State of California
AIR RESOURCES BOARD

AMENDMENTS TO THE REGULATION FOR THE MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS

FINAL STATEMENT OF REASONS

December 2018

This Page Intentionally Left Blank

TABLE OF CONTENTS

State of California
AIR RESOURCES BOARD

**Final Statement of Reasons for Rulemaking,
Including Summary of Comments and Agency Response**

PUBLIC HEARING TO CONSIDER AMENDMENTS TO THE REGULATION FOR THE MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS

Public Hearing Date: **November 15, 2018,** and **December 13, 2018**

Agenda Item No.: **18-8-9**; **18-10-6**

I. GENERAL

A. ACTION TAKEN IN THIS RULEMAKING

In this rulemaking, the California Air Resources Board (CARB or Board) staff is proposing to amend the Regulation for the Mandatory Reporting of Greenhouse Gas (GHG) Emissions (reporting regulation or MRR) to ensure the reported GHG data are accurate and fully support the California Cap on Greenhouse Gas Emissions and Market Based Compliance Mechanisms (title 17, California Code of Regulations, section 95800 et seq.) (Cap-and-Trade Regulation). Staff is also proposing amendments to ensure the data that are collected for CARB's other climate change programs are complete and accurate.

The amendments were developed pursuant to the requirements of the California Global Warming Solutions Act of 2006, also known as Assembly Bill 32 (AB 32). The amendments are codified at California Code of Regulations title 17, sections 95101, 95102, 95103, 95111, 95115, 95118, 95152, and 95153.

The Staff Report: Initial Statement of Reasons for Rulemaking (staff report), entitled "Public Hearing to Consider the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions", released September 4, 2018, is incorporated by reference herein. The staff report contained a description of the rationale for the proposed amendments. On September 4, 2018, all references relied upon and identified in the staff report were made available to the public.

The regulatory amendments as proposed would:

- Support California's Cap-and-Trade Regulation to ensure consistency with the calculation of compliance obligations

- Ensure that reported GHG emissions and product data are accurate and complete in order to support California's GHG reduction programs, including imported electricity emissions from the California Independent System Operator's (CAISO) Energy Imbalance Market (EIM)

At its initial November 15, 2018 public hearing, CARB staff informed the Board of proposed amendments to MRR. The Board did not take action on the proposal at the November 2018 Board hearing, but directed staff to make additional 15-day changes to MRR as appropriate as part of a subsequent 15-day notice to the rulemaking package.

During the initial comment period and the subsequent 15-day public comment period, the public submitted comments on the proposed amendments.[1] The 45-day comment period commenced on September 7, 2018, and ended on October 22, 2018, with additional oral and written comments submitted at the November 15, 2018 Board hearing. The 15-day comment period occurred from November 15, 2018 to November 30, 2018.

At a second public hearing held on December 13, 2018, the Board approved Resolution 18-52, adopting the proposed regulatory amendments. The Resolution also directed the Executive Officer to finalize the Final Statement of Reasons (FSOR) for the regulatory amendments and to submit the final rulemaking package to the Office of Administrative Law for review. The FSOR provides written responses to all comments received on the proposed amendments during the 45-day and 15-day comment period, and oral comments given at the Board hearing on November 15, 2018 and December 13, 2018.

B. MANDATES AND FISCAL IMPACTS TO LOCAL GOVERNMENTS AND SCHOOL DISTRICTS

The Board has determined that this regulatory action will not result in a mandate to any local agency or school district the costs of which are reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

The Board has also determined that this regulatory action will not create additional costs or impose a mandate upon any local agency or school district, whether or not it is reimbursable by the State pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code. Although some government agencies may be affected, they are affected only because they are subject to a generally applicable rule for all similarly-situated reporters; there is no specific mandate to local government. Accordingly, there is no mandate for purposes of the Government Code.

Specifically, some public local government agencies are affected by the updates to the Reporting Regulation. Thirty-five local entities that directly or indirectly purchase electricity through the EIM are estimated to have a combined cost increase of $198,823

[1] All public comments received on the proposed amendments can be found online at: https://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=ghg2018

over eight years. These cost increases are associated with the local entities making minor changes in how their GHG data are reported, and for 17 of the 35 entities who will require third-party verification who were not previously subject to verification requirements.

C. CONSIDERATION OF ALTERNATIVES

Staff evaluated small business applicability based on reporting requirements from the years 2012 to 2017. After a thorough evaluation of the reported data, staff determined that there are no small businesses subject to this Regulation in California.

For the reasons set forth in the Staff Report, in staff's comments and responses at the hearing, and in this FSOR, the Board determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or would be as effective and less burdensome to affected private persons, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law than the action taken by the Board. Further, none of the options that would have enabled California to meet AB 32 goals were as cost effective as the proposed Regulation and substantially address the public problem stated in the notice. Staff provides a discussion of each alternative in Chapter IX. of the Staff Report for the proposed amendments.[2]

II. MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL

A. MODIFICATIONS APPROVED AT THE BOARD HEARING AND PROVIDED FOR IN THE 15-DAY COMMENT PERIOD

Pursuant to Board direction provided at the November 15, 2018 meeting, CARB released Notices of Public Availability of Modified Text and Availability of Additional Documents and Information (15-Day Notices) on November 15, 2018, which presented additional modifications to the regulatory text after consultation with stakeholders.

III. DOCUMENTS INCORPORATED BY REFERENCE

No documents are incorporated by reference in this regulation.

IV. SUMMARY OF COMMENTS MADE DURING THE 45-DAY COMMENT PERIOD AND AGENCY RESPONSES

Chapter IV of this FSOR contains all comments submitted during the 45-day comment period and the November 15, 2018 Board hearing that related to the proposed amendments or to the procedures followed by CARB in proposing the amendments, together with CARB's responses. The 45-day comment period commenced on

---

[2] California Air Resources Board. Notice of Public Availability of Modified Text. Posted September 4, 2018. Available online at: https://www.arb.ca.gov/regact/2018/ghg2018/ghg2018.htm

September 7, 2018, and ended on October 22, 2018, with additional comments submitted at the November 15, 2018 Board hearing on the proposed amendments.

CARB received 11 letters on the proposed amendments during the 45-day comment period or at the Board hearing. In addition, 74 commenters gave oral testimony at the November 2018 Board hearing. CARB also received 7 letters on the proposed amendments during the 15-day comment period, and 19 commenters gave oral testimony (three of which also submitted written comments) at the December 2018 Second Board hearing. To facilitate the use of this document, comments are categorized into sections, and are grouped by response wherever possible.

Table IV-1 below lists commenters that submitted oral and written comments on the proposed amendments during the 45-day comment period and at the November 15, 2018 Board hearing, identifies the date and form of their comments, and shows the abbreviation assigned to each.

The individually submitted comment letters for the 45-day and 15-day comment periods are available here:
https://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=ghg2018

This rulemaking is for amendments to the CARB Greenhouse Gas Mandatory Reporting Regulation. However, comments were also submitted to this rulemaking which relate to the separately noticed Cap-and-Trade Program rulemaking, which is outside the scope of the proposals identified in the Staff Report, Notices of Modified Regulatory Text, and this FSOR. Statute only requires responses to comments directly submitted as part of a specific rulemaking, and this FSOR provides responsive comments only to those comments related to this specific rulemaking.

Note that some comments were scanned or otherwise electronically transferred, so they may include minor typographical errors or formatting that is not consistent with the originally submitted comments. However, all content reflects the submitted comments. All originally submitted comments are available here: https://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=ghg2018. The transcript for any verbal testimony presented during the first Board hearing is available here: https://www.arb.ca.gov/board/mt/2018/mt111518.pdf. The transcript for any verbal testimony presented during the second Board hearing is available here: https://www.arb.ca.gov/board/mt/2018/mt121318.pdf

A. List of Commenters

A-1. Table IV-1

Abbreviation	Commenter
CAISO1	Andrew Ulmer, California Independent System Operator Written Testimony: 10/22/2018
PACCORP1	Mary Wiencke, PacifiCorp Written Testimony: 10/22/2018
LADWP1	Cindy Parsons, Los Angeles Department of Water and Power Written Testimony: 10/22/2018
BPA1	Alisa Kasewater, Bonneville Power Administration Written Testimony: 10/22/2018
PWX1	Michael Benn, Powerex Corp Written Testimony: 10/22/2018 *This comment was received in duplicate*
RHODAFRY	Rhoda Fry Written Testimony: 10/22/2018
SOCALGAS1	Mark Casias, Southern California Gas Company Written Testimony: 10/22/2018
UC	Nicholas Balisteri, University of California Written Testimony: 10/22/2018
AWEA	Danielle Osborn Mills, American Wind Energy Association Written Testimony: 10/22/2018
LONGBEACH1	Diana Tang, City of Long Beach Oral Testimony: 11/15/18
CLFP	John Larrea, California League of Food Producers Oral Testimony: 11/15/18
PACCOASTPRODUCERS	Erick Watkins, Pacific Coast Producers Oral Testimony: 11/15/18
BOSWELL	Dennis Tristao, J.G. Boswell Company Oral Testimony: 11/15/18
ENVENTREPRENEURS	Michelle Embury, Environmental Entrepreneurs Oral Testimony: 11/15/18
CROCKETTCOGEN1	Peter Weiner, Paul Hastings Oral Testimony: 11/15/18
COVANTA1	Scott Henderson, Covanta Oral Testimony: 11/15/18
CCPC	Shelly Sullivan, Climate Change Policy Coalition Oral Testimony: 11/15/18

Abbreviation	Commenter
CALCHAMBER	Leah Silverthorn, California Chamber of Commerce Oral Testimony: 11/15/18
CMTA1	Naomi Padron, McHugh, Koepke and Associates Oral Testimony: 11/15/18
ACR	Arjun Patney, American Carbon Registry Oral Testimony: 11/15/18
IEEP	Luis Portillo, Inland Empire Economic Partnership Oral Testimony: 11/15/18
ROSEVILLEELECTRIC	David Siao, Roseville Electric Oral Testimony: 11/15/18
CSCME	Bruce Magnani, Coalition for Sustainable Cement Manufacturing and the Environment Oral Testimony: 11/15/18
BLUESOURCE	Roger Williams, Bluesource Oral Testimony: 11/15/18
SCPPA1	Tanya DeRivi, Southern California Public Power Authority Oral Testimony: 11/15/18
VERA	Jon Costantino, Verified Emissions Reduction Association Oral Testimony: 11/15/18
PG&E1	Fariya Ali, Pacific Gas and Electric Oral Testimony: 11/15/18
CMUA	Tony Braun, California Municipal Utilities Association Oral Testimony: 11/15/18
NEXTGEN	David Weiskopf, NextGen America Oral Testimony: 11/15/18
MARATHON	Brian McDonald, Marathon Petroleum Company Oral Testimony: 11/15/18
P&G	Simon Martin, Proctor & Gamble Oral Testimony: 11/15/18
BLOOM	Brian Biering, Bloom Energy Oral Testimony: 11/15/18
AECA	Maddie Munson, Agricultural Energy Consumers Association Oral Testimony: 11/15/18
NCCRC	Tim Litton, Northern California Carpenters Regional Council Oral Testimony: 11/15/18

Abbreviation	Commenter
SEMPRA	Tim Carmichael, Sempra Utilities, SoCalGas, San Diego Gas and Electric Oral Testimony: 11/15/18
NEARZERO1	Danny Cullenward, Near Zero Oral Testimony: 11/15/18
BICEP	Patty Moddelmog, Business for Innovative Climate and Energy Policy, Ceres Oral Testimony: 11/15/18
SMUD1	Timothy Tutt, Sacramento Municipal Utility District Oral Testimony: 11/15/18
ORANGECOVE1	Victor Lopez, Mayor of Orange Cove, Central Valley Latino Mayors & Elected Officials Coalition Oral Testimony: 11/15/18
COACHELLA	Patrick Swarthout, Great Coachella Valley Chamber of Commerce Oral Testimony: 11/15/18
FRESNOCC	Nathan Alonzo, Fresno Chamber of Commerce Oral Testimony: 11/15/18
FOWLER	Daniel Parra, City of Fowler and Central Valley Latino Mayors & Elected Officials Coalition Oral Testimony: 11/15/18
LSMA	Maria Guriato, Latino Seaside Merchants Association Oral Testimony: 11/15/18
NANLA	Vivian Williams, National Action Network of Los Angeles Oral Testimony: 11/15/18
MINISTERCONVENTION	Jarron Nichols, Baptist Ministers Convention, National Action Network and Compton NAACP Oral Testimony: 11/15/18
HOLMANUMC	Oliver E. Buie, Holman United Methodist Church Oral Testimony: 11/15/18
LBA	Andrea Navarrete, for Dr. Ruben Guerra and Latino Business Association Oral Testimony: 11/15/18
ADAMS1	Lovester Adams, Baptist Ministers Convention Oral Testimony: 11/15/18
BMC	Jack Wilson, Baptist Ministers Conference of Los Angeles Oral Testimony: 11/15/18
GSBC	Prentiss Lewis, Greater Starlight Baptist Church Oral Testimony: 11/15/18

Abbreviation	Commenter
MOSELY	Jonathan Mosely, National Action Network Oral Testimony: 11/15/18
PLACERVILLE	Michael Saragosa, City of Placerville Oral Testimony: 11/15/18
CHOC	Anna Solorio, Community Housing Opportunities Corporation Oral Testimony: 11/15/18
EDF1	Katelyn Roedner Sutter, Environmental Defense Fund Oral Testimony: 11/15/18
NCPA1, MSRPP and GOLDENSTATEPOWER1	Susie Berlin, Northern California Public Power, MSR Public Power and Golden State Power Cooperative Oral Testimony: 11/15/18
MILKPRODUCE	Kevin Abernathy, Dairy Cares & Milk Producers Council Oral Testimony: 11/15/18
CALDEMWOMEN	Carolyn Fowler, California Democratic Party Women's Caucus Oral Testimony: 11/15/18
VICA	Ryan Hallenberg, Valley Industry and Commerce Association Oral Testimony: 11/15/18
AAFC	Will Scott, African-American Farmers of California Oral Testimony: 11/15/18
CDCCB	Ron Chavez, Community Development for California Community Builders Oral Testimony: 11/15/18
PGCS1	Juan Garcia, PG Cutting Services Oral Testimony: 11/15/18
MCFB	Christina Beckstead, Madera County Farm Bureau Oral Testimony: 11/15/18
NISEI1	Peter Aguyo, Nisei Farmers League Oral Testimony: 11/15/18
ORANGECOVE2	Roy Rodriguez, City of Orange Cove and Central Valley Latino Mayors & Elected Officials Coalition Oral Testimony: 11/15/18
VISIONS	Ron Hayes, Visions of Heaven Church and Visions Community Outreach Oral Testimony: 11/15/18
BIZFED	Melissa Travgh, BizFed Central Valley Oral Testimony: 11/15/18
TCFB	Tricia Stever Blattler, Tulare County Farm Bureau Oral Testimony: 11/15/18

Abbreviation	Commenter
GLBC	James R. Jones, Jr., Greater Liberty Baptist Church, Ministers Alliance Oral Testimony: 11/15/18
NAN	Rae Williams, National Action Network Oral Testimony: 11/15/18
SJFB	Bruce Blodgett, San Joaquin Farm Bureau Oral Testimony: 11/15/18
SPI	Cedric Twight, Sierra Pacific Industries Oral Testimony: 11/15/18
NEWFORESTS1	Emily Warms, New Forests Oral Testimony: 11/15/18
CFCC	Tony Brunello, California Forest Carbon Coalition Oral Testimony: 11/15/18
USALREDWOOD	Tom Tuchman, Usal Redwood Forest Company Oral Testimony: 11/15/18
CAMPBELL	Thomas Maulhardt, Campbell's Soup Company Oral Testimony: 11/15/18
PG&E2	Mark Krausse, Pacific Gas and Electric Oral Testimony: 11/15/18
WSPA1	Tiffany Roberts, Western States Petroleum Association Oral Testimony: 11/15/18
CHEVRON	Julia Bussey, Chevron Corporation Oral Testimony: 11/15/18
PANOCHE1	Robin Shropshire, Panoche Energy Center Oral Testimony: 11/15/18
CCEEB	Michael Skvarla, California Council for Environmental and Economic Balance Oral Testimony: 11/15/18
APC	Cody Boyles, Agricultural Presidents Council Oral Testimony: 11/15/18
PHILLIPS66	Steven Smith, Phillips 66 Oral Testimony: 11/15/18
IPRE	Nico Aelstyn, Indigenous Peoples Reducing Emissions Written Testimony: 11/15/18

B. EIM OUTSTANDING EMISSIONS

B-1. Multiple Comments: Concerns with 45-Day EIM Purchaser Approach

Comment:
The California Independent System Operator Corporation (ISO) submits these comments on proposed amendments to California's cap and trade and mandatory greenhouse gas reporting regulations issued by the California Air Resource Board (ARB), which would establish a compliance obligation and accounting rules for Energy Imbalance Market (EIM) outstanding emissions.[3] The ISO does not support adoption of the proposed amendments. As an alternative, the ISO recommends ARB maintain its existing "bridge" mechanism for EIM outstanding emissions for the 2019 cap and trade compliance year. This approach will allow ARB and stakeholders to monitor planned enhancements to the EIM as well as develop a more accurate measure of the volume and emission intensity of EIM outstanding emissions.

I. Introduction

The ISO supports California's efforts to track and reduce greenhouse gas emissions in California's electricity sector and will continue to work collaboratively with state agencies and stakeholders to advance this objective. Among other efforts, the ISO's implementation of the western EIM has facilitated the integration of increasing amounts of renewable energy resources in the Western Interconnection that have helped reduce greenhouse gas emissions from the electricity sector. The EIM is an extension of the ISO's real-time market that helps balance supply and demand in the ISO balancing authority area as well as in EIM Entities' balancing authority areas. The use of the EIM permits other balancing authority areas to take advantage of the ISO's real-time market processes and facilitates transfers of power across the combined ISO and EIM footprint based on available transmission capability. Since its inception, the EIM has facilitated economic transfers of energy between the ISO and EIM Entities. These transfers have in part supported the operation of non-emitting clean resources. For example, in the second quarter of 2018, the EIM allowed the ISO to avoid the curtailment of over 129,128 MWh of renewable output in the ISO balancing authority area that displaced an estimated 55,267 metric tons of carbon dioxide equivalents.[4] As the EIM footprint grows and more renewable energy resources develop in the West, the EIM will continue to facilitate these emission reductions. ARB's regulations do not account for these emission reductions, but ARB should acknowledge that the EIM creates significant emission reduction benefits across the region as ARB considers rule changes related to EIM outstanding emissions.

Under ARB's current cap and trade and mandatory greenhouse gas reporting regulations, ARB treats EIM transfers serving ISO demand in California as electricity

---

[3] ARB issued these proposed amendments for public comment on September 4, 2018

[4] Western EIM Benefits Report Second Quarter 2018 dated July 31, 2018 at 13, available at https://www.westerneim.com/Documents/ISO-EIMBenefitsReportQ2_2018.pdf.

imports. ARB relies on the ISO's market results as reported by EIM participating resource scheduling coordinators to identify resources that support those transfers and applies a specified source emission rate to those imports. ARB imposes reporting and compliance obligations on EIM participating resource scheduling coordinators representing these resources.

In response to stakeholder concerns that the ISO's least cost dispatch in the EIM may result in secondary or backfill dispatch[5] when EIM transfers serve California demand, ARB adopted regulatory changes to account for emissions associated with the potential for secondary dispatch. These changes established an interim "bridge" to account for what ARB identifies as EIM outstanding emissions. To account for EIM outstanding emissions, ARB currently calculates the difference between total EIM transfers at ARB's unspecified source emission rate less the total resource-specific emissions attributed to EIM participating resource scheduling coordinators as a result of the ISO market optimization. ARB retires allowances designated by ARB for auction that remain unsold in ARB's Auction Holding Account for more than 24 months in the amount of EIM outstanding emissions

II. ARB should maintain its current "bridge" approach for the 2019 cap and trade compliance year.

ARB has proposed to amend its regulations to recognize an EIM Purchaser as the compliance entity for EIM outstanding emissions. Under the proposed amendments, an EIM Purchaser would be defined as "an entity that purchases electricity through the EIM either to serve California load or to deliver or sell the purchased electricity to an entity, or on behalf of an entity, serving California load."[6] According to ARB's initial statements of reasons, this entity could include scheduling coordinators for load serving entities or generators within the California ISO or another California balancing authority area participating in the EIM.[7] ARB has proposed to calculate the obligation as an EIM Purchaser's share of EIM outstanding emissions. ARB's proposed amendments to the mandatory reporting regulation state:

> [E]ach EIM Purchaser must calculate, report, and cause to be verified, energy consumption, expressed in MWs, resolved by imbalance energy procured in the

---

[5] The phenomenon known as secondary dispatch occurs because least cost dispatch has the effect of attributing EIM transfers to lower emitting participating resources based on their combined energy bid and greenhouse gas (GHG) bid adder. Other, potentially higher-emitting, resources may need to backfill this energy attribution in order to serve load outside of the ISO.

[6] ARB's *Staff Report: Initial Statement of Reasons*, supporting proposed amendments to the cap and on GHG emission, Appendix A – proposed regulation order at p. 4, available at https://www.arb.ca.gov/regact/2018/capandtrade18/ct18pro.pdf, and ARB's *Proposed Regulation Order* to the proposed

[7] ARB's *Staff Report: Initial Statement of Reasons,* supporting the proposed amendments to the cap on GHG emissions at pp. 69-73, available at https://www.arb.ca.gov/regact/2018/capandtrade18/ct18pro.pdf; *see also* ARB's *Staff Report: Initial Statement of Reasons,* supporting the proposed amendments to the mandatory reporting regulation at pp. 6-8, available at https://www.arb.ca.gov/regact/2018/ghg2018/isor.pdf.

CAISO market used to serve California load, or to deliver or sell the purchased electricity to an entity, or on behalf of an entity, serving California load.

ARB proposes that this calculation occur for every 5-minute real-time dispatch interval based on imbalance energy procured in the ISO market. ARB states that it intends to coordinate with the ISO and EIM Purchasers to design a reporting workbook based on the proposed regulatory requirements that can be easily utilized to report the data required by EIM Purchasers. Starting in 2020, entities would report 2019 data from April 1, 2019 through December 31, 2019, and receive a compliance obligation for 2020, and annually thereafter.

The proposed amendments to ARB's cap and trade and mandatory reporting regulations would (1) create a complicated accounting and compliance regime that may not accurately reflect the cause of any emissions from the potential for secondary dispatch; (2) extend compliance requirements to new entities that may not have a means to recover the costs of compliance and that are not a direct source of emissions; (3) may cause adverse electricity market outcomes; and (4) would over-count secondary dispatch volumes and over-state EIM outstanding emissions. The ISO encourages ARB not to adopt the proposed amendments and instead continue to utilize its bridge solution. As ARB is aware, the ISO has proposed changes to its EIM design that will reduce the potential for secondary dispatch.[8] The ISO is targeting an implementation date for these changes on November 1, 2018. In addition, other states are exploring GHG emission programs which could have the effect of reducing secondary dispatch of resources as a result of EIM transfers to serve California demand. ARB should maintain its current bridge through at least the 2019 reporting year to assess the magnitude of secondary dispatch emissions that may occur as a result of EIM transfers to serve California demand. ARB should use the information we learn from 2019 EIM operations to inform the any going forward regulation changes to account for EIM outstanding emissions.

A. The proposed amendment would create a complicated accounting and compliance regime that may not accurately reflect the cause of any emissions from the potential for secondary dispatch.

EIM transfers to serve California demand can occur for a number of reasons: *e.g.,* economic displacement of a more expensive resource within the ISO, a change in the demand forecast, or congestion of the transmission system. The proposed amendments would attempt to correlate 5-minute transfers that occur through the EIM to serve California demand to scheduling coordinators representing load serving entities and resources that have real-time imbalances. This proposal will require covered entities to gather and ARB to validate a voluminous amount of data for reporting and compliance purposes. The amendments do not recognize that an imbalance from a day-ahead

[8] See, ISO tariff amendment regarding Energy Imbalance Market Bid Adder in Federal Energy Regulatory Commission docket ER18-2341 dated August 29, 2018, available at https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15011459.

position can occur for a variety of reasons and there is no way to allocate with precision whether an EIM transfer that served California demand addressed that imbalance or whether another resource addressed that imbalance…

C. The proposed amendments could create adverse electricity market outcomes relating to resources response to dispatch instructions and submissions of day ahead schedules.

In establishing a compliance obligation tied to imbalances, ARB may create an incentive for resources to deviate from dispatch instructions. A resource that has a negative deviation from its day-ahead schedule will face a charge for imbalance energy in the ISO's market, even if that deviation results from an ISO instruction. However, if a resource also faces the risk of a compliance obligation under ARB's regulations, it may not respond to an economic dispatch instruction to reduce its output relative to its day-ahead position. ARB should not create such an incentive through its regulations. The proposed amendments could also discourage variable energy resources from submitting day-ahead schedules and real-time bids, thus exacerbating and complicating management of oversupply conditions. The proposed amendments would create an incentive for these resources to always have a positive deviation from a day-ahead schedule so as to avoid a compliance obligation as an EIM Purchaser. By not submitting day-ahead schedules or not submitting real-time bids, a variable energy resource would always avoid being an EIM Purchaser. This incentive directly conflicts with the need for the CAISO to have greater participation in the day-ahead market by variable energy resources. This participation helps ensure efficient unit commitment and price formation.

The ISO recommends that ARB not undertake a rulemaking to adopt changes to its bridge solution until stakeholders have a year of operation using the ISO's pending market enhancement for attributing to EIM participating resources EIM transfers serving California demand. This approach will allow time to assess the effects of the new design. ARB could then use such information to guide what, if any, regulatory changes are necessary to address any remaining secondary dispatch effects. This information could also help ARB develop a more accurate residual emission rate as it assesses whether to establish a new compliance requirement and to which entities it should apply. (CAISO1)

Comment:
PacifiCorp does not own or operate emitting resources in California and is subject to the Cap-and-Trade Program and MRR solely as an electricity importer: PacifiCorp imports energy into California through service to its California retail load, bilateral wholesale sales, and the Energy Imbalance Market (EIM). PacifiCorp's comments are provided in two parts: one from its perspective as an electricity importer via the EIM and one from its perspective as a Multi- Jurisdictional Retail Provider (MJRP) serving retail load in California.

I. Energy Imbalance Market Comments

PacifiCorp continues to have significant legal and practical concerns with California Air Resources Board (ARB) regulation of secondary dispatch emissions, which result from activity entirely outside of California and with only a causal link to California load. While these concerns have not changed, they are not restated here and rather PacifiCorp's focus is on the proposal to impose a compliance obligation on California entities to account for secondary dispatch emissions in the EIM. There are three primary concerns with the ARB's proposal: 1) it unfairly imposes an overstated compliance obligation on California entities for the activity completely outside of their control; 2) it presents a one-sided picture of the emissions impact of the EIM; and 3) it further exacerbates the discrepancy between the treatment of secondary dispatch emissions in the EIM and the bilateral market. Each of these issues is addressed in turn below.

a. At Minimum, ARB Should Wait to Impose a Compliance Obligation on EIM Purchasers Until the Impact of Changes to the California Independent System Operator (CAISO) Resource Attribution Can Be Assessed

The quantity of secondary emissions occurring in the EIM during any five-minute interval depends on the resource attribution method employed by the CAISO to identify the resources that are imported into the CAISO balancing authority area as well as the combined effect of resource needs and market behavior of all EIM Entities. While EIM Entities establish and schedule their resources, they do not have control over the ultimate dispatch nor do they control the resources that are deemed delivered to California by the CAISO. EIM Purchasers, as proposed to be defined by the ARB, do not have the ability to influence the scheduling and resource needs of EIM Entities. A policy that imposes an obligation on entities for behavior and activities that are happening wholly outside of California and over which they have no control is unfair and punitive. In particular in light of the CAISO's efforts to reduce the quantity of secondary dispatch emissions in the EIM, the imposition of an incremental compliance obligation on specific California entities in this context simply amounts to a penalty. PacifiCorp recommends that the ARB maintain its current approach at least until it can evaluate the effect of changes made by the CAISO to reduce secondary dispatch emissions in the EIM. …

c. *ARB's Proposal Further Exacerbates the Different Treatment Between the EIM and the Bilateral Wholesale Energy Market*

Secondary dispatch emissions is not a phenomenon isolated to the EIM. Any specified sale of zero-emitting energy made to a counterparty in California may have cascading effects on energy transaction and load-service decisions made across the West. California's policy preference for zero-emitting resources creates an economic incentive to sell zero-emitting energy to California and to sell emitting energy elsewhere or use it for load-service outside of California. Similar to the EIM, entities in California most likely have little or no insight into the manner in which entities selling non-emitting specified resource energy serve their load or otherwise sell their emitting energy. Similar to the EIM, PacifiCorp would argue that the ARB's jurisdictional reach does not extend beyond its borders to decisions made entirely outside of California. Rather than representing a unique phenomenon, the EIM merely provides more transparency and a market

operator able to calculate a secondary dispatch emissions quantity. This differential treatment could disincentivize EIM participation, which as discussed above has been instrumental in reducing overall emissions across PacifiCorp's system. PacifiCorp recommends that the ARB align treatment for the EIM and the bilateral wholesale market. (PACCORP1)

Comment:
My other public power utility colleagues will also be talking about our preference that CARB extend the bridge solution for the CAISO Energy Imbalance Market for an additional year to gather additional information about it, before making changes on what is a very complicated issue that we are dealing with now. (SCPPA1)

Comment:
My comments are limited to one issue, and that is the issue of the outstanding emissions and allocating those obligations as a consequence of the operation of the Energy Imbalance Market. Let me begin with by noting upfront that this is an extremely difficult issue.

It occurs at the confluence of a complicated Cap-and-Trade Program, and perhaps even more complicated wholesale market operation and design. The market is not a closed system.

Actions happen outside the market that affect the market. Actions happen outside California that affect California. We can't control those.

And it's even more difficult -- it's very difficult to control them, and it's even difficult to account for them and allocate obligations accordingly. And so what we've done to date is to take the allowances associated with these outstanding emissions and retire them from the unsold pool of allowances.

And that seemed like a reasonable approach, given the complexity of the issue of the lack of data and the clear right answer going forward. And we'd urge the Board to consider continuing that so-called bridging solution for number of reasons. One, we don't have any data on how this is going to work. The ISO's new market methodology for accounting for these outstanding emissions hasn't been put in place yet.

And we won't -- even though the proposed effective date is April 1, we won't have a lot of data even by that metric. And the market and the market scope continues to change. There is no link to behavior.

No EIM entity within California that may see these costs is going to change its behavior.

And there's no link between their behavior in real-time and the attribution of these costs. So it fundamental -- violates some fundamental tenets associated with just policy development. EIM reduces carbon emissions. The ISO studies have found that.

And more work outside by some of the EIM entities, show that the dispatch of their fleets, including their coal fleets, have been modified.

And that work continues.

And we should have an opportunity to continue to understand that data and how EIM reduces carbon emissions, and actually furthers the goals that the State is trying to achieve.

And finally, there's an element of no good deed goes unpunished here.

California entities have been -- that are outside the ISO have been encouraged to collaborate closely with the ISO. And to that end, the Balancing Authority of Northern California and SMUD are set to actually go live with EIM implementation in April of next year. If they had not taken that step, they wouldn't see these costs.

Under the proposal, they will see those costs.

So there seems to be a little bit of -- we could do a little learning here.

And so we would encourage the Board to consider keeping the bridging solution moving forward. (CMUA)

Comment:
We also support the comments regarding maintaining the EIM bridging solution and thank staff very much for all of their efforts on this. (GOLDENSTATEPOWER2)

> **Response:** Commenters have expressed concerns related to the 45-day proposal. In addressing these concerns, it helps to recall the development of the EIM-related provisions in the Cap-and-Trade and MRR Regulations. In 2014, the California Independent System Operator (CAISO) implemented an Energy Imbalance Market (EIM), which allows out-of-state entities to participate in trading of "imbalance" energy in CAISO's real-time energy markets. When importing out-of-state electricity to serve California load, the EIM market identifies, or "deems," electricity from certain out-of-state sources as dispatched to serve California load in part on the basis of the deemed sources' GHG emissions intensity.
>
> Under AB 32, CARB must account for statewide GHG emissions, including all emissions resulting from the generation of electricity delivered to and consumed in California, whether that electricity is generated in-State or imported to California to serve California load and minimize emissions leakage. In 2015, CARB found that the design of EIM does not account for the full GHG emissions experienced by the atmosphere from imported electricity under EIM and results in emissions leakage. Beginning in 2016, CAISO and CARB began coordinating to address GHG accounting inaccuracies in the EIM.
>
> In a rulemaking initiated in 2016 (2016 rulemaking), CARB initially proposed to address this issue by assigning a compliance obligation to entities purchasing EIM electricity ("EIM Purchaser") to serve California. CAISO then developed a proposal (called the Two-Pass Solution) designed to address the GHG

accounting issues within the EIM algorithm. This proposal was intended to more accurately capture incremental behavior, and emissions, from power plants importing power to California in response to changes in California load through the EIM market. CARB staff supported the further development of CAISO's two-pass market optimization approach as a mechanism, through reasonable changes to the CAISO algorithm, to provide a rigorous accounting framework for EIM and efficient and timely optimization.

As part of implementing the 2016 rulemaking, which took effect in 2017, CARB implemented a "bridge solution" to account for the full GHG emissions experienced by the atmosphere from imported electricity under EIM. CARB refers to these emissions as EIM Outstanding Emissions. The "bridge solution" was a temporary solution developed in anticipation of CAISO implementing its Two-Pass Solution at a later date. Under the "bridge solution," CARB currently retires allowances that have remained unsold at auction for greater than 24 months in equal proportion to EIM Outstanding Emissions.

In late 2017, CAISO conducted testing of the existing EIM and Two-Pass Solution. The testing showed the Two-Pass Solution more fully captured the GHG emissions resulting from electricity serving California load. However, stakeholders in the CAISO public process identified potential issues with the Two-Pass Solution. Based on stakeholder feedback, CAISO decided not to implement the Two-Pass Solution.

In early 2018, CAISO released a new proposal that would limit the amount of electricity available to support EIM imports to California by constraining individual resource bids to amounts above the base schedule. CAISO implemented its new proposal in late 2018, once Federal Energy Regulatory Commission (FERC) approval was received.

CAISO's new mechanism to limit bids is expected to improve the accuracy of GHG emissions accounting, but within any given five-minute interval, the EIM model could still be attributing lower-emitting resources to serve California load without accurately capturing the emissions resulting from the imported electricity. When the EIM model determines which out-of-state resources are deemed delivered to California in a particular interval, it will always minimize costs by attributing delivery to the cleanest participating resources that elected to be deemed delivered to serve California load. The cleanest resources are deemed delivered regardless of whether the emissions associated with those specific resources are the only emissions used to satisfy the EIM energy transfer to California. Given the inherent design of the EIM model, the system, even with CAISO's mechanism to limit bids, would not address all of staff's EIM GHG accounting concerns.

CARB supports CAISO's mechanism to limit the bid quantity in the EIM and must ensure that our climate programs are accounting for all GHG emissions from electricity serving California load. The adopted amendments calculate EIM

Outstanding Emissions as the additional emissions of resources not deemed to California and not currently accounted for in the EIM, but which are serving California load, as further discussed in Response to Comment B-3. The fact that costs related to these resources are not being captured in the EIM algorithm is evidence of EIM emissions leakage that CARB is addressing with the implementation of the EIM Purchaser provisions of the recently approved Cap-and-Trade and MRR Regulations.

Some commenters request CARB retain the existing "bridge solution" to account for EIM emissions leakage. CARB declines to make this change. The "bridge solution" was always intended to be a temporary solution until CAISO could implement a solution that would fully address emissions leakage in the algorithm directly. Emissions leakage will still occur even with CAISO's recent modifications, and implementing the EIM Purchaser approach was needed to shift the responsibility for addressing EIM emissions leakage and ensure the environmental integrity of the Program from the State to the entities in the electricity sector.

CARB proposed the 45-day revisions to better account for EIM emissions leakage and to shift the responsibility for addressing this leakage from the State under the temporary bridge solution, to the entities in the electricity sector. To address the commenters' concerns with the 45-day proposal, staff made 15-day changes to provide a simpler and more implementable way to quantify and compensate for EIM emissions leakage than in the 45-day proposal. The 45-day proposal would have potentially included in-State generators with negative imbalances as covered entities, in some cases causing entities to be newly covered by the Program. Commenters expressed concern about how such entities would understand and manage their potential obligation and about how the proposed 45-day compliance obligation could create adverse changes to scheduling and bidding behavior in CAISO's markets. See Response to Comments B-2 for a further discussion of how the adopted amendments address these commenters' concerns.

The final amendments as adopted by the Board in December 2018 exclude in-State generators and limit EIM Purchasers to electrical distribution utilities (EDU) who purchase electricity from EIM and receive freely allocated allowances. This approach only includes entities already in the Cap-and-Trade Program and reporting in MRR, specifically the EDUs that participate in CAISO. It is only these entities that will be responsible for addressing EIM emissions leakage.

Commenters also expressed concern regarding how to anticipate the size of compliance obligations generated through participation in the EIM and how to then manage that obligation, including how to collect sufficient revenues to acquire and meet the proposed Cap-and-Trade compliance obligation. Both of these concerns are addressed in the 15-day changes to the Cap-and-Trade Regulation, as EIM Purchaser Emissions would now be addressed through direct retirement of allowances that are freely allocated to EIM Purchasers instead of

requiring entities to acquire allowances based on an after-the-fact compliance obligation. The retirement of freely allocated allowances removes the requirement for EIM Purchasers to actively address EIM emissions leakage through a direct compliance obligation.

Some commenters suggest there is the potential for other emissions leakage related to electricity imports. The Cap-and-Trade Regulation includes specific prohibitions related to resource shuffling, and CARB continues to monitor and address emissions leakage as needed and required by AB 32 to ensure the overall environmental integrity of the Program.

Commenters express concern that the EIM Purchaser requirements do not impact the carbon price signal in the EIM. CARB notes that AB 32 requires CARB to minimize emissions leakage, as well as to accurately account for emissions associated with electricity serving California load. The adopted amendments allow CARB to fully account for GHG emissions resulting from electricity generated to serve California load in the EIM. CARB will continue to work with CAISO as it assesses how the EIM market design could be enhanced to improve the carbon price signal and directly account for the full GHG emissions at the time of dispatch when determining which resources support California load. Should such EIM market improvements are implemented, the EIM Purchaser requirements will no longer be necessary.

Some commenters express concern regarding the regulatory purpose and authority of CARB with regards to greenhouse gas emissions and imported power. In particular, one commenter asserts that CARB's jurisdictional reach does not extend beyond its borders to decisions made outside of California. However, in this case, CARB is regulating the conduct of electricity importers in California participating in the EIM. CARB is not regulating entities outside of its borders. Ultimately, CARB has the authority to regulate imported power and electricity importers and related emissions leakage as set forth in the MRR and the Cap-and-Trade Regulations pursuant to AB 32.

CARB also notes that in addressing EIM emissions leakage, it is not attempting to infringe on an area where FERC holds exclusive jurisdiction. CARB also addressed this concern in the October 2011 FSOR, in Response to Comment I-21.

See also Response to Comments B-2 on the revised definition of EIM Purchaser and Response to Comments B-3 addressing the calculation of EIM Outstanding Emissions and potential for unintended market impacts through changes to the calculation of EIM Purchaser Emissions.

B-2. Multiple Comments: Definition of EIM Purchaser

Comment:
B. The proposed amendments could extend compliance requirements to new entities that may not have a means to recover the costs of compliance and that are not a direct source of emissions.

If adopted, the proposed amendments could extend the application of ARB's cap and trade and mandatory reporting regulations to a number of new entities. Many of these entities may not have been allocated allowances under ARB's cap and trade program and therefore may not have a mechanism to cover their costs of compliance. These entities could include scheduling coordinators only serving load (*i.e.* that are not currently first deliverers under ARB's regulation) and who do not currently receive allowances as utility distribution companies. These entities could also include scheduling coordinators representing distributed and non-emitting resources located in California that are already helping to reduce emissions in California's electricity sector. Entities such as renewable resource owners have likely not planned for the costs of complying with ARB's program through their power purchase agreements. This may result inequitable outcomes that are outside of these entities' control. (CAISO1)

Comment:
AWEA California[9] provides the following provides the following comments in response to the California Air Resources Board's ("ARB") September 4, 2018 Notice of Proposed Amendments to the Mandatory Reporting Requirement Regulation. We have filed these comments in the California ARB's Cap-and-Trade rulemaking as well, due to the intersection of these two proceedings. AWEA California strongly supports the ARB's efforts to fight climate change, and as a general matter, supports the State's Cap-and-Trade program.

SUMMARY

These comments focus on potential changes to the Energy Imbalance Market ("EIM") language in the Cap-and-Trade rules. AWEA California appreciates the ARB's efforts to address this challenging and complicated issue. During the pre-rulemaking phase of this proceeding, AWEA California expressed concerns with potential amendments that would have placed a Cap-and-Trade compliance obligation on scheduling coordinators of zero emitting resources.[10] AWEA California greatly appreciates the ARB's

[9] Members of AWEA California include global leaders in utility-scale wind energy development, ownership, and operations. Many members also develop and own other energy infrastructure such as transmission lines, utility- scale solar, and energy storage. AWEA California is unanimous in its commitment to the need for—and widespread economic benefits derived from—a diverse and balanced resource portfolio in California that reliably and affordably meet state energy demands and environmental goals. We strive to direct the economic and environmental benefits of utility-scale wind energy to California

[10] See March 27, 2018 AWEA California comments, available at: https://www.arb.ca.gov/lists/com-attach/40-ct-3-2- 18-wkshp-ws-UWBcYlRlVjYCNQQy.pdf

receptiveness to its pre-rulemaking comments and supports the ARB's efforts to understand the technical implications of various methodologies for assessing and assigning the "outstanding emissions obligation" of "secondary dispatch". While AWEA California understands that the "EIM Purchaser" definition (i.e., as proposed on September 4) may be subject to further change, these comments express concerns with an unintended, "as-applied" aspect of the EIM Purchaser definition. As discussed below, AWEA California recommends revising the "EIM Purchaser" definition to avoid a scenario where a zero-emission resource operating in California could be assigned a portion of the "outstanding emissions obligation."

DISCUSSION

AWEA California has actively participated in the California Independent System Operator's ("CAISO") stakeholder initiative to develop a long-term "secondary dispatch" solution to replace the current solution that the ARB scoped into the 2016-2017 Cap-and-Trade Rulemaking. Through CAISO EIM -GHG stakeholder initiative, the ISO has reviewed several potential long-term solutions to identify and address emissions associated with "secondary dispatch." The CAISO has defined "secondary dispatch" to mean:

> [A] concern that the EIM GHG design is not fully capturing the impact to the atmosphere that occurs in connection with EIM transfers to serve CAISO load. Briefly, this concern relates to CAISO dispatches of EIM participating resources to serve CAISO load based on minimizing total costs of energy and GHG bid adders. The CAISO's least-cost dispatch can have the effect of attributing transfers to serve CAISO load to lower-emitting EIM participating resources because these resources face fewer or no costs to comply with ARB's regulations. In some instances, higher-emitting resources will need "to backfill" this dispatch to serve EIM load outside of the CAISO. The CAISO refers to this phenomenon as secondary dispatch.[11]

In the September 4, 2018 Proposed Amendments, the ARB would remove the "bridge-solution" and replace it with an emissions obligation that would be assigned to "EIM Purchasers." EIM Purchaser is defined in the Mandatory Reporting Regulation to mean: "an entity that purchases electricity through the EIM either to serve California load or to deliver or sell the purchased electricity to an entity, or on behalf of an entity, serving California load."[12] In the Initial Statement of Reasons for the Cap-and-Trade Regulation, the ARB acknowledges that "[u]nder the proposed definition of EIM Purchaser,

---

[11] See CAISO February 16, 2018 Second Revised Draft Final Proposal, available at: http://www.caiso.com/Documents/SecondRevisedDraftFinalProposal-EnergyImbalanceMarketGreenhouseGasEnhancements.pdf

[12] See Proposed 17 Cal. Code Reg. Sec. 95102 (September 4, 2018 Proposed Amendments), available at: https://www.arb.ca.gov/regact/2018/ghg2018/proregorder.pdf

scheduling coordinators for electricity generators located in California with negative imbalances may also be considered EIM Purchasers, if they are serving those imbalances through imported electricity in EIM.[13]

AWEA California is concerned that the September 4, 2108 proposal for the "EIM Purchaser obligation" could inappropriately place the "outstanding GHG emissions obligation" of "secondary dispatch" in the EIM on clean generation resources, such as wind, solar and hydro, operating inside of California. If implemented, the current proposal would create a situation where zero-emitting facilities operating inside of California are assigned a cap-and-trade compliance obligation when they have negative imbalances associated with their generation facilities. The uncertainty associated with having to participate in the Cap-and-Trade program as a clean energy resource would be most difficult to manage for clean energy resources that also act as their own Scheduling Coordinator and/or do not have contractual terms to address the cap- and-trade obligation that would be imposed by this proposed rulemaking.[14] Some of the Scheduling Coordinators for these resources are not already regulated under the Program and would potentially be subject to an after-the-fact assessment of cap-and-trade costs; they may not be able to be compensated for those costs under their contractual provisions. This outcome is not consistent with the signals the Cap-and-Trade program should send to encourage clean resources and their participation in the wholesale electricity markets. Additionally, AWEA California is concerned that it would be difficult for the ARB to assess when, and to what extent, negative imbalances are associated with EIM imports into California and to energy supplied to each generator. Thus, the proposed rulemaking would not result in any appreciable difference in the Cap-And-Trade program beyond the "bridge solution" that is in place today, but could place a new compliance obligation, with the associated financial obligations, on wind, solar and other clean generation sources in California.

Due to the additional time needed to adopt a durable secondary dispatch solution that has broad stakeholder support, the ARB should rely on the current interim bridge solution" through the 2020 emissions year. AWEA California also appreciates that the ARB does not wish to simply collect secondary dispatch information through the MRR and then remove a corresponding amount of allowances from the state cap-and-trade budget. AWEA California believes that on balance, it is more important to take the time needed to resolve these complex issues before implementing a solution that could have negative impacts on this important market. AWEA California looks forward to working with the ARB in implementing a solution to address the ARB's concerns regarding secondary dispatch. (AWEA)

---

[13] See 2018 Cap-and-Trade ISOR, available at: https://www.arb.ca.gov/regact/2018/capandtrade18/ct18isor.pdf

[14] See AWEA California March 1, 2018 Comments in EIM Stakeholder Initiative, available at: http://www.caiso.com/Documents/ACCComments-EIMGHGEnhancements-SecondRevisedDraftFinalProposal.pdf

Response: In response to commenters' concerns, staff modified the definition of EIM Purchaser in the 15-day package to limit the entities responsible for EIM Outstanding Emissions to EDUs receiving allowance allocation who are purchasing electricity directly or indirectly from the EIM. The 45-day proposal would have included in-State generators among the entities responsible for EIM Outstanding Emissions, including zero-emitting resources with negative imbalances as obligated entities. These entities are not assigned EIM Purchaser Emissions in MRR nor are they responsible for a share of EIM Outstanding Emissions in the adopted amendments to the Cap-and-Trade Regulation. Changes in the 15-day proposal reduced the number of entities responsible for EIM Outstanding Emissions to only include existing participating entities, specifically, the EDUs who purchase from the EIM and receive freely allocated allowances, as suggested by several commenters.

Staff also changed the Regulation to shift from apportioning EIM Outstanding Emissions based on reporting of 5-minute data, to apportioning the EIM Outstanding Emissions to each EIM Purchaser based on each EIM purchaser's share of annual retail sales. The combination of these changes removes the incentive for EIM Purchasers to alter scheduling and bidding behavior and improves ease of compliance and implementation. See also Response to Comments B-3 on the calculation of EIM Outstanding Emissions and EIM Purchaser Emissions.

B-3. Multiple Comments: Calculation of EIM Outstanding Emissions.

Comment:
D. The proposed amendments would over-count secondary dispatch volumes and over-state secondary dispatch emissions.

ARB's proposed amendments would calculate a compliance obligation for every 5-minute EIM transfer at the unspecified source emission rate to reflect the assumption that a secondary dispatch is occurring in connection with each 5 minute EIM transfer to serve California demand. This assumption is not correct and over-counts both the volume of secondary dispatch as well as the GHG intensity. The proposed amendments over-counts the volumes because they apply to the full MW of an EIM transfer to serve California demand rather than the actual MW associated with the secondary dispatch. For example, if during an interval there are EIM transfers to serve California demand and the EIM participating resources are all dispatched above their base schedule, then no secondary dispatch will occur. Under this scenario, the resource-specific emissions accurately reflect the emissions intensity of the EIM transfer serving California demand even if the attributed resources are non-emitting. The proposed regulations, however, would apply the unspecified source emission rate to the full transfer quantity.

III. ARB should work with the ISO and stakeholders to develop a more accurate measure of the volume and emission intensity of EIM outstanding emissions.

The ISO acknowledges that ARB's interim bridge relies on an approach that also overstates the volumes of emission intensity of secondary dispatches that may occur in

connection with EIM transfers to serve California demand. However, this assumption should not be made for a permanent solution in ARB's regulations. Secondary dispatches will not occur in all intervals. The ISO completed a re-run of market results from several trading days in October 2017 to assess the impact of its new design on secondary dispatches. For this time period, the ISO observed a 40 percent decrease in secondary emissions using its pending market enhancement. The ISO believes ARB needs to work with stakeholders to assess how to identify a more accurate assessment of secondary dispatch volumes that may give rise to EIM outstanding emissions.

The proposed amendments would also create a compliance obligation that overstates the emission intensity of secondary dispatches that do occur. Based on the re-run of market results from October 2017 using the ISO's pending market enhancement, the average emission rate of EIM participating resources that moved from their base schedules to address the need for secondary dispatches was four times less than the unspecified source emission rate used by ARB. The ISO believes ARB needs to work with stakeholders to assess how to identify a more accurate emission rate for EIM outstanding emissions. (CAISO1)

Comment:
LADWP is a vertically-integrated publicly-owned utility serving over four million people within the City of Los Angeles and portions of the Owens Valley. LADWP's mission is to supply reliable water and electricity to meet the city's needs in an environmentally responsible and cost effective manner. LADWP plans to join the Energy Imbalance Market (EIM) in 2020, and is currently getting ready to join the market. As such, LADWP and its customers have an interest in Greenhouse Gas (GHG) emission accounting for the EIM market. Please see our comments below.

<u>Energy Imbalance Market, Imported Electricity (MRR section 95111 (h)]</u>

While we appreciate accuracy, the proposed requirement for each EIM Participating Resource Scheduling Coordinator to "calculate, report, and cause to be verified, emissions and MWs associated with electricity imported as deemed delivered to California by the EIM optimization model" for every 5-minute interval during the year, would create a significant reporting and verification burden, not to mention risk of not completing verification by the August 10 verification deadline which would have adverse consequences. Also, since the EIM database is the sole source of the mega-watt (MW) data, the EIM data cannot be independently verified since there is no independent documentation outside of the EIM database to corroborate the data.

Rather than the data-intensive approach described in the proposed rule amendments, LADWP recommends a much simpler approach where EIM electricity imported to California is summed on an annual basis, then multiplied by the EIM system average GHG emission rate calculated by the market operator on an annual basis. Under California's Cap-and-Trade Regulation, the annual GHG emissions compliance obligation for the EIM electricity imported into California can be handled as a statewide total for the benefit of all California consumers, similar to how CARB has handled EIM GHG emissions for the past several years. This is the simplest approach. Alternatively,

if CARB wishes to allocate the GHG emission to the EIM Purchases, the emissions could be divided up based on relative volume of participation in the EIM market.

In summary, LADWP recommends the following approach to GHG emissions accounting for the EIM:

1. ARB should obtain EIM data directly from the EIM market operator, rather than requiring the EIM scheduling coordinators to report the data, given the impracticality of verifying the EIM data.

2. The electricity imported to California through the EIM should be based on final settlement data.

3. The EIM market operator should calculate the EIM system average GHG emission rate on an annual basis, taking into account emissions from secondary dispatch and excess renewable energy exported from California. In the meantime, we understand CARB is proposing to apply the default emission factor (0.428 metric tons CO23/MWh) that was calculated in 2010 based on the marginal generating resources within the western interconnected electric grid, to EIM imports. Use of the actual EIM system average GHG emission rate would be preferable to the default emission factor which is based on 10-year-old data. Alternately, CARB could update the default emission factor. (LADWP1)

Comment:

b. EIM Purchasers Should Receive an Allocation of Credit for Emissions Reductions Occurring Outside of California

If the ARB is going to apply a compliance obligation to entities in California for emissions and activity occurring across the West, it should seek ways to credit those entities for emissions reductions occurring across the West that may have a causal connection to California's participation in the EIM. Enabled in part by the EIM, PacifiCorp re-operationalized its owned generation fleet in 2016, leading to significant emissions reductions. This trend has sustained through 2018 with a reduction of approximately five million tons of carbon dioxide per year, when measured against a five year average. These emissions reductions would not have been possible without California's participation in the EIM. However, while overall PacifiCorp emissions have decreased significantly, PacifiCorp's California Cap-and-Trade compliance obligation has increased over this same time period due to increased energy exported to California via the EIM. This creates the overall impression that California's participation in the EIM has had a negative impact on overall greenhouse gas emissions when in fact the opposite is true.

Presumably, if the emissions reductions described above occurred inside California or if the entire West was under an emissions cap, entities with a compliance obligation would receive "credit" for the reductions by virtue of being responsible for fewer emissions. This is the fundamental concept of a cap: that entities under it have the ability to reduce their obligation by reducing emissions. The ARB's approach to

regulating secondary dispatch emissions ignores this fundamental. If the ARB is going to apply an obligation to California entities for emissions outside of California over which they have no control, it should also seek ways to credit entities with corresponding emissions reductions occurring outside of California that may have a causal connection to California's participation in the EIM. (PACIFICORP1)

Comment:
The Proposed Amendments would assess a compliance obligation on EIM Purchasers based on CARB's calculation of EIM Outstanding Emissions for the prior calendar year (or portion of the year, in the case of 2019). The proposal builds upon the current "bridge solution" under which CARB retires a quantity of unsold emissions allowances equal to the quantity of EIM Outstanding Emissions, with one critical change: rather than CARB retiring unsold allowances, EIM Purchasers would have the obligation to procure and surrender allowances.

Powerex generally supports the Proposed Amendments related to the EIM Purchaser concept. However, Powerex believes that this is a relatively minor improvement in terms of achieving the objective of ensuring that the California Cap-and-Trade Program is appropriately applied to EIM imports that serve California load. Most notably, these improvements will not address the dispatch, pricing and settlement challenges associated with the EIM software continuing to systematically understate the GHG emissions associated with the EIM's dispatch of out-of-state resources that result in imports serving load in California.

I. Assessment Of The Current EIM GHG Allocation Algorithm

Accurate accounting for GHG emissions in the EIM is critical to ensuring that the EIM operates in a manner consistent with CARB's Cap-and-Trade Program for wholesale electricity serving load in California. It has become increasingly clear, however, that the initial design of the EIM has failed to satisfy the need for such accurate accounting of GHG emissions. This inaccuracy has led—and continues to lead—to significant amounts of GHG leakage through the EIM dispatch of out-of-state natural gas and coal resources serving California load without appropriate recognition of their emissions. In particular, Powerex believes that the existing framework for accounting for GHG emissions within the EIM has:

1. failed to provide price signals to encourage the increased use of non-emitting resources to serve California load;

2. failed to require that the appropriate quantity of GHG emissions allowances be procured by the GHG-emitting generators actually being dispatched; and

3. created new and expanded opportunities for out-of-state natural gas and coal resources to produce and sell electricity to serve California loads.[15]

Although the EIM has generally provided environmental benefits during hours when California is a net exporter in the EIM, it has also expanded market opportunities for out-of-state fossil fuel generation to serve California loads during hours when California is a net importer in the EIM. The EIM has achieved this by reducing the two key barriers that previously made external coal and natural gas resources relatively uncompetitive to serve California loads. The first barrier is the requirement to purchase transmission service at fixed tariff rates, both to exit the balancing authority area ("BAA") where a generation resource is located, as well as to traverse other BAAs in order to reach California.

The second barrier is the requirement for the source of energy imports into California to be properly reported to CARB, and for the importer to purchase and surrender the necessary GHG emissions allowances, based on the volume of energy imported and the GHG-emissions rate of the source of the supply. Prior to the EIM, energy produced by an external fossil-fueled generator could only be imported as either unspecified-source energy, incurring a GHG cost of approximately $6/MWh based on a generic default GHG emission factor, or as specified-source energy, incurring a GHG cost based on the resource's specific GHG emission rate, which could generally range from approximately $6/MWh for natural gas resources to $15/MWh for coal resources. Together, the significant fixed tariff cost of transmission service and the significant cost of GHG compliance put out-of-state fossil-fueled resources at a substantial cost disadvantage relative to in-state California generation. The current EIM design has eliminated both of those cost barriers. Transmission service does not incur an incremental charge in the EIM, while the EIM's "deeming" approach effectively allows external natural gas and coal resources to be dispatched in the EIM and the energy to be imported to serve California load, but without incurring appropriate GHG-related costs.

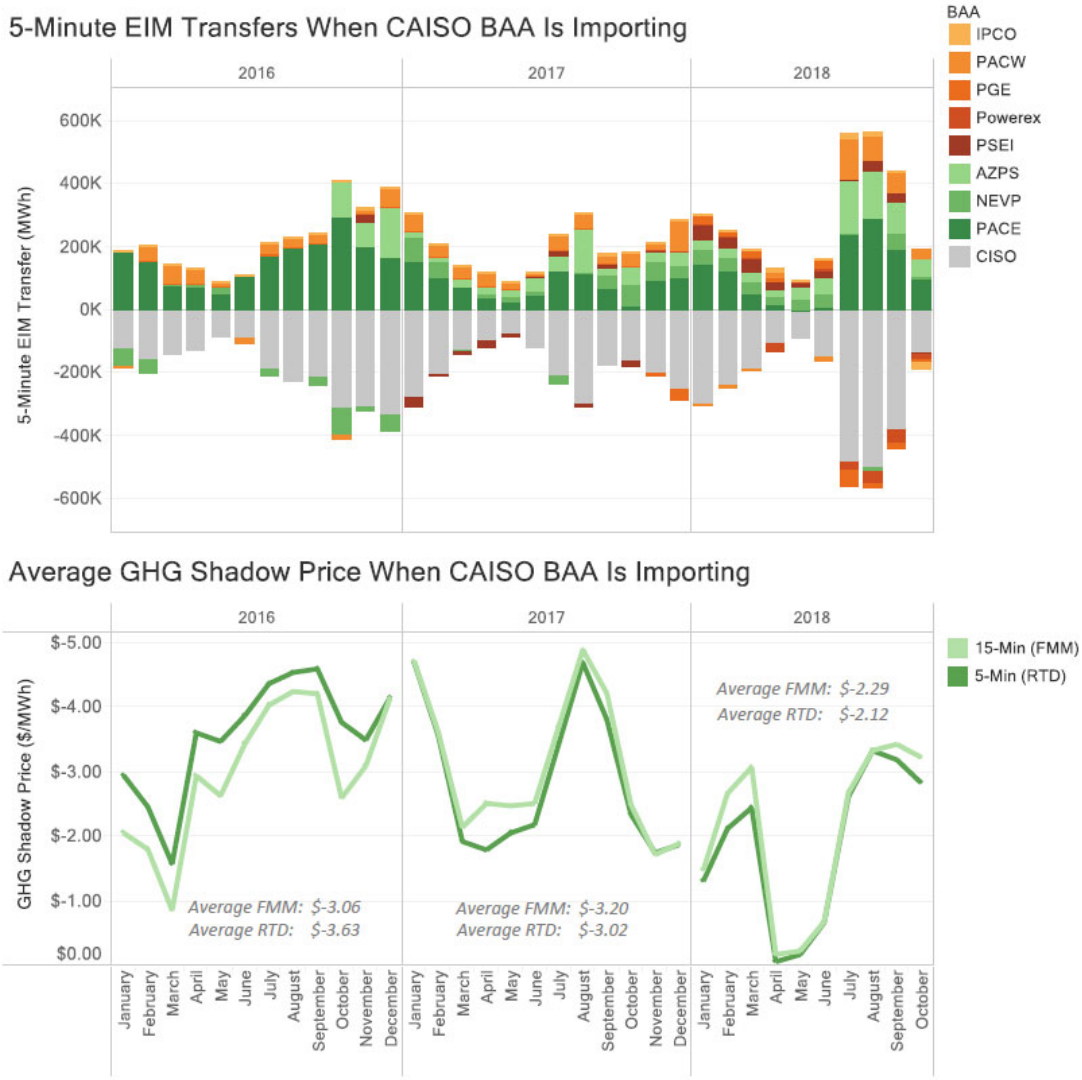
The failure of the existing EIM framework to accurately account for GHG emissions has been widely discussed. For the purpose of adding specific insights to the issue, Powerex has performed a preliminary analysis, based on public data from CAISO's 5-minute real-time market, that shows the net EIM exports from various BAAs in the EIM during each 5-minute interval that the CAISO BAA was receiving net EIM imports.[16] The initial results are presented below for each month since January 2016:

---

[15] For a more detailed discussion of the consequences of the initial EIM algorithm, please see Comments of Powerex Corp. on the Proposed Amendments to the Cap-and-Trade Regulation

(September 9, 2016), at 12-16.

[16] Powerex notes that this analysis is preliminary, and has not been independently validated by CAISO or any other party. Powerex welcomes other parties' input on this analysis.



The top panel shows that in virtually every month, the largest exporters in the EIM when the CAISO BAA was importing energy were the three largest BAAs in the Desert Southwest. Although significant quantities of renewable resources have been added in recent years in the Desert Southwest, the resource mix in the region continues to consist predominantly of natural gas and coal-fired generation. Moreover, during the hours of the day when the CAISO BAA is a large EIM importer, prices in the EIM are at levels that generally reflect incremental production from natural gas and coal-fired generation, as opposed to the lower prices that would indicate increased production (or reduced curtailment) of out-of- state wind or solar resources. That is, in the hours when California load is served from out-of-state resources through the EIM, much of the additional production is from GHG-emitting facilities. The EIM's failure to accurately attribute those imports serving load in the CAISO BAA to GHG-emitting out-of-state resources is seen in the lower panel, which tracks the average GHG shadow prices in the EIM during intervals that California load is served by EIM imports. GHG shadow prices during such intervals in the 15-minute and 5-minute markets averaged

approximately $3.06/MWh and $3.63/MWh respectively in 2016, approximately $3.20/MWh and $3.02/MWh in 2017 and fell to approximately $2.29/MWh and $2.12/MWh in 2018 (through mid-October). At typical GHG emissions allowance prices of between $13 and $15/MTCO2e, this means that, on average, the EIM has attributed GHG emissions of only 0.15-0.3 MTCO2e for each MWh of energy imported in the EIM to serve California load. This is less than half of the typical emission factor for an efficient natural gas-fired generator, and only a small fraction of the GHG emission factor for a coal-fired generator.

The depressed GHG shadow prices point to a simple conclusion: *through the EIM, California consumers have been effectively compensating out-of-state natural gas and coal-fired resources for their environmental attributes as if those resources had very low GHG emissions.*

For example, when California consumers pay, say, $36/MWh for electricity purchased in the real-time market (which includes the EIM), this price will most typically reflect the variable production cost of the marginal natural gas resource located inside California of say, $30/MWh, plus approximately $6/MWh of additional variable costs associated with GHG allowances (based on the particular marginal resource's emissions rate). In other words, California consumers in this example are paying approximately $6/MWh in additional costs for real-time energy purchases, including from EIM imports, to reflect the cost of GHG emissions. For in-state, GHG-emitting resources, including the marginal natural gas resource described above, this generally does not translate to an additional $6/MWh of economic benefit, however, as it is generally offset by the cost of procuring GHG emissions allowances (based on each resource's actual emissions rate). For example, the marginal natural gas resource described above would have carbon allowance obligations of approximately $6/MWh, resulting in net revenues of $30/MWh. But coal and natural gas resources located *outside* of California may receive net revenues of $34/MWh, since these resources receive the $36/MWh for their energy output but incur only $2/MWh, on average, to procure GHG allowances for EIM imports into the CAISO BAA in that interval. The result is that external natural gas and coal resources serving California load are not only better off than in-state natural gas resources, but are receiving net financial benefits from California consumers as a result of the Cap-and-Trade Program itself. This overcompensation of out-of-state GHG-emitting resources is to the detriment of California ratepayers, clean, non-emitting resources who are often "stepped ahead of" in the real-time market dispatch, and, perhaps most importantly, California's goals of reducing its reliance on fossil fuels and increasing the use of renewable and non-emitting resources.

Powerex's preliminary analysis also highlights a troubling trend: as the EIM has grown, the volume of EIM imports serving California load has grown while the average GHG emissions attributed to those imports has declined, despite these imports predominantly being sourced from the Desert Southwest region. For example, net EIM imports into the CAISO BAA totaled approximately 2,300 GWh in 2016 and 2,200 GWh in 2017. By the end of September of 2018, by contrast, net EIM imports into the CAISO BAA had already reached nearly 2,500 GWh, surpassing the total annual deliveries from both prior years. This growth in import volume has occurred as the average GHG emissions

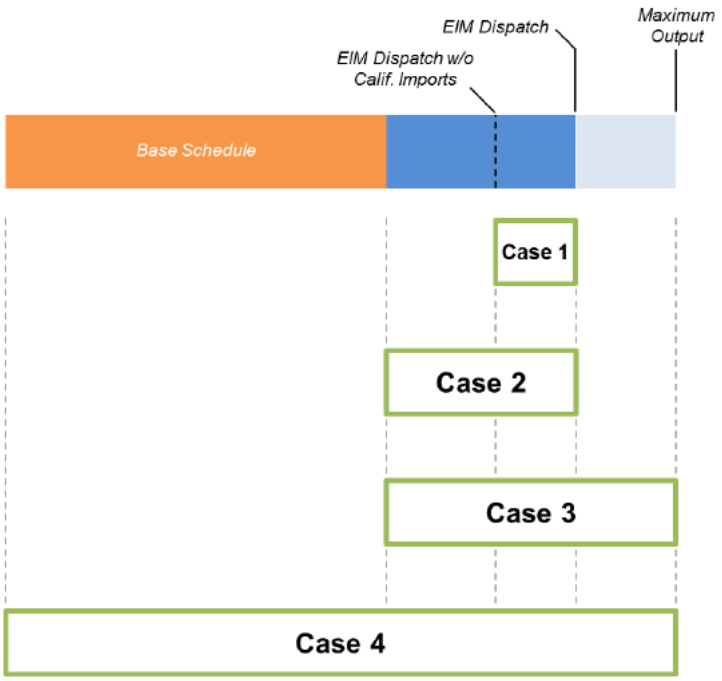
associated with each imported MWh has declined. In other words, the problem of EIM Outstanding Emissions is getting worse, and at an accelerating rate.

II. Ensuring Accurate Accounting Of GHG Emissions In The EIM

The preferred solution to the issues identified above is to improve the EIM software so that it accurately identifies and accounts for the *specific resources* that increase their production (and GHG emissions) to support EIM imports serving California load. The challenge, however, is that there is no inherent relationship in an organized market between the production of electricity by a generating resource and the location of the load consuming that electricity. In Powerex's view, this link could be effectively established by identifying the out-of-state resources that (1) are dispatched in the EIM to a quantity greater than the generation plan developed ahead of the EIM optimization ("base schedules"); but (2) where the resource would *not* have been dispatched to this level if there had been no EIM imports into California. The first criterion identifies the additional out-of-state GHG emissions resulting from the EIM generally, which includes serving load outside of California. The second criterion distinguishes the additional out-of-state GHG emissions associated with energy imports serving California load (which are subject to CARB rules) as opposed to additional out-of-state GHG emissions that would have occurred anyway (which are not).

Figure 1, below, depicts the set of EIM resources satisfying these two criteria, labeled as Case 1. That is, Case 1 shows the difference between the EIM dispatch of an out-of-state resource, and what that dispatch would have been if there were no EIM imports serving California load. This is the resource output (and GHG emissions) that, in Powerex's view, can properly be associated with serving California load. The figure also shows how the resource output that that can be "deemed" to serve California load is expanded as each of these criteria are loosened. As the operation of the EIM to date highlights, expanding the group of resources that can be "deemed" to serve California load provides the EIM algorithm more opportunities to appear to reduce costs simply by inaccurately attributing these "deemed deliveries" to the lowest-emitting resources. Therefore, as the group of resources that can be "deemed" to serve California load is expanded, the opportunity for inaccurate attribution of GHG emissions is also expanded.

Figure 1. Alternative Approaches To Limiting The Output That Can Be "Deemed Delivered" to California Loads



Green bars represent the maximum GHG attribution that an EIM Participating resource may indicate it is willing to accept. GHG attribution is also constrained to not exceed the total output of the resource.

In Figure 1, above, Case 2 permits GHG attribution to *all* out-of-state resources that increased production above the quantity included in generation base schedules prior to EIM operation. Some of these resources would have increased production anyway, even if there were not EIM imports into California (*e.g.,* to displace production from other higher-priced out-of-state resources). Case 3 permits GHG attribution to not only all the resources that *actually* increased production above base schedules, but also to all the resources that *could have* done so, since their respective base schedules did not use the full capacity of the resource. Case 4 permits GHG attribution to all EIM participating resources that are willing to be deemed delivered to California load. This is the loosest case, since it may include all output from every EIM participating resource, even if that output was scheduled outside of the EIM, even if the output did not increase as a result of EIM dispatch, and even if the output would have been exactly the same if California had not received any EIM imports.

Case 4 describes the current EIM algorithm. It adopts the broadest view of out-of-state resource output that can be "deemed" to serve California load. And because this approach casts such a wide net, the output that *can* be "deemed" to serve California load greatly exceeds the quantity of EIM imports to California. The EIM algorithm must therefore choose from among this wide array of choices, and does so by "deeming" California load to be served by the output from resources with the lowest GHG emission

factor. By selectively “deeming” California load to be served from the cleanest out-of-state production in each interval, the EIM algorithm appears to minimize the cost of complying with CARB’s rules. But it does not achieve this outcome simply by reducing actual GHG emissions—as one might logically expect given the goals of CARB’s Cap-and-Trade Program—but by attributing imported power to the lowest-emitting resources, without regard to whether those are the actual resources that were dispatched in order to enable imports into California.

The challenges that have arisen surrounding accurate accounting of GHG emissions within the EIM framework has led Powerex to conclude that the basic premise of how CARB’s GHG rules are applied to the EIM is fundamentally and fatally flawed. Simply put, Powerex believes it is not appropriate to apply specified source reporting on the basis of the EIM algorithm’s “deemed deliveries” to California. These “deemed deliveries” do not, and cannot, accurately identify the resources dispatched in the EIM to support EIM imports serving California load. Instead, in many cases, the “deemed deliveries” reflect the automated selection of the cleanest participating resources anywhere in the EIM footprint and claiming them on behalf of California. The concept of specified-source reporting is stringent, and deliberately so: it is intended to represent a specific resource that produced and delivered energy to be consumed in California. The EIM’s “deemed delivered” methodology is entirely inconsistent with this goal, as the objective function of the EIM algorithm is to minimize total costs, including through the *inaccurate deeming* of which resources served California load. The EIM algorithm simply fails to establish any link between the resource that actually produces energy to serve California load and the resource that is “deemed delivered”, making specified-source reporting entirely inappropriate.

CAISO previously considered a “two-pass proposal” that sought to implement Case 1, by explicitly simulating the EIM dispatch both with and without EIM imports into California. The technical complexity of the two-pass proposal, as well as concerns expressed by some parties regarding the potential incentives on bidding behavior, led CAISO to view this approach as unworkable in the short-term, however. Instead, CAISO has proposed an approach reflected in Case 3 above. Under this approach, EIM imports serving California load can only be attributed to resources with the *ability* to increase output in the EIM. Compared to the nearly unfettered discretion of the current EIM algorithm (or Case 4), the CAISO’s proposal is unequivocally a step in the right direction. But it will still leave very significant opportunities for the EIM algorithm to continue to selectively and inaccurately “deem” which resources serve California. Specifically, California load could still be “deemed” to be served by a clean resource that did not *actually* increase its output in the EIM at all, or by a clean resource that did increase its output, but would have done so anyway, even if there were no EIM imports into California. Just like under the existing EIM design, the EIM algorithm will inaccurately “deem” California load to be served from the available resources with the lowest GHG emission factor.

Importantly, as the EIM expands to include more non-emitting resources, such as Pacific Northwest hydro resources, the base schedules associated with those resources will increasingly *enable* the EIM to dispatch additional coal and gas resources to serve

California load *without* requiring the retirement of the appropriate quantity of carbon allowances. This is true under both Case 4 (the status quo) and under Case 3 (the approach proposed by CAISO that includes improvements to the EIM algorithm to limit deemed quantities to the quantity of upward dispatch range above a resource's base schedule). Ultimately, once there are sufficient non-emitting resources participating in the EIM, the EIM algorithm will be able to dispatch natural gas and coal resources without *any* carbon allowance obligations being incurred.

While Powerex supports implementation of CAISO's proposal as a near-term measure to reduce the potential for GHG leakage, it would be incorrect to consider the problem "fixed" by these changes. Additionally, no party should be under the erroneous impression that the enhanced EIM approach could be a suitable framework for a regional day-ahead organized market. Quite the opposite: part of what limits the harm from the current and proposed EIM approaches is the relatively modest volume of California load served by energy imports in the EIM. But the far larger volume of transactions and deliveries that occur on a day-ahead basis significantly increases the need for accurate GHG tracking, and also increases the consequences of getting it wrong. Moreover, like the EIM, the potential development of an organized day-ahead market will likely further reduce "friction" that applies to bilateral scheduling activity; but this friction currently helps limit opportunities to schedule clean energy to California in a manner that results in increased GHG emissions through "backfill" activity and "secondary emissions". The EIM has demonstrated the power of algorithms to maximize opportunities to reduce costs, even where such cost reductions are achieved by reducing the accuracy of the application of CARB's rules. A day-ahead organized market would transact far greater volumes, and would pose an even greater challenge to achieving California's environmental policy objectives, unless a more robust GHG attribution framework is applied. (PWX1)

> **Response:** Under AB 32, CARB must account for statewide GHG emissions, including all emissions resulting from the generation of electricity delivered to and consumed in California, whether that electricity is generated in-state or imported to California to serve California load. AB 32 also directs CARB to minimize emissions leakage to the extent feasible as CARB implements the Cap-and-Trade Program. The design of EIM is a known source of emissions leakage, which CARB has a mandate to address. The adopted amendments address EIM emissions leakage by ensuring it is addressed by the electricity sector. The adopted amendments to MRR and the Cap-and-Trade Program do so by placing the responsibility to ensure environmental integrity of the Program for EIM emissions leakage on electrical distribution utilities that purchase electricity from the EIM and receive freely allocated allowances.
>
> Even with the CAISO's recent changes to limit the quantity of electricity deemed to serve California load, the EIM algorithm still attributes lower emitting resources to serve California load without fully capturing the emissions resulting from the imported electricity. When the EIM model determines which out-of-state resources are deemed delivered to California in a particular interval, it will always minimize costs by attributing delivery to the cleanest participating resources that

have elected to be deemed delivered to serve California load. The cleanest resources are deemed delivered regardless of whether the emissions associated with those specific resources are the only emissions used to satisfy the EIM energy transfer to California. As CAISO's EIM Greenhouse Gas Enhancements 3rd Revised Draft Final Proposal states "the [current] proposal reduces secondary dispatches, but does not eliminate them."[17]

In order to calculate the EIM Outstanding Emissions, CARB calculates the full GHG profile as the amount of MWhs imported to California under EIM, multiplied by the default emissions factor, and adjusted for transmission losses ("Total California EIM Emissions"). To avoid assigning a double compliance obligation for EIM Purchasers, CARB subtracts out the emissions associated with the model's deemed delivered MWhs ("Deemed Delivered EIM Emissions") from Total California EIM Emissions, to establish EIM Outstanding Emissions. EIM Outstanding Emissions represent the emissions leakage that needs to be accounted for within the reporting program and that is used to calculate EIM Purchaser Emissions.

Until future modifications to the EIM algorithm allow direct identification of the complete emissions supporting EIM transfers at the time of dispatch, the default emissions factor is the best identification of the emissions rate of these marginal plants and should supplement the emissions reported directly through the current deeming algorithm. The default emissions factor is appropriate because it reflects the emissions of power plants on the margin of western electricity markets and, in doing so, it reasonably approximates the emissions effect of marginal changes in that market in response to changes in California demand.

Some commenters have requested an update to either the default emissions factor calculation or the methodology for calculating the default emissions factor. Updates to the default emissions factor were outside the scope of the MRR and Cap-and-Trade Regulation rulemakings. Nevertheless, CARB staff conducted a review of the 0.428 $MTCO_2e$/MWh default emission factor that was adopted as part of the 2010 MRR. That value was calculated based on coordination with Western Climate Initiative (WCI) partners and an analysis of the average marginal generation for power plants located in the Western Energy Coordinating Council (WECC).[18] Marginal generation includes plants that are assumed to be capable of generating additional electricity in response to a marginal increase in electricity demand. In the WCI analysis, the calculation of emissions from marginal generation included all fossil fuel-fired power plants in the WECC with a capacity factor of less than 60 percent that do not include a combined heat and power (CHP) component. Renewable and hydroelectric resources, as well as

---

[17] *See* http://www.caiso.com/Documents/ThirdRevisedDraftFinalProposal-EnergyImbalanceMarketGreenhouseGasEnhancements.pdf.

[18] http://www.westernclimateinitiative.org/document-archives/Electricity-Team-Documents/Default-Emission-Factor-Calculators/Default-Emissions-Calculator---Announcement-and-Description/

fossil fuel-fired plants with a capacity factor greater than 60 percent, were excluded and considered either to serve baseload or to not be available for export to California. The resulting unspecified source emission factor is similar to the emission factor from an average single-cycle natural gas power plant. Though that value was adopted as part of rulemaking activities in 2010, CARB believes that the emission factor is still an appropriate approximation of the emissions rate associated with power plants on the margin of western electricity markets. While increases in renewables and decreases in coal-fired electricity generation have meant that the emissions intensity of generation in the WECC has decreased since the original analysis was performed, marginal generation resources are still broadly similar. CARB recently reviewed the WCI's original methodology and current data from plants in the WECC, and CARB believes that a full analysis of the current marginal generation rate (unspecified emissions factor) would result in a marginal rate similar to the one currently in place due to the methodology used to calculate that factor. In response to one commenter's concerns about coal power being reported as unspecified power, CARB notes that, pursuant to MRR, when first deliverers import coal-fired electricity under long-term contracts, they must report the electricity as specified power at the resource-specific rate.

In response to comments on accounting for the export benefits of EIM by crediting exported electricity emissions against imported electricity emissions, such netting is not allowed under MRR or the Cap-and-Trade Regulations. This ensures that California is fully accounting for emissions from electricity, whether generated in-State or imported, to serve California load. CARB's regulations also do not allow crediting exports against electricity imported under EIM. CARB's regulations do not support this type of accounting as it would not fully account for emissions from electricity generated in-State, which is required by AB 32. There is no crediting for any goods or energy produced in-State and exported for final use out-of-state.

In response to commenters' concerns that the use of 5-minute EIM data to calculate EIM Purchaser Emissions would be overly complex and could have unintended impacts on CAISO market behavior, staff made 15-day changes to the Regulation that instead require that EIM Purchaser Emissions be calculated using annual retail sales information, most of which is already reported pursuant to MRR. The adopted amendments ensure a simpler and easier to implement approach to assigning EIM Purchaser Emissions. Some commenters suggested CARB use annual EIM data to calculate EIM Purchaser Emissions and also requested higher accuracy in calculating EIM Purchaser Emissions. The recommendation to use annual EIM data (as opposed to annual retail sales as in the adopted amendments) presents potential unintended impacts on market behavior similar to the use of 5-minute EIM data as the use of annual data could also unintentionally incentivize EIM Purchasers to alter their behavior in CAISO's markets. As such, CARB declines to make this change. Using annual retail sales information avoids potential market impacts as retail sales information does

not impact electricity market behavior and ensures the responsibility is shared equitably by EIM Purchasers based on size.

B-4. Multiple Comments: EIM Purchaser Requirements and MJRP and ACS Entities

Comment:

II. MJRP Comments

PacifiCorp is a multi-state utility that provides retail electric service to approximately 1.8 million retail customers located in California, Idaho, Oregon, Utah, Washington and Wyoming. In California, PacifiCorp serves approximately 48,000 customers in Del Norte, Modoc, Shasta and Siskiyou counties. PacifiCorp is not a part of the CAISO balancing authority area. Rather, PacifiCorp operates two balancing authority areas (PacifiCorp West (PACW) and PacifiCorp East (PACE)) that span its six-state service territory, including California. As an MJRP under MRR, PacifiCorp's compliance obligation is calculated by developing a system emission factor for PacifiCorp's entire system including imports and exports. The system emission factor is multiplied by PacifiCorp's load to determine its compliance obligation. Given this unique situation, the ARB's proposal with respect to EIM Purchasers creates two issues, described below.

a. *Secondary Emissions Associated with PacifiCorp's California Load Service Are Already Accounted For in the System Emission Factor*

EIM transfers used to serve PacifiCorp load in California are imported to PACW or PACE from adjacent EIM Entity balancing authority areas. The CAISO does not create a resource specific- attribution for energy delivered to PacifiCorp balancing authority areas via the EIM. For purposes of developing PacifiCorp's Cap-and-Trade compliance obligation, EIM transfers to PACW and PACE are considered unspecified purchases. Accordingly, a compliance obligation is assessed for these transfers based on California's default emissions factor. Due to this approach, concerns regarding secondary dispatch emissions are not the same for EIM transfers to PACE or PACW as those related to EIM transfers to the CAISO balancing authority area. Through the application of the default emissions factor, PacifiCorp's California customers are already fully accountable for any secondary EIM dispatch emissions that may occur outside of PACW and PACE. Due to this, PacifiCorp should not have a compliance obligation, nor lose any allocated allowances, to account for secondary EIM dispatch emissions for EIM transfers to the CAISO balancing authority area. Treating PacifiCorp as an EIM Purchaser would unfairly penalize its California customers by making them pay twice for the same emissions.

b. *The Default Emissions Factor Should Apply to EIM Energy Transfers From PacifiCorp's System to the CAISO Balancing Authority Area When Calculating PacifiCorp's System Emission Factor*

Specified sales, including energy transferred to the CAISO balancing authority from PacifiCorp's system via the EIM, are subtracted from PacifiCorp's system emission factor when determining PacifiCorp's Cap-and-Trade compliance obligation. This means

that specified sales to California via the EIM that are zero-emitting have the effect of increasing the compliance obligation associated with PacifiCorp’s California load. This increase translates to increased costs for PacifiCorp customers. Under the ARB’s current proposal, the default emissions factor will be applied to these energy transfers. PacifiCorp requests that these specified sales be reflected in PacifiCorp’s system emission factor calculation consistent with this treatment. (PACCORP1)

Comment:
BPA's comments are largely limited in scope to the proposed amendments pertaining to the accounting for greenhouse gas (GHG) emissions associated with electricity imported through the Western Energy Imbalance Market (EIM) operated by the California Independent System Operator (CAISO).

BPA is a federal power marketing administration that markets wholesale power from the Federal Columbia River Power System, which consists of 31 federal hydroelectric projects, one nuclear plant, and some other small nonfederal power plants. BP A also owns and operates about three-fourths of the Pacific Northwest's high-voltage transmission system and has interregional transmission lines connecting to California. BPA is statutorily-required to serve over 130 preference customers and transacts in the wholesale power market and CAISO markets. BPA is registered with CARB as an Asset Controlling Supplier (ACS) and BPA supplies power to Surprise Valley Electrification Corp., a BPA preference customer with load in California, BPA is currently reviewing participation in the Western EIM, and many of BPA's preference customers reside within the EIM footprint.

The recently-proposed amendments to California's MRR and Cap and Trade Regulation propose new reporting and compliance obligations on EIM purchasers in order to better account for the carbon content of EIM imports into California. BPA continues to be supportive of accurate and equitable GHG accounting. However, without further clarification from CARB, these recently-proposed amendments will result in inaccuracies for an ACS entity such as BPA because the emissions attributable to EIM imports into the ACS system will be first accounted for in the ACS emissions factor and then again accounted for by the EIM purchaser.

As an ACS entity, any emissions attributable to secondary dispatch imports into BPA's system are already accounted for in BPA's ACS assigned emissions factor. Specifically as it relates to the EIM, BPA's understanding is that if BPA opts to participate in the EIM then EIM imports to BPA's system will be assigned CARB's default unspecified emissions factor and be accounted for in BPA's ACS system emissions factor. Given that BPA sells surplus power from its system as a whole, BPA expects it will need to assign its ACS system emissions factor to sales in the EIM even if those sales are traceable to a particular generator. This creates a problem where emissions attributable to EIM dispatch would be accounted for twice: (1)by BPA in the ACS emissions factor, and (2) by the EIM purchaser through CARB's proposed application of the default unspecified emissions factor to the EIM import into California.

BPA encourages CARB to continue to work with the CAISO on a long-term solution to accurately account for the emissions associated with EIM imports to California. In the meantime, BPA urges CARB to make further clarifications to the proposed amendments to ensure they do not result in double-counting of emissions attributable to secondary dispatch in the EIM for an ACS. (BPA)

Response: The commenters argue that the adopted amendments with regard to EIM Purchasers raise issues specific to their business practices. We address each comment in turn. CARB understands that PacifiCorp serves load in multiple states, including a region of northern California. Because only a portion of the load served by PacifiCorp is located in California, PacifiCorp is responsible for accurately accounting for, and meeting the compliance obligation associated with, the emissions that serve its California load. PacifiCorp does not face a Cap-and-Trade Program compliance obligation for any emissions serving its non-California load.

Because, based on CARB's knowledge to date, PacifiCorp does not know the resources serving its California-based load at the time of dispatch, CARB would likely view PacifiCorp's reporting of its California load served by EIM imports at the default emissions rate, pursuant to MRR, as appropriate for accurate emissions accounting. This type of reporting of unspecified imports is consistent with all other electricity imported to California where the source of the electricity is unknown. PacifiCorp contends that the reporting of the EIM electricity to serve its California load at the default emissions rate should fulfill any obligation it may have to account for EIM emissions leakage.

CARB disagrees. The adopted amendments ensure that CARB is accounting for California's GHG emissions and minimizing emissions leakage, as required by AB 32. The amendments also ensure the environmental integrity of the Cap-and-Trade Program for EIM emissions leakage by placing the responsibility for addressing the leakage on entities in the electricity sector. Similar to other EDUs, PacifiCorp is benefitting from the EIM and receiving allocated allowances to address the cost burden of complying with the Cap-and-Trade Program for its California load. Therefore, PacifiCorp must share in the responsibility of ensuring the environmental integrity of the Cap-and-Trade Program for EIM Outstanding Emissions through a direct retirement of a portion of its allocated allowances. CARB does not see a nexus between the reporting of the mix of resources available to PacifiCorp to serve its California load, as required under MRR, and EIM Outstanding Emissions, which accounts for emissions leakage in EIM.

CARB encourages PacifiCorp to work with CAISO to refine the EIM definition of California load. This could help ensure PacifiCorp's California load more accurately reflects the resource mix used to serve that load at the time of dispatch. If all MRR requirements for specified electricity are met, this would allow PacifiCorp to report its imports to serve its California load at resource specific rates, but it would not alleviate PacifiCorp from the direct retirement of allocated allowances for purposes of addressing EIM emissions leakage. CARB

will monitor this issue, including any changes at the CAISO, and propose future regulatory amendments as appropriate.

CARB understands that the Bonneville Power Administration (BPA), as a wholesale power marketer, is not an EDU and does not receive allowance allocation. The definition of EIM Purchaser in the adopted amendments is limited to EDUs receiving allowance allocation. Nonetheless, CARB does not see a nexus between the reporting of the mix of resources available to BPA to serve its California customers, as required under MRR, and EIM Outstanding Emissions, which accounts for emissions leakage in EIM.

B-5. Comment: Future Changes Addressing Emissions Leakage in EIM

II. CARB's Proposal Represents A Reasonable Near-Term Solution, But Broader Changes Are Needed

Absent a solution that comprehensively addresses the root of the problem, CARB has implemented a "bridge solution". The existing "bridge solution" enacted by CARB in its 2016 MRR amendments represents an attempt to quantify the extent to which the EIM understates out-of-state GHG emissions associated with serving California load, but it does not allocate the cost of that shortfall to any party. The Proposed Amendments take the next logical step, and assess a compliance obligation—and hence a cost—for EIM Outstanding Emissions to the California loads that are served by EIM imports whose GHG emissions are understated. Powerex believes the Proposed Amendments represent an improvement over the *status quo*, and supports their adoption.

Powerex is mindful that the Proposed Amendments seek only to address the narrow issue of assigning GHG allowance obligations associated with the systemic understatement of GHG emissions in the EIM. However, the Proposed Amendments do not represent a comprehensive solution to the EIM challenges that continue to be experienced, nor do they address any challenges associated with import activity conducted outside of the EIM. Powerex believes it is important for CARB to recognize that the issues experienced in the EIM are only one example of the various challenges that exist under the current approach to applying CARB's Cap-and-Trade Program and Mandatory Reporting Regulation to electricity imports.

Among other things, concerns have been raised that certain external entities with non-emitting generation that has historically been used to serve domestic load obligations are now making that supply available to be scheduled to California as specified-source clean power, while having this supply concurrently "backfilled" with purchases from GHG-emitting and/or unspecified sources to meet their own needs. These concerns have been focused on the potential that such specified sale and backfill activity has the net effect of increasing the energy production from GHG-emitting and/or unspecified sources, and without reporting, and being accountable for, the associated GHG emissions to CARB. At the same time, suppliers that deliberately take steps to ensure that *their* own activity aligns with CARB's policy objectives – by either limiting their specified-source deliveries to California to supply that is surplus to their domestic load requirements or by registering as an Asset Controlling Supplier and reporting, and being

accountable for, their import activity to CARB – are put at a competitive disadvantage. Importantly, Powerex believes that this specified sale and backfilling activity can only be expected to grow as the price of GHG emissions allowances increases, thereby increasing the financial gains associated with this activity.

The above would already constitute a significant challenge to CARB's programs and policies, but the need for a careful reassessment of the reporting and compliance framework for all electricity imports has been made even greater by the recent passage of SB 100. That legislation requires that its objective be pursued in a manner that "shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling."[19]

Powerex believes that continued strong leadership from CARB is necessary to ensure the effectiveness of CARB's Cap-and-Trade Program in light of the continued evolution and expansion of organized markets. In fact, Powerex believes that it is highly likely that these problems will only get worse as the CAISO markets expand and the price of GHG emissions allowances increases, thereby increasing the opportunities and incentives for both "inaccurate deeming" in the EIM and "specified sale and backfill" activities outside the EIM. Therefore, when CARB conducts its rulemaking to implement SB100, Powerex urges CARB to consider undertaking a comprehensive review of its rules and requirements related to all electricity imports into California. Given the significant inaccuracy that is occurring in identifying the source of deliveries to California, it is not clear to Powerex that the current "specified source" reporting construct is sustainable, either in the EIM or more broadly outside the EIM. Powerex suggests that California's environmental policy goals may be better served by a framework in which the *default presumption* is that all imports are considered "unspecified," with this presumption avoided only when *entities or jurisdictions* adopt robust, comprehensive GHG reporting measures comparable to those that apply to resources in California. (PWX1)

> **Response:** Thank you for the support. Addressing changes to the way the EIM algorithm works is outside the scope of both CARB's authority and this rulemaking. However, CARB is optimistic that CAISO's recent change to restrict the volume of deemed delivered electricity in EIM to only that above the base schedule will reduce the magnitude of EIM Outstanding Emissions. CARB will continue to study, assess, and report on EIM emission leakage and work with CAISO and stakeholders to develop possible solutions to EIM emissions leakage in CAISO's algorithm.
>
> (This comment was received in duplicate.)

[19] Sen. Bill 100 § 5, 2017-2018 Reg. Sess. (Cal. 2018)

C. CAP-AND-TRADE REGULATION, MULTIPLE COMMENTS

Comment:
Staff proposed specific language in the Proposed Amendments that restricts natural gas utilities from using allocated allowance proceeds for activities other than as described. As currently drafted, the amendments contain more allowable uses for the electric distribution utilities (EDUs) than natural gas utilities. Staff lists as an allowable activity "Renewable Energy or Integration of Renewable Energy" under the section for EDUs. This is a broad category that encompasses construction and procurement of energy from renewable electricity projects but there is no comparable category for natural gas suppliers with respect to renewable natural gas projects, which also reduce GHGs (see benefits noted in Section 2). Similarly, the EDU allowable uses also include infrastructure or other support for "active transportation, zero-emission vehicles, or public transportation" but there is no allowable use for near-zero emission vehicles. In the interest of equitable treatment and to ensure that important GHG reduction activities are not excluded, SoCalGas urges Staff to address this discrepancy.

To assist with remedying these concerns, SoCalGas makes the following suggested edits to the regulation text (edited sections are in red):

1) Revised Section §95893(d)(3)

(3) ~~Auction proceeds and a~~Allowance value, including any allocated allowance auction proceeds, obtained by a natural gas supplier must ~~shall~~ be used ~~exclusively~~ for the prim ry benefit of retail natural gas ratepayers of each natural gas supplier, consistent with the goals of AB 32, and may not be used for the benefit of entities or persons other than such ratepayers.Allocated allowance auction proceeds ~~may~~must be used to reduce greenhouse gas emissions or returned to ratepayers using one or more of the approaches described in sections 95893(d)(3)(A)~~(C)~~(D) and may also be used to pay for administrative and outreach costs described in section 95893(d)(4). ~~Any allocated allow nce auction proceeds returned to ratepayers must be done in a non-volumetric manner.~~

(A) Biomethane Projects or Integration of Biomethane Projects. Funding programs or activities in the following categories:

1. *Construction of projects to develop biomethane (as defined in section 95802) that will directly interconnect with a common carrier pipeline in California, or procurement of biomethane by a natural gas supplier;*
2. *Support for biomethane projects that are ratepayer-owned or located within the natural gas supplier's service territory; or*
3. *Infrastructure projects or other projects supporting near-zero emission vehicles.*

~~(A)~~(B) Energy Efficiency. Funding programs or activities designed to reduce greenhouse gas emissions through reductions in energy use in the following categories:

1. Energy efficient equipment rebates;
2. Energy-efficient building retrofits;

3. Other projects that reduce energy demand;

~~(B)~~(C) Other GHG Emission Reduction Activities. Funding programs or activities other than energy efficiency, for which the natural gas supplier can demonstrate GHG emission reductions per section 95893(d)(5). This includes funding projects or activities that reduce emissions of uncombusted natural gas and that are not mandated by any federal, state, or local health and safety requirements, legal settlement, enforcement action, Senate Bill 1371 (Morrell, 2014), or the Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities (California Code of Regulations, sections 95665-95677).

~~(C)~~(D) Non-Volumetric Return to Ratepayers. Distribution of allocated allowance auction proceeds to some or all ratepayers in a non-volumetric manner, either on- or off-bill.

2) Revised section § 95893(d)(4).

(4) Administrative and Outreach Costs. Allocated allowance auction proceeds may be used for administrative costs only in so far as those costs are solely limited to necessary costs for the implementation of sections 95893(d)(3)(A)-~~(C)~~(D). Allocated allowance auction proceeds may be used for outreach that supports the implementation of the approaches described in sections 95893(d)(3)(A)-~~(C)~~(D).

3) Revised section § 95893(d)(5).

(5) Natural gas suppliers must demonstrate GHG emissions reductions, pursuant to section 95893(e)(4)(B), as applicable, for each use of allocated allowance auction proceeds described in sections 95893(d)(3)(A)-~~(B)~~(C) that is undertaken.

RNG is an immediately available resource, representing a significant and unique opportunity to capture short-lived climate pollutants (SLCPs) while at the same time displacing more carbon- intensive fuels at the end-use. Investing in RNG does not come at the expense of other approaches to GHG reduction and is found be as cost-effective or better than many alternative methods of reducing GHGs.[20] Including additional activities that reduce GHG emissions such as bringing RNG into the natural gas system and supporting near-zero emission vehicles in the transportation sector would help meet the goals of AB 32. Therefore, SoCalGas supports equitable

[20] https://www.socalgas.com/1443741887279/SoCalGas_Renewable_Gas_Final-Report.pdf

treatment in the allowable uses of allowance proceeds and requests that Staff consider the suggested regulation language revisions above. (SOCALGAS1)

Comment:
SoCalGas appreciates that staff included language in the Initial Statement of Reasons (ISOR)[21] acknowledging the need to revisit natural gas allocation if a renewable gas mandate or other changes to the sector occur. The natural gas sector in California is already making significant and material steps towards decarbonization, which require substantial investment.

Most notably, Senate Bill (SB) 1440[22] was passed by the Legislature and signed by the Governor on September 23, 2018. This law requires the California Public Utilities Commission (CPUC), in consultation with the ARB, to consider adopting specific biomethane procurement targets or goals for California's investor-owned utilities (IOUs). SoCalGas was an early supporter of SB 1440 and in favor of the CPUC setting up a program to foster cost-effective procurement of RNG in California.

Staff highlighted in the ISOR that the electric utility sector allocation recognizes the additional cost burden from decarbonization policies while the natural gas sector does not receive a similar allocation adjustment.

As the natural gas sector continues efforts to decarbonize, RNG will play a more important role in achieving the State's climate goals by providing a lower-emission, beneficial use for SLCPs that are currently being released directly into the atmosphere as methane or flared. There are many environmental and economic benefits to employing a decarbonization strategy that includes RNG, for example:

- Enables near-term GHG reduction of medium and heavy-duty transportation while also improving air quality and supporting successful implementation of the Low Carbon Fuel Standard;
- Provides cleaner fuel for ongoing thermal electric generation which supports integration of renewable resources;
- Offers cleaner fuel for customer end-uses, especially in difficult to electrify industrial applications; and
- Plays a critical role in furthering reliable deployment of renewable electricity by utilizing the natural gas pipeline as renewable storage, benefiting from its ability to firm intermittent power, provide storage capacity and scalability compared to other storage options.

---

[21] ARB. Staff Report: Initial Statement of Reasons. Sept. 4 2018, page 67: https://www.arb.ca.gov/regact/2018/capandtrade18/ct18isor.pdf

[22] 440 (Hueso). Energy: biomethane: biomethane procurement program: https://www.socalgas.com/regulatory/tariffs/tm2/pdf/GO-BCUS.pdf

SoCalGas looks forward to working with staff and the ARB Board to recognize the costs of these decarbonization efforts through adjustment to the natural gas sector allocation in future Cap-and-Trade rulemakings. (SOCALGAS1)

Comment:
SoCalGas appreciates the difficulty of determining an appropriate ceiling price while balancing the various and sometimes divergent objectives of setting this policy. We continue to urge ARB to use the criteria laid out in the AB 398 legislation to guide them, as required by law and not be distracted by other considerations, such as internal corporate carbon pricing and other concepts.

In the ISOR, Staff proposes a price ceiling that begins at $65 in year 2021 and escalates at a rate of 5% plus the rate of inflation until reaching an estimated $119.50 in 2030.[23] A price ceiling that reaches well beyond $100 in the later years, when the ceiling is more likely to be hit, is very concerning to SoCalGas. Some independent experts have found that in cap-and-trade markets with a finite compliance period and with hard floor and ceiling prices, the equilibrium price will most likely be at the floor or ceiling.[24] This phenomenon should be carefully considered when evaluating potential ceiling prices.

While SoCalGas is hopeful that compliance entities will be able to find cost-effective abatement opportunities below the price ceiling, it is not a forgone conclusion that they will. Therefore, it is critical for the protection of California consumers and to adhere to the legislative direction of AB 398 to set the price ceiling at a point that will "avoid adverse impacts on resident households, businesses, and the state's economy" and "the potential for environmental and economic leakage."[25] We are not aware of analysis conducted or commissioned by ARB that demonstrates a $120 allowance price will avert these potentially damaging outcomes.

Furthermore, SoCalGas feels that it is important to use a relevant and defensible price ceiling to protect from threatening the long-term viability and support for the Cap-and-Trade Program within the Western Climate Initiative (WCI) and other jurisdictions with which it might link in the future.

We recommend the elimination of the 5% escalator in the price ceiling calculation or the utilization of a real price adder to the floor price at a value of $60 or below. The price adder recommendation would constitute a price ceiling very similar to today's current regulation of the single price tier, set to begin in 2021. (SOCALGAS1)

---

[23] The 2030 value assumes a 2% inflation rate and is in nominal prices

[24] "Expecting the Unexpected: Emissions Uncertainty and Environmental Market Design", Severin Borenstein, James Bushnell, Frank A. Wolak, and Matthew Zaragoza-Watkins, Energy Institute at Haas Working Paper 274, August 2016.

[25] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB398

Comment:
As acknowledged in Staff's summary of stakeholder input, many take the position that the Reserve Tiers would be more effective if spaced evenly between the floor price and ceiling price, rather than being clustered together near the ceiling. SoCalGas also holds this position. If the Reserve Tiers are placed too close together or too close to the ceiling price we fear they would be ineffective and fail to act as a brake on short-term price spikes as intended by the authors of AB 398.

The Reserve Tier proposed in the ISOR set at 50% and 75% between the floor and proposed ceiling price were 1) skewed too high due to the overly aggressive price ceiling escalator, and 2) set too closely together, jeopardizing their effectiveness. SoCalGas maintains that the Reserve Tiers be spaced equally between the floor and ceiling at one-thirds and two-thirds, respectively.

In addition to the prices selected for the Reserve Tiers, ARB must allocate allowances to each tier. SoCalGas believes that for the Reserve Tiers to be effective they must have sufficient volume. We support ARB's proposed allocation structure and urge Staff to consider any alternatives that would bolster the Reserve Tiers in order to reduce the chances of ever hitting the price ceiling. Maintaining robust Reserve Tiers will both mitigate harmful impacts on the economy as required by AB 398 and reduce the possibility of triggering the provision for ARB to assume the backstop position of maintaining environmental integrity of the program. (SOCALGAS1)

Comment:
SoCalGas supports using precise statutory language in the amended regulation for defining Direct Environmental Benefits (DEBs). All projects located in California should automatically meet DEBs standards and out-of-state offset projects can meet the standards by demonstrating they provide environmental benefit to California. Limitations beyond the letter of the law could stifle the offset market when it already faces additional post-2020 restrictions to California-based offsets and the reduced offset usage limits. Additionally, on this topic, we urge ARB to move quickly in forming the new Compliance Offsets Compliance Protocol Task Force so that more offset protocols that benefit California can be developed and made available to compliance entities. (SOCALGAS1)

Comment:
The University of California thanks the Air Resources Board's staff for their efforts in revising the regulations. As currently drafted, the proposed amendments to the Cap and Trade regulations address the University's request to adjust the baseline emissions for the Berkeley campus to the 2018 year to take into account the emissions from the recent ownership transfer of the combined heat and power (CHP) facility. Nevertheless, the amendments do not address the increased emissions from August 2017 through to December 2019 - the period between operations transfer and the effective date of the updated regulations.

To address this gap, the University suggests inserting transition assistance allocation true-up language similar to that which was previously in the regulations. In the 2013 version of regulations, section 95891(e) provided methodologies for calculating the

true-up quantities for emission years 2013 and 2014. Much of the same language could be used to allocate allowances to the Berkeley campus to account for its assumption of ownership starting mid- 2017 of the CHP. At current allowance prices, the University estimates that without the true- up the cost for the complying with the increased emissions would be about $2.5 million for the period at hand. This cost will be in-part borne by students and will inhibit investments for further greenhouse gas reduction.

The University looks forward to working with CARB on these issues as updates to the regulations are compiled and approved. (UC)

Comment:
BPA would like to express support for CARB's proposed amendment to §95892(b)(2) of the Cap and Trade Regulation. This amendment would allow for the direct placement of allocated allowances in the compliance accounts of electric power entities such as federal power marketing administrations. As mentioned above, BP A has a long-term power sales contract to supply power to Surprise Valley Electrification Corp., a preference customer which BPA is statutorily-required to serve. BP A believes this amendment would improve the current process of transferring allowances between BPA and Surprise Valley Electrification Corp. by reducing the administrative workload for compliance reporting and the potential for errors. BPA does request, however, that CARB correct the language of the amendment to reflect the correct title of BPA and WAPA, which are power marketing administrations. Specifically, in § 95892(b)(2),the words "federal power authority" should be changed to "federal power marketing administration." (BPA1)

Comment:
I am here before you today to speak in support of the Cap-and-Trade Program overall. Long Beach has been supportive of this program since AB 32 was introduced back in 2006.

I'm also in support of the waste-to-energy facility, which would be negatively affected by staff's proposed changes to the cap-and-trade compliance mechanisms before you today. The city has a long history of supporting the Cap-and-Trade Program, as I had mentioned. And I'd also like to share a little bit about why we also choose to use waste to energy.

So back in 1988, our community decided that waste to energy is a cleaner and more sustainable way to manage municipal solid waste as compared to landfills. Those are the two options that we had back then, and they remain the two options that we have today for municipal solid waste. We are proud we take 100 percent of our non-recyclable trash to -- collected curbside to this facility, which has had a significantly smaller footprint than even the smallest landfill. The facility also reduces waste volume by over 90 percent while also supporting metals recycling and narcotics disposal for state, federal, and local law enforcement agencies across Central and Southern California.

We are proud that over the years the city and our private operator have taken the initiative to proactively improve the facility's emissions technologies by installing a carbon injection system, and ammonia injection system, and we continue to use the best available technologies and practices available.

These improvements have allowed us to ensure emissions from the facility consistently fall well below the -- our air permit requirements, and in most cases by 80 to 90 percent. We are proud that we chose to locate this facility in the Port of Long Beach near many other industrial uses and away from homes. To summarize, our community values waste to energy.

In an effort to buy time for city staff to identify an economically viable option for keeping the facility, our city council just two months ago voted unanimously to allocate 8.7 million to -- in local resources to support facility equipment maintenance and allow for opportunities to process higher value waste. We are also pleased our contracted operator is putting an additional five million towards these improvements. As mentioned, city staff are currently trying to identify an economically viable path forward for the facility.

From a facility management perspective, we are at a cross road. Our power purchase agreement, which we have relied on to support many of the facility's expenses, expires at the end of the year, while the bonds we issued to pay for the facility while also be diffused at the end of the year.

But with that said, the facility does need additional maintenance to ensure that we can continue operating well below air permits as we intend to, but for which significant resources will be needed beyond what was already approved two months ago for long-term improvements. So the question is, is there a way we can make meaningful improvements to the facility to keep it operational long term? If not, then that means that California's seventh largest city will go back to landfilling just like every other city in California has been doing with their waste. And so with that, we're asking simply for parity for waste to energy in landfills. (LONGBEACH1)

Comment:
First of all, I'd just like to say, you know, we appreciate the staff's effort in the development of this package. And we are in general support of this package. We see it as a good thing. It is -- we feel it's met the requirements under 398 in order to focus on cost containment, and we believe that it's leading in the right direction.

That said, our main issue is the third compliance period. This -- we are in the middle of this now. Whereas 398 and all the issues associated with that are post-2020, we are now feeling the effects of the third compliance period as a medium leak -- leakage risk industry. It is interfering with our ability to be able to contract and to forecast going out. It creates uncertainty going forward, so we are in full sort of the Board's -- or the staff's position that we should level out the third compliance period and provide for a smooth transition going into 2020.

In terms of what we think is going to happen on that is that if you do that, we think it will -- one, it will immediately lessen the risk of leakage because that is always a factor for us no matter what, because of the other business factors that impact our ability to be able to maintain our competitiveness. We also think it will contribute to the overall stability of the program going forward.

We need to have some sense that this is a stable program, and 2020 is going to put a lot of burdens on us, and it's going to be much difficult -- more difficult to meet. And so we want to see, you know, that we're able to prepare in this early issue.

Finally, it will eliminate, like I said, the uncertainty associate with this and provide for more forecasting. (CLFP)

Comment:
We just wanted to talk today, try not to be repetitious because there are a lot of speakers today, is that we really would like to focus on the third compliance period today, and that that smooth transition is really a big deal for us. We have a lot of other headwinds facing us right now, including the steel tariff. And so your consideration would be much appreciated and we fully support staff comments today. (PACCOASTPRODUCERS)

Comment:
I won't echo what John stated, other than we do support John's comments.

We all work together. There are a few of us here, but there are many more behind us who could not attend, and I wanted to make that point. As a producer, I'm here to tell you that I'm in the trenches, so to speak.

I know how the calculations work. I know the impact. I know the burdens.

And for the most part, I want to tell you that I do appreciate staff's assistance all the way in the past few years in addressing the cap-and-trade reporting and the program. Specifically, I wanted to congratulate the staff on the fact that on November 1st, you had 100 percent compliance with the surrender, which is quite an achievement. As a regulated entity, I can tell you that there's a great deal of anxiety until after that November 1st date passed, as you're watching it.

But having -- you know, we all have a sense of humor about it, so -- but I am here before you because our main concern is with CP3, the third compliance period.

As our marketing team and our company attempts to get a handle on the cost as we go forward, this third compliance period is critical to us. And it's for the transition in the post-2020. We support the regulation being adopted here today.

We support that provision of 100 percent leakage assistance.

And we want to remind the Board that 100 percent leakage assistance is in no way an abrogation of the responsibility that we have, or that the regulation puts upon us for

reductions. You know, our goal is always to achieve our better from our benchmark from the competitiveness aspect of it. As we look at the benchmark, that's what we strive to exceed, so that we can do better as we go forward. And then from the cap adjustment factor, we realize that there are adjustments being made and we constantly have to improve our process.

And to that end, we support the incentive programs that the Air Resources Board has been instrumental in putting forward with these cap-and-trade funds, through the Energy Commission, through agricultural assistance, through the California Department of Food and Ag with the FARMER program, the SWEEP program.

These incentive programs we're very much in favor of. I'll conclude with that.

We made the trip up here, specifically because this means a lot to us. (BOSWELL)

Comment:
I am here on behalf of E2's 600 California members to show business support for staff's proposed amendments to California's Cap-and-Trade Program.

Staff's proposal would advance a program that ensures environmental integrity and strong ambition while providing important provisions to contain program costs. E2 is a strong proponent of California’s Climate and Clean Energy Program. And last year, we advocated in support of the AB 398, which extended California’s Cap-and-Trade Program beyond 2020.

Our support for AB 398 was predicated on the Cap-and-Trade Program's strong track record of success reducing emissions and advancing California's clean energy economy.

It is truly good for the environment and the economy.

Since the program's implementation, $2.2 billion in cap-and-trade funds have been invested in nearly 30,000 projects across the state directly supporting almost 20,000 jobs.

And 68 percent of these funds benefit California's disadvantaged communities.

In every corner of the State, California's climate program and its bedrock policy, Cap-and-Trade, is working.

The State is exceeding its greenhouse gas targets, program compliance is strong, and the state's economy is booming. Furthermore, cap and trade is the embodiment of California's global climate leadership.

And many states across the country depend on that vision that California sets.

In fact, E2 is advocating for passage of a cap-and-trade bill in Oregon, which is modeled off of California's program. The package proposed by staff will further the Cap-and-Trade Program's success.

The amendments provide an appropriate balance of ambition and price containment, and will ensure the program maintains the flexible market-based approach, while safeguarding the market's sacred role necessary to reduce emissions in step with our 2030 goals.

Therefore, E2 requests the Board vote yes on staff's proposal. (ENVENTREPRENEURS)

Comment:
We've worked closely with staff and very much appreciate the allowances the staff have provided for legacy contract generators without industrial counterparties.

We fully support the draft amendments before you today, as well as supporting AB 32 and the Cap-and-Trade program generally. (CROCKETTCOGEN1)

Comment:
We're a waste energy company that has two facilities in California. We operate the facility for the City of Long Beach in Long Beach, and then we own and operate a facility in Stanislaus, where we process municipal solid waste that would otherwise go to a landfill. By doing that -- you know, these facilities were build to take care of waste.

And so we follow the waste hierarchy, the reduce, reuse, recycle. So we max -- make sure our communities are maximizing recycling efforts, and then we take the stuff remaining from those into our facilities. We combust it at a high temperature, clean the air. Our emission profile is very low.

And we've shared a lot of that data with the -- with the Board. We're concerned that the current regulation and the current amendments do not treat the waste sector evenly, and there's a significant, you know, non-parity here. All we're asking for is to be treated the same as landfills. Landfills were legislatively taken out of the cap. We are in the cap.

We're actually better from a greenhouse gas perspective than landfills. So for every ton of waste we process on a national average, we reduce greenhouse gas emissions by about a ton. It's a little smaller reduction in California, because of your low carbon grid, which is terrific. But both CalRecycle and CARB have both done independent studies that have shown that waste energy is a far better alternative than landfilling of this material. So we are asking that the Board consider making some additional changes to the amendments and bring parity into the waste sector.

I think we have been brought into the electricity sector into the Cap-and-Trade Program. And that's really not where we fit. We do not -- our existence is not to create electricity.

Our existence is to get rid of waste, which is against the land -- you know, kind of competing with landfills. And so the energy that we generate about nine times more power than a landfill gas project is a terrific co-benefit, but not the primary function.

And so we'd ask that the -- you know, the Board consider this.

The CARB in their 2015 amend -- appendix C was -- basically spoke to this exact question. So they were looking at whether -- if you put waste energy in the cap and you left landfills out of the cap what would happen, and I quote, "This approach would likely result in more greenhouse gas emissions, if it results in the increase MSW going to landfills". And so all we're doing -- all we're asking for is to kind of follow the science here and to remain consistent with what the findings of the staff has been. (COVANTA1)

Comment:
We were urge the Board to follow the staff recommendations for the third compliance period assistance factors. We think that that's really going to be a really cost effective and a good program going forward.

But we do have concerns with other recommendations, because they're not in compliance with the directive of AB 398 with regard to cost containment measures.

These issues are critical to keeping costs low for consumers and businesses.

Specifically, we request the Board to require additional information on the price ceiling and the use of speed bumps.

In order to ensure our program is cost effective and a program that other states and nations and -- would consider linking to, we need a lower price ceiling and we need speed bumps to be placed at the one-third and two-thirds distance between the projected floor and the ceiling prices. So we hope that you take these considerations and suggestions, and -- as we move forward. (CCPC)

Comment:
CalChamber supports implementation of a robust Cap-and-Trade Program as a cost effective means of achieving California's ambitious climate change goals, and we appreciate the hard work of the Board and staff in this proposed regulation, which does provide long-term market stability by keeping most of cap and trade's features in tact. AB 398 directs CARB to implement regulations to extend the Cap-and-Trade Program using best available science, and consider, among other factors, avoidance of adverse impacts on California households, businesses, and the economy, as well as the potential for economic and environmental leakage outside of the state of California. To that end, the proposed regulation does incorporate a discussion of the social cost of carbon, but does set the price ceiling of carbon's rating well above that level, with no apparent scientific rationale. CARB staff suggests that the best available science regarding the social cost of carbon, here the interagency working group, which was mentioned earlier, is an Obama era report, is insufficient to account for the social cost of carbon. However, in reading the Statement of Reasons, it does not appear to account

for how a five percent escalator is scientifically supported nor consistent with the balancing of any of the statutory factors required by AB 398.

The proposal that sets the price ceiling at a level far above the social cost of emitting carbon, inconsistent with the best available science, and without regard to adverse impacts on California residents and businesses. Failing to properly balance statutory factors in setting the price ceiling and in evaluating the speed bumps and third compliance period factors creates easy fodder for environmental attorneys to challenge these regulations as inconsistent with the legislative mandate. It's important to remember that California makes up a mere one percent of global GHG emissions.

Where California can make its -- most impact on global climate change is by serving as a model for a robust cost effective cap-and-trade system that encourages participation by other jurisdictions. This system requires buy-in from all parties, not just government and environmental groups, but from the businesses and industries that will support and implement these regulations.

Setting unreasonably high price ceilings and speed bumps that cause spikes in pricing and trading does not encourage participation by more moderate states, many of which have recently rejected attempts at major climate initiatives. CalChamber is afraid to step out on a limb and support additional costs where there's an immediate need, such as opposing the repeal of California's gas tax. CalChamber supported 398, and the path to get it passed was not an easy one.

If it is difficult in California, imagine how difficult it will be in more moderate states. Here, the best available science must be implemented, and the legislature's balancing factors must be considered when finalizing the regulations.

Imagine the success we can have in California if we can tell other states and nations that not only is our Cap-and-Trade Program state of the art, but has buy-in from those it regulates. (CALCHAMBER)

Comment:
Our comments today, as with those that we've made in the past, center on cost containment and focus on the continuation of industry assistance factors, a reasonable price ceiling paired with appropriately placed price containment points or speed bumps, and maintaining available allowances in the market. First, CMTA supports the proposed industry assistance factor changes.

And we would request that ARB approve maintaining assistance factors at 100 percent for all sectors during compliance period three, and post-2020 in order to protect against greater emission leakage related to high compliance costs.

As it pertains to the price ceiling and speed bump design, CMTA is concerned that the proposed amendments fail to meet the legislative intent of AB 398. To better address this, we would recommend that ARB eliminate the five percent escalator on the price ceiling, because it is unnecessary, and only serves to create the opportunity for exceedingly high carbon prices.

This creates severe political instability and jeopardizes potential linkage with other jurisdictions. An appropriate course of action in this case would be to continue the existing model by setting the price ceiling at a flat rate above the floor price. Further, we would suggest that the speed bumps be moved from the proposed one-half and three-quarter levels down to the one-third and two-third levels, in order to provide an earlier signal and check on rapidly increasing prices.

Additionally, CMTA appreciates ARB's proposal on unused allowances. And we would just note that keeping these allowances in the market limits artificial price spikes and supports compliance with carbon reduction goals.

Lastly, CMTA supports the discussion of additional industry assistance to protect against emission leakage related to high-energy costs. This will help protect cleaner, more efficient California manufacturers. (CMTA1)

Comment:
I, ACR, would like to thank CARB staff for drafting amendments to the cap-and-trade regulation that are prudent and that that carefully hue to the language of AB 398 with respect to offsets. As of yesterday, the offsets program has achieved over 140 million tons of emissions reductions from uncapped sources, unregulated sources.

Those reductions deliver environmental and economic benefits to Californians and our partners in Climate Action. To the well-meaning stakeholders who advocate against offsets, we must ask what they are advocating for. They are effectively advocating climate strategy that will unnecessarily burden California consumers and ratepayers, ultimately risking public support. I'd like to focus on the statutory provisions to ensure offsets deliver Direct Environmental Benefits in State, DEBS. As the legislative record contains no indication of the intent behind this requirement, staff have rightly adhered closely to the statutory language.

The language allows for DEBS associated with quote, "Any air pollutant", unquote.

The language allows for DEBS associated with quote, "Any pollutant that could have an adverse impact on waters of the state", unquote. No one in this room is going to dispute that greenhouse gases are pollutants.

Some, including members of the IEMAC, have asserted that such phrases as, "any air pollutant", should, in this case, be understood to exclude greenhouse gases. We would like to point out that even if greenhouse gas reductions do enable DEBS, the DEBS language is of significant consequence.

The Legislature has now required CARB to provide an assurance that offsets deliver direct environmental benefits in state. CARB's assurance has meaning.

It is understandable that the local benefits of offsets may have been unclear to many people without CARB's evaluation.

If CARB, with its expertise finds, that more offsets benefit Californians than we may have expected, that's an outcome with which we should be pleased, not unsettled.

ACR supports regulatory amendments that continue to allow a robust offsets program that contributes to climate action and delivers local benefits as articulated in AB 398. (ACR)

Comment:
I'm here to urge you to reject the proposed price ceiling, which is part of the Board's proposal today. IEEP is concerned about the harm that our communities could have if the cost of electricity, gas, and diesel dramatically escalate.

Simply put, we cannot afford unending dramatic increases in fuel energy costs. The Inland Empire covers more than 24,000 square miles. And while our region is working harder to improve our transit -- public -- our public transit system, you know, driving to get to where you need to go still remains reality. You know, I drive 45 minutes to get to work every day, and I'm one of the lucky ones frankly, because that was considered a short drive.

More and more people are spending more time on the road, and the cost of fuel is taking up a larger and larger share of their budgets. By setting the price ceiling so high, we think the Board is risking increasing that burden on drivers that face every day in Southern California. You know, IEEP supports efforts to reduce our greenhouse gas emissions.

And while we recognize there is going to be increased costs associated with doing that, we shouldn't seek to needlessly increase those costs, which we is what we think the current proposal does by setting such a high price ceiling.

California -- you know, as was mentioned earlier California is responsible for only one percent of the world's greenhouse gas emissions.

And where our strength really lies in is being able to demonstrate a program that shows, look, you don't have to choose between the environment and a healthy economy.

You can have both. We think that the carbon -- the Cap-and-Trade Program is one of those programs that really is designed to really showcase that, because we can show we can achieve the successes and the greenhouse gas emission reductions without setting those impacts so high. We also urge you to keep in mind the costs that, you know, consumers and businesses are already facing. When it comes to transportation result of Senate Bill 1, IEEP opposed the initiative that would have repealed it, because we think sometimes it is important to invest in that.

And while we're willing to pay for our share to improve our transportation system, to improve our environment, we think that those same goals to reduce GHG emissions can be done with minimizing the risk to consumers by setting that cap lower. So I would urge you to reconsider that, and reject that part of the proposal. (IEEP)

Comment:
They [CARB staff] have proposed amendments clarifying how proceeds from GHG auctions may be used, while preserving flexibility for local utilities, like Roseville, to tailor programs to local needs.

So transparency and accountability are very important, especially for public funds.

So I wanted to highlight for the Board today several of the many ways in which Roseville Electric has been reducing GHG emissions while benefiting its customers. First, Roseville is using the funds to modernize our grid with smart meters.

This not only allows our system to be more efficient, reducing cost, and GHG emissions, but also allows us to provide faster and better customer service. Smart grids are essential for more advanced rates like time of use, and can also assist in integrating renewables, demand response, and electric vehicles. Second, Roseville Electric is using GHG proceeds to fund EV rebates.

We cannot reach California's ambitious climate goals without reducing emissions from the transportation sector, and Roseville is doing its part to accelerate the adoption of EVs. Third, Roseville Electric is funding a low-income refrigerator replacement program. This will allow us to safely dispose of older refrigerators, which might be leaking HFCs and CFCs, which are extremely potent GHGs, and lowers the energy bills for customers who could not otherwise afford to replace their refrigerators.

Finally, Roseville Electric is funding low-income and multi-family housing retrofit programs.

What these programs do is, first of all, they ensure that all customers can benefit from reducing emissions, not just those who can afford electric vehicles and solar systems. It also means that we're achieving the deeper emissions, which will -- deeper emissions reductions, which will be necessary to reach the State’s goals. So again, Roseville Electric appreciates the continued flexibility and local control in how it can use GHG auction proceeds.

And we hope that CARB will continue to support both, even for areas which cannot necessarily be as easily quantified, such as education or potentially wildfire reduction and prevention. (ROSEVILLEELECTRIC)

Comment:
We'd like to let the Board know that we support the cap-and-trade amendments as presented by staff today, and we believe it's consistent with AB 32, as it was discussed and negotiated in the legislature. CSCME believes it strikes a balance, and will achieve the State's post-2020 greenhouse gas reduction goal.

We believe it will be done in a cost effective manner, while minimizing emissions leakage, which we all recognize any leakage would undermine the program, damage the economy, and hurt employees. CARB staff has repeatedly recognized the high risk of leakage that our industry faces, year-in and year-out.

These amendments will minimize the risk of leakage to our industry in the near term. As such, CSCME encourages you to adopt these amendments as soon as possible. (CSCME)

Comment:
I'd also like to thank staff for preparing amendments that were largely in support of. My company, Bluesource, we've been involved in developing projects for the program since its inception. We've worked on 26 projects so far that have generated around 10 million tons of climate benefit. We're really proud of that.

We've worked really hard, and we've been able to hire folks in state. These are current and future climate leaders, folks that are passionate on this issue.

And based on that, I want my -- my comments are going to focus on largely the DEBS issue.

And if we take a step back for a second, it's been -- always been my understanding that the program was designed, California's program, to extend beyond California's borders in terms of inspiring change, the concept of climate diplomacy. And I think we need that more than ever.

I mean, you step outside this building and take a breath, and you have a frightening reminder of the need for climate diplomacy right now. And so also the California program was based on science based -- it's a science-based program.

And within that is the idea that a reduction that takes place anywhere creates a benefit everywhere. I firmly believe that.

And for us, the view of a reduction in offset utilization is not only going to increase cost to ratepayers, but it's going to hamper the ability to inspire others to follow and create these types of projects. In a way, I view the offset program as an ambassador, in being able to work with public agencies, private landowners, different folks across the U.S. to inspire change. With that in mind, a couple of specific ideas. It would be our recommendation… also that the process for review for DEBS designation would take place pretty quickly.

I think there's currently a backlog of review right now for projects that are in the queue.

And we -- we're kind of fearful that depending on how this goes, if there's a project-by-project review on DEBS designation, that backlog is going to increase even more. And so I think there's an opportunity here for transparency and replicability in decisions that are made about application of this DEBS issue that I think will be really important. And my final comment is uncertainty around the DEBS issue is not good for the program overall.

It's going to lead compliance entities to be uncertain with what they have, and new projects will be on hold. (BLUESOURCE)

Comment:
I wanted to first staff off by saying that we are strongly supportive of the Cap-and-Trade Program and appreciate legislative efforts to extend it through 2030. Also, want to thank staff for helpful clarifying edits that were reflected in the 45-day package, and had some recommendations to further improve in the 15-day package.

For public power utilities, I wanted to focus our testimony on improvements for the POU use of allowance value. This includes addressing some potential concerns with the proposed quantification methodology that we fear might be overly prescriptive and could preclude investments in projects and programs that would reduce emissions, thinking about transportation electrification initiatives. That might not always be easily quantifiable. As well as issues with vegetation management, particularly given all the tragedies with wildfires across the state right now. We don't want to see barriers to investments by publicly-owned utilities in those types of programs…

As far as the price ceiling goes, our number one concern is ensuring that electricity prices remain affordable, particularly for our low income and middle income customers.

And we had one other recommendation to CARB staff, to the extent that there may be programs and projects that aren't explicitly outlined in the proposed regulation that perhaps there be a formalized process for utilities to come to the CARB Board to get a case-by-case showing of yes or no on whether or not cap-and-trade proceeds could be invested in those programs as a helpful clarifying edit.

[following a clarifying question from Mary Nichols, the commenter responded as follows:] For the use of allowance values, there is a provision about quantifying the emissions reductions that would be associated with those investments. And our concern is that not all of the programs and projects would be easily quantifiable. So that was the concern that we'd outlined in our comments. (SCPPA1)

Comment:
And as part of that [AB 398 process] work, we worked with the legislature, and they codified, for the first time, the use of offsets. So now there's a statutory mandate to have offsets in the program, which we think is great. We think that maximizing the use of offsets, as presented in the slide show today, helps with cost containment. And offsets, just a reminder, are real, quantifiable, enforceable, verifiable, and permanent reductions outside of cap sectors. I think you're going to hear from many folks today that are supportive of offsets. We are supportive.

We submitted comments about DEBS. We're supportive of the statutory language being used. We're supportive of some of the other technical changes that are being made for materiality and regulatory conformance. (VERA)

And so the only comment we would -- we would suggest is that, along with what Roger said earlier, was that the sooner you can figure out what an out-of-state DEBS is and go on a project-level, project-type basis, rather than a case-by-case basis -- I mean, a protocol basis, that would be helpful to allow folks to understand what their investments

mean, and how quickly they can understand if you're an entity buying an offset, what category it falls into, because there are certain market requirements that are playing out as we speak. (VERA)

Comment:
We think that they are a good start, but there are still a few areas where some additional work is needed. On the price ceiling, we are concerned that staff's escalation factor leads to a divergence between the floor and the ceiling, which means less cost protection in the later years of the program when it is actually needed more. To address this concern, PG&E supports using a fixed adder on the floor to set the price ceiling, which would lead to a constant distance between the floor and the ceiling, which gives greater consistency and provides better cost protection in the later years.

We'd also like to urge ARB to continue working with the natural gas utilities on natural gas allowance allocation, so that that allocation helps to foster the decarbonization of the natural gas sector, rather than hindering it in the future. And we'd also like to urge staff to provide equitable treatment of the types of projects that utilities can spend their allowance revenue on. We believe that renewable natural gas projects are also renewable energy, just as renewable electricity projects are and should be explicitly allowed.

On the overallocation, we agree with ARB staff that the current cumulative caps constrain GHG emissions through 2030, and support a steadily rising price signal. Our 2018 market study with NERA is consistent with this view.

The study finds high allowance prices in the late 2020s under ARB's existing program design.

And these high prices occur sooner if significant allowances are removed from the parket -- from the market. We, therefore, support staff's current position, and we look forward to working with staff on continuing to improve these amendments to ensure a program that is both effective and sustainable. (PG&E1)

Comment:
NextGen is broadly supportive of the proposed regulation. We thank the Board and staff for the extensive opportunities they've provided for public participation, the thorough and transparent processes that has informed this proposal.

First, the price ceiling drops off significantly from current trajectory of the single reserve tier in 2020. It doesn't catch up with that until 2027. And while we see little risk of the price ceiling actually being reached under current market rules, we are concerned that this trajectory does exclude any possibility that market prices ever actually match or really remotely approach modern estimates of the social cost of carbon. We ask that the price ceiling and potentially the floor would be revised to better approximate the social cost of carbon, while still remaining highly cost effective compared to any additional direct regulations that may be required if cap and trade does not produce the level of reductions that are needed in order to comply with SB 32.

Second, the proposed revision to the current regulations to provide an additional subsidy of $365 million primarily to oil refineries through the change of the industrial assistance factors from current levels at 75 percent to 100 percent for the third compliance period. It's not based really on any assessment of leakage risk. There's virtually no risk of -- to -- of leakage from oil refineries.

And that change would come at the expense of GGRF revenue that's badly needed to actually provide emissions reductions and undermine the effectiveness of the Cap-and-Trade Program to incentivize reductions at those direct sources. We ask that that proposal be rejected, and that would be in greater conformity to AB 398, where the legislature had the opportunity to consider this change and rejected it, as well as AB 197, which directs the Board to prioritize direct emission reductions at major sources.

Finally, we do ask that the Board require staff to take a close look and propose regulatory changes that may be needed, if it turns out that either because of oversupply or other elements of the market design, cap and trade is not performing at the levels required of it and envision in the scoping plan. So we think that that would be a good -- a good proposal for subsequent regulation. (NEXTGEN)

Comment:
Following the passage of AB 398, CARB is taking on a big task to improve cost containment within the Cap-and-Trade Regulation by establishing a price ceiling and two intermediate price containment points or speed bumps. Additionally, CARB was tasked with evaluating oversupply or checking on the numbers of allowances within the program.

First, I wanted to request your consideration for the comments submitted by WSPA on the proposed regulation as we believe that they will enhance it. In reviewing the proposed regulation, CARB staff has chosen the ceiling and speed bumps to escalate at five percent, the same rate as the floor. It is unclear why this was chosen, as it only serves to increase the cost associated with the program. Peeling back the layers of previous rulemaking documents, the five percent escalator is based on the federal cap-and-trade proposal by Waxman-Markey in 2009, which intended to match a firm's alternate investment options and encourage early reductions. This reasoning has little to do with cost containment.

For oversupply, it is encouraging to see CARB staff not make any hasty decisions to withdraw allowances from the budget, which will only serve to drive allowance prices higher. We believe liquidity in the market is important and provides time for firms to evaluate and implement emission reduction projects in support of the program's goals. Those that believe the program is oversupplied must be under the incorrect opinion that a large disproportionate fraction of the participants in the program can bank allowances over multiple years to achieve the results. The ability for enough firms to accomplish this is questionable, and assuming so will distort the actual benefits of allowance banking and early reductions. (MARATHON)

Comment:
I'm here today because we have concerns with the proposed amendments to the cap-and-trade regulation. In particular, section 95894(e), known as Legacy Contracts. I believe that the proposed amendments to the legacy contract language is counter to the ARB original intent of the legacy contract provisions to provide transitional allowances that encourages negotiating GHG costs into revised contracts. Section 95894(e) should be removed from the rulemaking package, because it would not encourage renegotiation. And we are concerned that these changes may actually create a new barrier to renegotiating legacy contracts. Furthermore, the Board should consider whether the legacy contract provisions are even necessary at this point.

Given the original intent of the legacy contract provisions, all or most parties should have already revised contracts by now to incorporate GHG costs, absent unusual circumstances not contemplated when the legacy contract provisions were first promulgated. Give that some parties continue to seek legacy contract relief, rather than renegotiate contracts, it's like that the legacy contract provisions as written have caused unintended outcomes, disincentivizing certain parties from renegotiating. To avoid this unintended cons -- circumstance, we ask the Board to amend the legacy contract provisions to require an applicant to make a demonstration of actual cost exposure linked to legacy contract GHG emissions in light of the free allowances provided to an applicant and its direct corporate associates. (P&G)

Comment:
I want to speak to an issue that was raised in the staff proposal -- or the staff presentation related to the treatment of fuel cells and the potential for a follow-on rulemaking that we understand would be noticed sometime in 2019 to more clearly address fuel cells, and the environmental benefits that are provided by fuel cells. Fuel cells -- Bloom is a developer of fuel cell systems.

And what's important about these systems is they not only provide reliable on-site sources of electricity, but they don't emit any criteria pollutants by virtue of not involving any combustion. The -- in the longer term, Bloom is very focused on developing fuel cells that can run on renewable natural gas.

And at the recent global climate action summit, we worked with Bay Area Air Quality Management District to provide a demonstration project of a cleaning module that can be installed on a conventional Bloom energy server to basically run it on renewable natural gas. And that's part of the longer term vision that the company has, consistent with the goals of SB 1383, and as well as AB 2 197, and AB 32, and SB 32. What's happening right now in the program is that there are some instances where fuel cell systems are included under the Cap-and-Trade Program as a directly regulated entity when fuel cells run on conventional natural gas. And the issue that that creates is that it poses a choice for the customer to basically install the fuel cell and become a regulated entity, and may basically create a disincentive from reducing emissions on site, for example, from diesel generators that may not be included as part of the cap-and-trade threshold, or what may keep them below the cap-and-trade threshold. So what we're

looking for is really a signal that we'll provide a transition in the longer term to convert conventional fuel cells to running on renewable natural gas. (BLOOM)

Comment:
I will be brief and just align our comments with our colleagues from the food processing industry and our colleagues from the dairy industry that will speak later. We are comfortable with many of the cost-containment provisions in this amendment, but we continue to be concerned with the cap and the level and expense of that cap. And as our members are vulnerable to leakage and out-of-state competition, this is a very important issue for us. (AECA)

Comment:
We have a concern about today's proposal and the effects that it's going to have on fuel prices, and energy costs. Many of the people in my trade have a lengthy commute to work. Although California is kind of in a construction boom right now, many of those jobs are in cities that our members can't afford to live in, so they commute more than 100 miles a day just to get to work. The working men in this -- men and women of this state have already shouldered the higher -- highest energy costs in the country and a housing market has priced them out. We can't afford to take on a larger financial burden. If costs continues to rise, we'll have less money in our pocket to spend on goods and services that support our local economies and our families. We urge that you take some cost containment into consideration on this, and take a good hard look at what it's going to do to the working people of California. (NCCRC)

Comment:
So kidding aside, we are here in general support of the proposal from staff, but we -- I want to highlight and echo a couple of the comments that my colleague, Fariya Ali, made earlier. We submitted a letter along with other gas utilities. And we appreciate the staff's work with our sector on the question of natural gas allowance allocations. And to date, we've had a conversation that feels like it's gone on for a little bit more than a year now. And we appreciate the time and effort from staff, but we really want to continue that conversation. And we would appreciate Board direction to the staff to continue working with our sector to continue to address this issue. You know, it's acknowledged in the initial statement of reasons. It's an important issue, and it recognizes that gas utilities are actively working to get -- to decarbonize.

We worked active -- this year actively with Senator Hueso on Senate Bill 1440. We'd hoped that would have resulted in a procurement requirement. We ended up with direction to the PUC and ARB to consider such a program, and we support that. These efforts are absolutely consistent with your Short-Lived Climate Pollutant Plan. We -- you know, we see renewable natural gas, renewable hydrogen as delivering on the -- that very important piece of California's climate strategy. I also want to mention that both PG&E and SoCalGas received permission this year sell renewable -- procure and sell renewable gas at our utility-owned stations. We are actively working on the dairy pilot projects, which are progressing, and hopefully there will be more -- excuse me -- more news on that very soon.

And then I wanted to touch on the other point, the equitable treatment of allowance proceeds. The electric utilities are appropriately being allowed to use allowance proceeds to invest in infrastructure improvements, whether it's renewable energy or in support of zero-emission vehicles. We believe that gas utilities should be given the same permissions. Renewable gas is a renewable energy, and we would like to do more with that. And allowing us to use our allowance proceeds in that way, we think makes a lot of sense. Similarly in support of near zero-emission tech -- infrastructure in support of near zero-emission vehicles and fleets. We think it makes sense to allow us to use our allowance proceeds in that regard as well, and we would like to continue that. We would like to make that request to the Board and continue those conversations with the staff. (SEMPRA)

Comment:
I think the most important thing to say at the start is our organization is -- Near Zero is fundamentally agnostic as to how California achieves its climate policy goals. We think there are strong reasons to consider market-based policies like the Cap-and Trade Program, which have many advantages in terms of controlling costs. I want to start off first by thanking staff, who, in their remarks today, mentioned this issue of DEBS in the greenhouse gas accounting for offsets, and referred to IEMAC report, which I think comprehensively analyzes whether or not there are DEBS associated with greenhouse gas reductions beyond the offset credits that offset developers rightly receive for their projects. I think it's very positive for staff to consider looking into changing the ambiguity that's in the current rule. I want to thank them for their engagement on that.

Despite that progress, I do want to raise some serious concerns, which I know many of you have heard before from me about the overallocation issue. And I want to return to, Chair Nichols, your opening statement at the beginning of this session about the scoping plan and the role the Cap-and-Trade Program has consistently played in the Board's efforts to control climate change. The Board has always used this program to quantitatively backstop as an insurance policy to pick up the emission reductions we don't achieve through other strategies.

And with respect, I have to say the quantitative analysis supporting that notion in the current package is factually incorrect. Appendix D's analysis of this issue rests on a math error, plain and simple, and it does not provide the quantity backstop that the program used to play. Now, that is not to say that it won't produce important emission reductions or contribute meaningfully to the state's climate goals. But the role identified in last year's scoping plan was for this program to continue to rely as a backstop program that guarantees we hit our target. The proposed structure today increases the ambition of the program relative to today, but it doesn't rise to the level of ensuring we reach our goals.

And so I would suggest to you that if no adjustments are made to oversupply, not even to monitor the issue, as I would hope the Board would consider in the future, we're looking at a situation where one of two possibilities is the most likely outcome. Either we need to develop more regulations to get on track for our 2030 goal, especially addressing the tough sectors, or we risk not being on track to get our goal. Because

again, the role identified for the Cap-and-Trade Program in the scoping plan is almost half of the reductions called for in 2030. And it is quite clear that if emission reduction trends continue as they have for the last couple of years, that we will have a significant surplus of credits, likely several hundred million, that enter the next phase of the period and make it unlikely that the program will constrain emissions on a quantity basis. Now again, we respect that there are many reasons to do tradeoffs between this policy and other approaches. And my group doesn't see one particular approach or another as necessarily superior. But the analytical foundations of the policies portfolio need to make sense. And with respect, they currently do not. (NEARZERO1)

Comment:
I'm here to express our support to amend the cap-and-trade regulation to make the program consistent with AB 3398 requirements. BICEP members recognize the economic opportunities associated with tackling climate change and the costs of inaction, and are committed to working with policymakers to pass meaningful energy and climate legislation and regulation that will help the nation rapidly transition to a low carbon 21st century economy. A strong Cap-and-Trade Program in conjunction with California's other key climate programs, such as the Low Carbon Fuel Standard, is critical to meeting state's 2030 GHG reduction goals. California's Cap-and-Trade Program has a track record of successful compliance and has proven an excellent backstop for the state's GHG mitigation program, ensuring California will meet its current climate goals. The Cap-and-Trade Program and complementary air quality measures are crucial to the state's powerful toolbox to reduce emissions, maintain market certainty, and increase economic vitality while ensuring all Californians have access to clean and healthy air. The proposed amendments provide a reasoned approach to ensure consistency with AB 398.

In particular, the proposed price ceiling in combination of cost containment measures strike a good balance to drive emission reductions, while providing a safety valve, if something unforeseen with the market occurs.

In summary, California's Cap-and-Trade Program is working. The program has become an integral part of the economy stirring innovation and building new industries. Furthermore, California's demonstrated success in addressing climate pollution in the world's 5th largest economy is critical for inspiring similar action around the globe. We urge the Board to adopt the proposed amendments to ensure the program continues to drive down emissions in a cost effective manner. (BICEP)

Comment:
We support the Cap-and-Trade Program and believe that your staff has worked very well with stakeholders to implement and propose these amendments. There's a lot to like in the 45-day language, but we look forward to working to improve with the 15-day language and subsequent implementation.

And first, we support flexibility in the POU use of allowance value. There's been some changes to clarify that. We would like more. We think that the allowance proceeds should be usable for general education and outreach about climate change, and energy

renewables efficiency, et cetera, because we believe it's very important to continue to keep public support for the program through that kind of general education.

We also believe that the allowance proceeds should continue to be able to be used to procure allowances for compliance with reasonable metrics about using those allowances, similarly to the ones that were already allocated.

And then we recommended a variety of additional specific allowed uses in the regulations, such as efforts to reduce GHG emissions from forest fires and programs to foster low-GHG refrigerants.

We support the cost containment provisions with some revisions. What we would like to see is something very similar to that -- remember that flatter line on the chart that you saw, a price ceiling that is at the price floor plus $60, and at price containment points that are very simple, price ceiling plus $20, and price ceiling plus $40. That spreads those price containment points out. We want to have two distinct price pauses as the legislature intended at levels that allow cost-effective market investments.

We also support removing the barrier of additional cost burden for electrification. This has been a long-standing issue. You must -- you guys must develop a plausible and feasible method to do this. And it should be okay to use estimations like you do in the LCFS program, like the projections that are used already in the electricity system allocations, and are likely to be used when your staff updates the allocations potentially for the 60 percent RPS. That's going to be based on projections. The ability to use projections for electrification should be a part of that.

Finally, we support the staff position on oversupply and banking, and urge you to support that position. They thought through this well and decided to maintain the provisions in the program that worked best. Any changes for that are likely to reduce the program effectiveness.

One last thing, staff mentioned proposal and 15-day language to remove the true-up of allowances -- legacy allowances based on the CPUC decision. We do not -- we hope you do not adopt that change, because it's important to SMUD. (SMUD1)

Comment:
We're concerned that any increase in -- for example, some of the farm workers travel 60 miles, 70 miles to go work from Orange Cove to Mendota to go pick melons, okay? That is outrageous and it's real costly, when you're dealing with farm workers that are in poverty. But you know what, they're proud farm workers, and they go out and work every day when there is work. They work on a seasonal basis, the lowest wages that you can ever imagine. But you know what, we're still proud and we keep working. We are the food basket of the world, and people don't recognize that. If you increase the food who's going to pay for it? The people. The people will pay for it. So this is why I'm here asking the Board to please -- and I'm glad to hear the Chairman say that there's misinformation. I'm glad to hear that. And I'm hoping that it is -- that is the cause, because we are concerned that the well-being of the citizens of our community are

really concerned. And we are concerned that -- a lot of people don't know, but we're having to pass taxes for law enforcement in the small rural cities, because we're losing our police departments. There's a lot of poverty in the cities in Fresno County. But you know what, we still want protection, so we tax ourselves, you know, for police protection. So again, Madam Chairman, on behalf of the citizens we serve, especially the farm workers and all of our communities, we thank you. (ORANGECOVE1)

Comment:
Please consider our opposition for the proposed price ceiling. Even though we realize that this is a worst case scenario, we always know that in California, worst case scenarios seem to happen more often than they should. And so we -- we would take that as a part of the Board's proposal today to oppose the ceiling. Our business community in the Coachella Valley, like other communities throughout Coachella -- throughout California depend on affordable energy in order to sustain jobs. As we all know, the cost of doing business in California continues to escalate, which makes it harder for our businesses to grow and pay good wages. It is important to promote an environment that supports small businesses owners and entrepreneurs instead of continuing to burden them. We already know that California consumers pay 49 percent more than the national average for their utility bills. Our members cannot afford higher fuel and energy costs. We feel the lawmakers' intention is that your Board needs to avoid adverse impacts to our residents, households, businesses, and not create excessive costs that will hurt the state's economy. I ask your Board respectfully to reject the proposed high ceiling, which would result in devastating effects on our small business community that rely on economic activity. (COACHELLA)

Comment:
Our organization was also in support of the cap-and-trade extension. I'm here this afternoon to speak in opposition and of concern with the proposed price ceiling before you for consideration here today. Our 1,200 members and the 77,000 jobs that they provide in California's Central Valley represent a beautiful mosaic of mom-and-pop shops, small family-owned businesses, immigrant-owned businesses, and women-owned businesses. Over two-thirds of our members have less than 10 employees with many of those being people who have just started their business and are grasping at the American dream. I say all that to emphasize that the proposal here today will make their dreams of growing their business or surviving that much more unlikely. In our home region, businesses owners pay more in energy costs and in transportation costs than near any other region in California. We have hotter and colder weather. We drive longer distances for daily necessities. And we drive more than anyone else. Higher prices will devastate our business community and our families. This possible increase in fuel costs will force thousands of more families to make the choice that too many already have to make between fueling up to go to work or putting food in the fridge for them and their kids. This will force a business owner trying to make payroll, while balancing rising costs in products question whether or not it makes sense to go forward. We already pay, as one of my colleagues said, 49 percent more in utility costs than the national average. And because of this, consumers are hurt all the way down the line. Let's not make it harder for business to stay in business. Let's not hurt employees and families. Let's consider our friends and neighbors in California's Central Valley who can't

afford this. I please ask that you reject this proposal and take our statement into consideration. (FRESNOCC)

Comment:
I am here because the pricing proposal before you today will hurt my community. CARB's proposal is not what the legislature envisioned when they came together from both sides of the aisle to pass AB 398. The language in the bill directed CARB to establish a ceiling on the price of allowances to avoid adverse impacts on residents, households, businesses, and the state's economy. This proposal will definitely cause adverse impacts on my community. Our residents cannot forward such an increase in energy and fuel costs. I ask that you take our residents into account when you cast your vote today and urge you to follow the directive set forth by the legislature. Thank you for your time and consideration. (FOWLER)

Comment:
I'm here today to voice our strong opposition to the proposed price ceiling in CARB's proposal. The Latino Seaside Merchants Association represent Latino businesses in the tri-county area, San Benito, Monterey, and Santa Cruz County. Our business community depends on affordable energy in order to sustain jobs that pay good wages, offer products and services at reasonable prices, and promotes an environment that supports small business owners and their employees. We are concerned about the harm to our members if the cost of electricity, gas, and diesel dramatically escalate. These excessive costs will hurt our suppliers and consumers. With the increase of costs, our suppliers will be forced to increase their costs, which in turn affects the employees. Our businesses and consumers cannot afford higher fuel and energy costs. We have situations where we have -- as some of the other groups have mentioned, we have our employees and our businesses that are commuting. They're going three to four hours to another location, and sometimes they're piled up in a car or in a van, and they're -- you know, they're basically pooling their resources to be able to get to their jobs. If you increase that more, and they haven't received any type of wage increase, what happens is then they really are impacted and it's a detriment to their family. Additionally, growing costs under this proposal makes it more difficult for businesses to maintain good wages for their employees. Unaffordable operational expenses that can't be avoided will likely result in pay raises -- pay raises getting deferred, new hires getting put off, or even workers losing their jobs. I ask the Board respectfully to reject the proposed price ceiling, which would only make it harder for these employers to sustain good-paying jobs and not have our economy threatened. I also ask that we consider what's happening around us today. We are having a disastrous fire in California in two locations. And all those vehicles that are commuting, the fire trucks, the supplies, the sheriffs, the paramedics and all that, they're making round trips. They're going across. They're help -- they're coming in from other areas. You can only imagine how much more the cost will be if they're -- the fuel costs are increased. I also want to ensure that you're aware that the central coast at the seaside merchants -- Latino merchants represent is predominantly the agriculture and hospitality industry. And the agriculture out of the Salinas Valley, which is known as the salad bowl of the world, is the second largest in the United States. And they're dependent on transportation, and they're dependent on the fuel, and all their equipment and machinery. And, you know,

when you look at it, it's not just the employee. It just keeps on going up till it gets to the consumer. (LSMA)

Comment:
And I, too, am concerned about the rise in the cost of gas and electricity for my community in South Central Los Angeles as we cannot afford the cost increase. And I ask the Committee to be mindful and considerate of my neighbors, as we would have to decide which bill to pay, gas or electric, if you make the decision to increase the cost of gas and electricity. I ask the Board to be considerate as the working class for we just can't afford it. I'm a part of that group. If the cost jumps the way that we've been told, just couldn't afford it. We have to pay for gas. That price goes up. Electricity goes up. The cost to ride the train goes up. Take the train and the bus in order to get to work and then to get back home. That's an increase, and we would like -- I would like for you to be considerate of us the citizens. (NANLA)

Comment:
Today, I believe a lot of people in this room are protecting the worst case scenario. For us, gas prices for middle class people, people of lower than middle class, it affects us directly and indirectly, whether we want to admit or we don't want to admit it. In the famous words of Muhammad Ali, "Don't count the days. Make the days count". I would say today, for us, don't count the dollars, but make our dollars count that we've already spent. For us, in Los Angeles, I also work with the Black Lives Matter. But today, for me, I would say our communities matter, our gas prices matter, our economics matter. And raising our gas prices would just gash us. I would ask that this Board recycle the money that we already have into the community programs that we have, especially for Los Angeles, Compton, Inglewood, Long Beach, anywhere inside the L.A. county area and the -- and outside of there. It affects our communities, our youth programs. It affects everyone. I was speaking with a gentleman today that we came down here with, and -- I just found out. I didn't even know this. We don't even have -- at some L.A. Unified School Districts, we don't even have a nurse that comes to our schools every day. Some of them have to wait to get sick basically. That's basically what you're saying. Like, you can't get sick on Monday. You've got wait till Tuesday or Wednesday. That affects us directly. I would -- I would thank you guys for your time, and I would just ask that the monies that we have that we would allocate it directly to our communities and the programs that we have for our youth today. (MINISTERSCONVENTION)

Comment:
We are deeply concerned that if there's any increase, because it has a profound an impact on those within my community. Also, many of the people in my community are paying 50, 60 percent of their salaries just for housing. So any increase anywhere will have a profound impact on their lives or whether they eat, or even whether they have a place to live if there is an increase. So I want us to please look at the cost and hopefully like -- like the gentleman before me had talked about the worst case scenario, it can happen. So if it does happen, I want us to be proactive -- the Board to be proactive in putting in mechanisms in place to safeguard the community and to safeguard the most vulnerable. And I believe that each and every one of us are aware that California leads the country in the poverty rate, where there is one out five Californians living in poverty.

And so as we make considerations, I think that we need to look at the people more than the corporations. We know that the large corporations have had a windfall due to the recent tax break. And so we need to give some break to the people who actually make things happen. Also, CARB has acknowledged that the majority of the stakeholders input has indicated the importance of a reasonably low-price ceiling and appropriate placement of speed bumps to put market safeguards in place. Nonetheless, the agency has included in its SRIA a lower range and upper range scenario of price ceiling and speed bumps that are higher than a majority of the stakeholders recommended. The stakeholders have spoken. I plead -- I stand here asking that you would hear us. Also, Supervisor Gioia, I want to thank you for bringing up the point, because I have noticed that about if there's just an interruption, oil prices or gas prices go up 50 percent. I don't know what authority you have, but I would encourage you to make sure you look into that. And next time it happens, that something -- that there is an investigation, because many people are hurting unnecessarily. (HOLMANUMC)

Comment:
We understand more that we have to do more to reduce exposure of pollutants and improve the quality of life in California communities facing environmental and economic change, because -- and due to facing environmental economic -- the change through the CARB -- through CARB. And it's very important for us to truly understand the decisions that you guys make. As -- but as we further analyzed this situation, we have concluded that despite your higher purpose of prioritizing environmental justice, using the amendment to do so really is not the way to motivate. In fact, it's the way to shun the possibilities of communities positively viewing your higher objective, and engage, and collaborate with CARB. This is why we respectfully ask you to consider our strong opposition to the proposed price ceiling this Board is doing. (LBA)

Comment:
We've heard that a lot today as it relates to the worst case scenario. And if we get to the worst case scenario, are we prepared for the worst case scenario to -- we have a safety net and place to safeguard us. I would like to say that the Board's proposal that's going to take place could worsen -- could worse the cost of all Californians, especially on the -- of the seven million California families already struggling just to get by on a day-to-day basis. ZEV subsidies aren't going to communities of color, minorities. They're areas with the highest concentration of solar panels or wealthy suburban. Many low income Californians can't afford to live near their places of work simply because the cost of housing is simply too high and we cannot afford it. Increasing transportation costs will affect them the most, simply because they can't afford to live near their work place. In my community alone -- my community alone that I see every day, there are people who are simply struggling on a day-to-day basis. We're feeding. We're housing. We're doing the best that we can. But if things are constantly increased, it takes a great impact and effect on the surrounding communities at large. I would say to you today, and I urge you to take steps that will contain costs and meet our environmental goals, not simply to raise the price, because if we hit it and the refinery said the pump is going to hit it, the station owners are going to hit it, and we're going to hit it, and we're going to feel it hard into our pockets. (ADAMS1)

Comment:
I normally would not get involved with such issues of politics. However, I also pastor a group of people who will be well deeply affected if gas prices rises higher than they already are. I've heard several times about worst case scenario. As far as I'm concerned, we already are in worst case scenarios. I don't know if this is allowed, but the Bible says when the galley are an authority, the people rejoice. But when the wicked are in power, they groan. And I want to just share that the church in which I pastor, Solid Rock Mission Church in the City of Compton, Compton is a very poverty type community. Things are already bad in that community, really bad in that community. Even on Wednesday nights, out of my own pocket, I make sure the community -- streets surrounding my community is fed, because things are that bed. That diabolical around that city. And I would just say please consider that these gas prices, if they go up, everything goes up, crime goes up, and everything else goes up. Thank you so much for this time. (BMC)

Comment:
I think we're all aware of the fact that we have to aggressively address the climate change. And listen, I'm the one that realizes that in order to do that, there are certain prices that we must pay. I want to also say that I commend you and your work. But those costs ought not be paid disproportionately by communities of color, and low-income Californians who can't even afford some creature comforts. The church where I minister I watch broken people. And these people are broken, because sometimes they have to choose between -- between a meal and a ride to work. The reality is they don't work in the area that they live. And because of that, they have to -- you know, they have to travel that distance. And it has become so bad in our community that they're losing their jobs. And they're losing their jobs, because they can't get to work. All I would encourage you to do is to recognize that reality. Appropriately. Even as you now, you know, decide on this very issue. (GSBC)

Comment:
I'm concerned about how golden it is as it relates to is it because of the economic welfare and policies or is it because of the golden cloud that hovers over our communities, because of the increasing amount of pollution. Pollution that greatly affects our communities, disappropriated number of our youth, asthmatic, can't breathe. And is already stated, if a parent has to make a choice, because there's not a nurse in a LAUSD school, you have to ask the question, if the child gets sick on the day that there's no nurse, that parent has to leave their job that they're already struggling. Many parents are working multiple jobs because of the downsizing of the work days. Some parents now multiple jobs because they've been taken from a 40-hour week because employers don't want to pay for health care. Some working 28 hours and have to go back and do another job. They have to use public transportation in order to get to work, go through school. I'm Part of the National Action Network Los Angeles Chapter. And I sit and watch them walk to school with their children, get on a bus to go to work, to leave work early, to come back and get their child or their children to take them home. Hopefully, there's something to eat, because they've been enough hours they've accumulated in order to feed them. Murphy's law says whatever can go wrong will go wrong. And I understand what was said and what was stated as it relates to potential

possibilities. But if it can go wrong, it will go wrong. And I'm thankful again for looking at what our supervisor here said, whenever there's a problem in El Segundo about the gas, refineries shutting down, it hits us first. Our communities become a premier target for price increase. Everything is going up, and even though they're moving toward $15 an hour, that's really not a substantial amount of money, if you're only working 20 hours a week. Thank you so very much for this time. (MOSELY)

Comment:
I ask you today to consider rejecting the price ceiling that is recommended in the staff proposal, and adopt the one that is more in line with the bipartisan agreement in AB 398. I know our residents, businesses, and our local economy will feel the negative effects of increased energy cost, whether it's directly to refuel energy purchases or indirectly in the cost of goods and services. Our local economy is driven a lot by tourism. I know a lot of other cities around the state it's the same way. Significant increase in the price of fuel will have negative consequences on our local businesses and workers who rely on a healthy tourism presence. Unlike other cities in the State coastal areas, our local economy is still recovering from the Great Recession. We do not want to take a step backwards. AB 398 represented a significant victor for the environment and for all Californians and it received bipartisan support, as it should have. The expectation was that the regulatory process should avoid adverse impacts. I believe this current price ceiling proposal falls short of that expectation. In Orange Cove, there's not a lot of plug-in stations to do that or solar panels on roofs. These proposals will have real-life consequences for people of color, people in low-income communities. I don't believe that it's alarmist for them to be here, and to talk about those real-life consequences. And so I ask you to consider adopt a price ceiling that is in line with both the language and spirit of AB 398. Thank you. (PLACERVILLE)

Comment:
We own and manage affordable housing. We're also developers. We also run a energy program and we have been a recipient of LIWP funds. And we're able to do some really major upgrades to homes in West Sacramento and Pinole -- excuse me, Pittsburg, where we did -- using cap-and-trade funds. So just want to shout-out for that and acknowledge that. We were be able to put solar -- solar panels on homes. We were able to do major upgrades to homes, that we couldn't normally do through our other energy programs. So good on that. Really positive. Totally support that. So -- but I do need to acknowledge that we're very -- because we track the housing industry, we're very aware and sensitive about cost to housing. We are still -- we are in a high housing crisis. There is a huge lack of affordable housing rentals and ownership. So for example in my county, Solano, even though CHOC has -- is in around five or six different counties. But in Solano specifically, you know, a large amount of money is coming into that county, as well as the Bay Area, as well as the State and through REITS to buy and purchase multi-family complexes, to do minor upgrades, a lot of the time using public purpose funds, and then doubling and tripling the rents So we continue to have a housing crisis and will continue to do so, unless there's some dramatic -- beyond your role, dramatic changes in policy. But just want to point out your policy has a very detrimental effect on the cost of housing. I can go into more detail, but I'm not going to use my last minute. Just to say, unfortunately, talks have broken down between -- we

belong the 200, between your staff, that we were not able to come to a compromise or reasonable accommodation. So we filed a lawsuit. And because of discrimination -- we believe discriminatory practices that these regulations have on low income, especially peoples of color. So I want to invite everyone who has not been heard or doesn't believe they're going to be heard join us in our lawsuit. This superior court just acknowledged that our suit has merit and is advancing our suit through the court system. So we would love to work with you to come to a reasonable accommodation. Again, if people here in the room feel that we're not going to be heard, or this report is not going to address some of our real-life concerns, the court is an alternative. So thank you for the opportunity to speak. (CHOC)

Comment:
While this set of proposed amendments is not exactly what EDF had been recommending, we do recognize that CARB is balancing multiple policy interests, so we are generally supportive of these amendments.

First, we strongly encourage CARB to begin working now to identify high integrity reductions to back the price ceiling units.

It's important that CARB consult with the legislature to consider a rainy-day type fund to start the pipeline of reductions well in advance of potentially reaching the price ceiling. To guarantee the continued integrity of the Cap-and-Trade Program and maintain its position as a global model for emission reductions, the best option would be not to wait until there is revenue from the price ceiling to begin purchasing reductions to fulfill that ton-for-ton requirement.

Second, EDF maintains our position that a modest cap adjustment post-2020 is important to increase California's climate ambition.

Specifically, the 52.4 million allowances that are currently slated to be split between the two post-2020 price tiers should be removed from the program entirely.

These allowances are not needed for cost containment, and we think it’s an important opportunity to increase ambition. We recognize that CARB is trying to balance stringency and cost containment, but this is a really important step towards meeting our 2030 target to increase ambition.

So we would respectfully request that CARB give this proposal further examination or explain why they do not see this as an opportunity to increase ambition.

And then lastly, I want to address the concern about the price ceiling.

We've heard some pretty emphatic views here today.

And honestly, the reaction to this set of proposed amendments by some segments of the regulated community seems a little out of proportion with the actual content of these amendments. As I've illustrated in my previous points, if EDF had had a free hand to develop these amendments, we would have done some things differently too.

We asked for increased ambition post-2020.

And we want to see a price ceiling that's significantly higher than the previous APCR, rather than below it until 2027. But what's most important in these amendments is that California is moving forward with a program that has been successful.

Our emissions are declining. Our economy is thriving.

And we believe that staff is well within the scope of what the legislature asked for in AB 398. So in addition to my recommendations I've made, we would urge CARB, at the very minimum, to not give into further alarmist pressure and reduce the price ceiling anymore. (EDF1)

Comment:
First of all, I would like to address the provisions regarding the EDUs -- EDU use of allowance value generally. I'm hopeful that the 15-day changes staff had referenced earlier will include some of the refinements addressed herein.

Namely, while we support staff's efforts to provide greater clarity on what programs are allowed, we think that they should not be viewed as constraining the flexibility of EDUs to design and implement GHG emissions reductions programs and measures that provide the optimal benefits to their members and electricity ratepayers. To do this, we recommend that the list of programs included in the proposed amendments be characterized as guidelines. Next, avoided emissions are emissions reductions. And the regulations should explicitly recognize programs and projects that directly attribute to carbon avoidance as permissible uses of allowance value.

EDUs, and POUs, and electric cooperatives in particular, are uniquely situated to provide direct and impactful benefits to their ratepayers that mitigate the risks of wildfires and avoid increased statewide GHG emissions.

Targeted and individualized programs and measures for utility infrastructure, resiliency, vegetation management, and wildfire prevention could complement the broader statewide efforts funded by GGRF. The proposed amendments -- next issue is the quantification of emissions reductions, namely the proposed amendments appropriately call for estimates of emissions reductions, but elsewhere require EDUs to demonstrate reductions from the programs. This language needs to be reconciled.

Related to this is the way in which program emissions reductions are viewed. The total number of emissions reductions should never be the sole measure of a program's success.

First of all, as Ms. DeRivi from SCPPA noted earlier, not all program's emissions reductions can be readily quantified.

And secondly, worthy programs that provide fewer emissions than others may be providing those emissions in disadvantaged, low income, or highly impacted communities, which clearly meets the broader objectives of AB 32 and AB 617. Next,

the regulation includes a category for other GHG emissions reductions activities, which we support, but caution against a too strict interpretation. Addressing the specific requirements as guidelines rather than program limitations, as I mentioned earlier, would address this, but it is important that this section clearly allow for the use of allowance value investments in programs and projects that directly attribute to carbon avoidance… (NCPA1, MSRPP & GOLDENSTATEPOWER1)

Comment:
So 398, our read on that directly -- or specifically directed CARB to avoid adverse impacts on residents, households, businesses, and the state's economy. So anytime we look at something that potentially has an impact of fluctuating things that can impact pass-through costs down below, which we're certainly down below in the dairy industry, we certainly want to pay quite a bit of attention to that to make sure that we're addressing all the potential impacts and crossing all the t's and dotting all the i's. As the Board considers the proposed regulation amendments, it's critical to implement cost containment mechanisms that will allow the California dairy industry.

And we are such a interwoven web between our producer segment and our processor segment that we will maintain viable, and not at a severe detriment cost disadvantage to our competitors outside of California. We believe the authors of 398, Assemblyman Garcia, that 398 intended modest price ceilings and floors for credits, sufficient allowance and allocations, and industry assistance, which we are very appreciative of and have a tremendous success story from the industry standpoint through our hub-and-spoke models and so forth that have went from power generation on form, and now we're transitioning into renewable biogas that's going into the transportation segment. As mentioned in the staff report, in-state dairy offset projects are an integral part and a tool in meeting the carbon reduction, as far as the goals of cap and trade, and also meeting the state's implementation of the short-lived climate pollutant strategy.

It's very important that these off -- amendments reflect and facilitate these types of offsets. It is absolutely critical, as this industry does not have the ability to pass on any pass-through costs given our federally now mandated price setting. And then also the CME that prices all of our milk that's turned into the wonderful dairy products that we all like and love to consume. An interesting note, I would say that all segments of California are bearing a burden. When we look at national averages, we're between had 41 percent to 113 percent between residential and industrial cost, compared to the nationwide average. And I would say that, you know, California dairy families in particular have been a great environmental leader since stewards with the backing of this Board and other regulatory boards throughout the State. And we continue to find innovative ways to combat climate change. (MILKPRODUCE)

Comment:
Our bodies have been watching this issue, and we have supported AB 398 in total -- totality. However, our concerns now are around containment. One in five women, single and older, live below the poverty level, while another 32 percent have incomes higher. Yet, they are still unable to meet their basic living expenses.

And this is particularly true for older women of color, black and Latino, and they're facing currently economic insecurity. They have the greatest risk of poverty with over 60 percent, as I said, being women of color. When adding the number of older Californians at the sublevel poverty rate, with the number of hidden poor, nearly 40 percent of the Californians age 65 plus have a substandard income level, and are on fixed income. California's direct care workers predominantly women again, including certified nurses, home health aids, and personal care aids are responsible for 70 to 80 percent of the paid hands-on care for older adults, and are among the lowest paid of all U.S. workers. And approximately 45 percent of these workers are in households earning below 200 percent of the federal poverty level. Now, this data is not hidden. You can check the Commission on the Status of Women, Justice in Aging, the Kaiser Foundation, California Commission on Aging.

As a contractor, I work with the SLATE-Z in Los Angeles, the federal zone and -- in metro L.A. to create awareness just for our students alone in understanding the discount programs that are available to get to and from school. However, understanding that, and recognizing that, there are right in LAUSD 16,000 homeless students, and 10,000 students that are foster care.

So your current proposed pricing plan would be detrimental to many of these groups from employment and a residential perspective. I respectively[SIC] ask the Board to reject the proposed pricing level, and support the legislation's request, which initially was in support of AB 398, but watching the costs and the impact that it would have on the residential and consumers, I should say, just as -- as alone. Additionally, we're trying to build a strong middle class.

And as I gave you these statistics, clearly you can understand even $0.10 more almost is going to be a major impact and a deficit to them. So hopefully, Madam Chair, I've identified some real-world concerns for you in the community. (CALDEMWOMEN)

Comment:
I am here to voice our strong opposition the proposed price ceiling that is being considered by the Board today. The legislature provided a clear outline for what they wanted the Cap-and-Trade Program to be. At the heart of the design, there are cost containment features, such as a price ceiling that places a limit on the price allowance -- of allowances, as well as two speed bumps which triggered the sale of additional allowances in order to reduce market volatility. The proposed price ceiling misses that mark. The legislature fully intended the price ceiling and speed bumps to serve as safeguards that provide cost containment. If these are set too high, these will be ineffective in reducing market volatility. As a business organization, we aren't opposed to cleaner air or a healthier environment. However, we do become anxious when policies are introduced that aim to improve air quality but risk increasing the cost to do business here in California. California is already one of the most expensive states to run a business. Business here pay more on their utilities than the national average. And the gap between California and the rest of the nation is only getting worse. Under this proposal, increased costs will make it more difficult to do business in California. Rising operational costs will likely result in delayed pay raises, reduce hiring, and even people

losing their jobs. The new pricing structure needs to protect consumers, businesses, and the economy against any adverse impacts. I respectfully implore you to establish a lower price ceiling. As currently configured, this ceiling will only put our economy at unnecessary risk. (VICA)

Comment:
But first, I would like to thank the Board for the opportunity that you have provided for me, the incentive programs you have as far as purchasing a tractor incentive program. Without that program, I would not have been able to purchase a new tractor. And I would also like to have this opportunity extended to the other small farmers -- continued to the other small farmers. They need the opportunity also to upgrade their tractors, so they can participate in this clean air business. I feel that if the cost to purchase credits sky rockets, it will mean less credit to purchase and less funding for farmers to upgrade their equipment. I don't use pesticides on my crops, and I farm sustainable. When I go to farmers market, I'll also teach them how to eat the, you know, health food. So that's one of the benefits of being a small farmer. I -- also, I want a clean environment to live in, not only into the underserved areas, but also throughout the state. What I'm asking you to please consider is the consequences of setting the cost of carbon credits too high on small farmers like myself who want to do the right thing. But absent the investment of incentives to upgrade equipment, many small farmers will be -- will have to shut down, and they would have to sell their property to big ag business. And as you know, small farmers is an asset, not only to this community, but also to this civilization. If you look at the United States, the United States was started by small farmers. You know, we -- they advance on us. And I think that, you know, in order for us to get young people into it, I think that avenue should still be there. We should sustain it. Because when I ask the Board too to think about the collateral damage that will be done to the least of us, you know, if consideration isn't sent forward. That's probably all I have to do, but I thank the Board for what you're doing. But I think that not only do we have to breathe, but we have to eat in order to live in this civilization. So I think you for this opportunity to stand before you. I thank you for your time also. And I ask you in advance to take some consideration about the collateral damage that you may do to the least of us. (AAFC)

Comment:
And I'm here comment on CARB's scoping plan. Our focus is to close the ratio wealth gap through homeownership. Following the Great Recession and recent housing crisis, the racial wealth gap is at its largest since the Great Depression. Several years ago, we started The Two Hundred Project. Our plan was to organize 100 community leaders across the state with a series of mini-conferences aimed at developing and understanding of the obstacles to homeownership. Today, The Two Hundred represents a coalition of over 800 community leaders, which now includes YIMBYs, millennials, and students. And our plan now is to organize -- to include student -- senior citizens. The Two Hundred Project is led by a leadership council composed of esteemed community leaders that have a long history of defending the civil rights of marginalized communities. Founding members were the Honorable Cruz Reynoso, the first Latino State Supreme Court Justice; Joe Coto a former State Assemblyman, and former Chair of the Latino Caucus; John Gamboa who has been a champion of civil rights for many

years; and Herman Gallegos who was a founding founder of the National Council of La Raza with over 50 years of activism. The Council includes leaders from throughout the State, and is commit -- who are committed to social equity. As you know, and have heard, The Two Hundred sued CARB because we believe the scoping plan will disproportionately negatively impact communities of color. What you may not know is that The Two Hundred is deeply concerned about the future. It is not naive about GHG and the effect on global warming. Like GHG scientists, The Two Hundred relies on facts. California is now a majority minority State. And the future economy will rely on people of color. They are our seed corn. They will pay the taxes and fund entitlements for retiring Baby Boomers. Latinos are the majority of California's K through 12 students. Ninety-five percent of California Latino youth under 18 are native born. Latino youth under 20 make up more than half of the California's population under the age of 200. The Two Hundred understands that public policy cannot be made in a vacuum. Past public policies like redlining denied people of color the opportunity to buy a home and accumulate wealth. This is at the core of today's racial wealth gap. Between 1934 and 1962 the federal government issued $120 billion in FHA and VA loans, of which 98 percent went to white families, and only two percent went to African-American and other minorities. This policy created the largest middle class in the world, and a legacy of wealth to pass on. It is also institutionalized housing segregation ghettos, which results in negative health outcomes, health levels of -- high levels of stress, diabetes, high blood pressure and lower life expectancies, inferior school systems, higher crime rates. Home ownership is tried and true path to success and well-being in society. Policies that increase the cost of housing like net zero and prices that increase commute costs. Policies to reduce GHG must not -- must equitably spread the burden and not further penalize those that have been historically marginalized. Thank you. (CDCCB)

Comment:
I came here today to voice my opposition for the proposed price ceiling that is part of the Board’s proposal. Let me clarify. I understand that there might be been a little bit of misconception. I appreciate the clarification, but I came all the way from Riverside County, so I'm still going to speak. We're a family-owned and -operated business that works with concrete cutting and drilling projects that range from small residential to large capital improvement projects, such as LAX. We have 23 employees. As a small business in Riverside County, we run a tight budget. I need as much certainty as possible with outside costs, including energy and fuel. Our energy costs are some of the highest in the nation. By increasing energy and fuel costs to businesses, we will have to look for ways to pass out -- pass on added expenses, either by raising our prices or reduce or workforce. In 2008, I almost had to close the doors because diesel was $5.49 a gallon. I don't want to get anywhere near that anymore. We all want cleaner air, I agree. And I'm doing my part, because ever since this started, I have had to upgrade my equipment from tier 2 to tier 3, tier 3 flex to now tier 4, and tier 4 final, et cetera. I -- these machines now have to have more filters and sensors to burn cleaner, and they're less reliable. Even the manufacturers can't keep up with giving us what we need. So now I have to have three machines instead of two machines, so I can have backups. So we're already being impacted. And we appreciate what the Board is doing for a better environment, but I would say at whose expense? I respectfully ask for you to reevaluate

your proposal. We need a price ceiling that does not punish California's small businesses and consumers. (PGCS1)

Comment:
I'd like to echo the remarks made earlier today by our fellow industry partners and representatives and those to come, but would like to emphasize the concern on the price ceiling. We are concerned that the Legislature's direction is being ignored, and that the proposed program will drastically increase the cost of consumer goods to Californians. As presented, we believe that the proposed price ceiling would fail entirely at its statutory purpose of controlling costs that are placed on households, businesses, and the overall economy. Agriculture and its related industries, including manufacturing and processing, employs tens of thousands of Californians who depend on agriculture for their jobs and wages, whether they work on the farm, in its supply chain, or at the neighborhood grocer. Higher costs will force many to make difficult decisions for their businesses and employees, as they try to find ways to continue to push forward to provide food not only to California, but to the nation and the world. Higher costs already affect our ability to compete nationally, and directly impact hiring and wage decisions made for employees. Higher energy costs that will result from this price ceiling will only make this problem worse. Please keep in mind that these additional operational expenses are all factored into the prices everyone pays at the grocery stores, restaurants, and anywhere else they buy California grown food. If you increase one of these costs, you increase the price of food. If the Board decides on a path that does not contain -- that does not contain costs, it would make it more expensive to grow, ship, process, and store food impacting millions with higher food prices. This would especially hurt low income families for whom healthy groceries are a major expense. We believe that a balance that reduces greenhouse gas emissions while containing costs is a way to protect this industry and create more sustainable environment. Our members are stewards of the land who do everything to not only be efficient but sustainable. (MCFB)

Comment:
Our farmers received incentive funding for cap and trade that allowed them to remove old tractors and trucks, and replace them with equipment that produce significantly less emissions. However, we worry that if projections aren't correct, and the amount reaches the price ceiling, it would decrease the purchases of credit, which would reduce the amount of incentive funding, and prevent farmers from upgrading their equipment. Our farms pay some of the highest utility rates in the country. And when you factor in the cost of fuel, many of our small forms will simply not be able to stay in business. Besides the potential loss of jobs, farmer workers travel longer distances un less fuel efficient vehicles to work. Any increase in utilities or fuel is less money for family expenses. Agricultural workers, farmers, all suffer with increased energy costs. On behalf of the Nisei Farmers League, we urge this Board to adopt a price ceiling consistent with the bipartisan agreement contained in AB 398. Thank you for your time and consideration. (NISEI1)

Comment:
I'm here today because the proposal before you today will harm my community. Many Central Valley communities have been left behind in the economic recovery. Our

residents and farmers still struggle with the effects of the recession. Our community wants better air quality, but we want to make sure that the costs do not dramatically increase and cost and even greater hardship on our residents. I want to repeat that last statement, because it's important. Please do not pass a price ceiling that will increase cost of credits to the point where no one can afford to purchase them, therefore closing businesses, increased job loss, and energy costs. This type of help is not what my community needs or wants. Let's work together to fix our air and environment, but in a way that it doesn't hurt our community in the process. (ORANGECOVE2)

Comment:
All the statistic, all the data that is required, I'm sure the Board would -- can get all of that. But I want you to just hear from the shepherd's heart, or the heart of a faith leader how important it is that our concerns be considered. We hope that you would consider all that the inner-city, and the downtrodden, and disenfranchised go through on a day-to-day basis. It's important to us, as we lead this charge -- we're in the trenches, we're on the front lines, leading a people that feels like they're disconnected, disenfranchised. There's almost no hope. And we're there on daily basis just leading that charge. One of the programs -- one of the programs that our organization provide is a food program. We have a homeless shelter, but there is a food pantry that we have. You should see the lines that come to our church, to our local edifice, you know, just reaching out to get whatever resources that they can get. It would touch your heart. It would touch your heart. As I said, we're just a few blocks away from, you know, skid row downtown Los Angeles. You know, as a male guy, you figure you have to put on your hard and your boots and stuff to walk down there in that area. I do not know if the Board could stand walking down in that degradated area. It's rough. It's tough. It's people living like you wouldn't believe. I'm sure you've seen the picture. I know you have the data. But, you know, I'm asking the Board at this time -- I'm asking the Board at this time -- I'm pleading -- I'm pleading our case. We're asking that the Board would take into consideration all that it needs. Every is an issue. The gas is an issue. The energy is an issue. The housing is an issue. You know, the resources that always, you know, seems like the good old boys get the contracts that sort of thing. Would you consider us in South Los Angeles, would you consider us the people that are on skid row, would you consider the inner-city kids that have the programs that we need. You know, they're not in the suburban areas where, you know, they seem to have these things that -- at their finger tips. But we're finding -- I'm hoping that someone that would stand with me that would champion for these people, for these disenfranchised people that they will come and help us. (VISIONS)

Comment:
When the legislature extended cap and trade last year, it specifically tasked the Air Resources Board with making sure costs for carbon emission allowances would not become so high it would hurt businesses and consumers. To do -- to do that, ARB must set a ceiling price for the carbon allowances. However, the recommendation before your Board sets the ceiling price so high, it will likely result in skyrocketing costs for carbon allowances. When businesses have to pay more, those costs are passed on to consumers, and some businesses will be driven out of California. Californians already pay an average $0.85 more per gallon of gas than residents of other states. The

legislature increased per gallon costs by another $0.12 last year. And costs are expected to increase another $0.36 to $0.44 per gallon beyond that under ARB's enhanced Low Carbon Fuel Standard. California's families simply cannot afford more spikes. Overly high price ceilings would result in exactly what the legislature wanted to avoid in passing AB 398. BizFed Central Valley is asking the Board to reconsider the carbon allowance price ceiling at a more realistic level. (BIZFED)

Comment:
And a lot of those farms and ranches are price takers. We're highly dependent on export markets for many of our fresh grown products including locally in Tulare County a lot of citrus and grapes. We compete locally, nationally, and globally with farms that are able to produce at much lower regulatory costs than those of us based here in California. And farms are especially vulnerable to rising energy costs. The cost of doing business in California is already alarmingly high. Our operational costs must also be passed along the entire food chain that you represent in the grocery store, the wholesaler, the supplier, and the distributor. In Tulare County, the agricultural industry directly supports approximately 25 percent of our employment base, second only to government employment. We are directly impacted anytime prices rise for food, and certainly impacting the jobs that are available in our local economy. Indirectly, our multiplier effect in our community is additionally three more dollars for every dollar produced within agriculture. And when drought and water impacts are crippling our communities, it is difficult to leverage all of those additional costs on the backs of all of our other production inputs. In addition to the cost that we see directly involving shipping, transportation, supply chain management, and many other costs, we also have a rather disadvantaged population in many respects. About 25 percent of our county's population relies upon the food link pantry system in Tulare County to supplement their food insecurity issues. We know that imposing this price ceiling may largely impact and hurt some of our lowest income families, and families directly employed in agricultural positions. We know that passing on more energy and fuel costs disproportionately impacts those low-income communities, particularly in farm communities like Tulare County. Decisions that you will make will impact jobs directly in agriculture and many outside indirect jobs, and, in general, have a significant impact on families in Tulare County and the central San Joaquin Valley. For these reasons, I would ask you to respectfully reconsider the price ceiling. We oppose the current proposal and would ask that you seek to find a more reasonable approach to this plan. (TCFB)

Comment:
I do have the blessing and the burden of dealing with the least fortunate in our communities. As one of my colleagues just spoke, one of my programs is I do feed homeless, as well as give them a shower. And to experience -- to come out and actually experience the gratefulness that meal and that shower. But some of those same folks even drive off, drive off with -- they have to borrow gas money that I give out of my own -- out of my pocket. When we do it to the least, I'm unapologetically a Christian. The Bible tell me -- when we do it to Christ say we're doing it unto him. I -- as the Supervisor made a statement as far as he don't see -- where he doesn't see the outrage or -- a lot of times you don't see the outrage, because there's a disconnect. Mainstream knows who don't get hurt, and don't -- but I'm here to offer not as a way of -- I believe in -- by

omission of permission, that we all are responsible for the conditions of our community. So as a way of kind of bridging the gap, I offer my services to any of you up here who want to connect or -- I can get you -- you want to see outrage, I can get you -- I can set up those town halls where you'll get that outrage. But at the end of the day, we need to work together. And unlike the administration at the top now, we want to be able to build bridges and not walls. (GLBC)

Comment:
Today, I want to talk to you about not raising the electric/gas prices. One of the reasons being is because the people that move here are the same people that are leaving here, and we can't even hold the people that are moving here due to the increase in inflation. So when we -- if you raise the gas prices, that's going to make the economy in California less sustainable. So we have to do what's good for the greater good of the community. (NAN)

Comment:
I wanted to talk about -- a little bit about agriculture briefly in our region. It's a $2.5 billion industry in 2017 numbers. So that was what our farm gate value was. That isn't the value of the produce when it hits the grocery store. That's the farm gate value. And when you see an agricultural industry we're dependent on so many things. We're depending on water. We're depending on the land obviously. We're depending on a whole host of other things, inputs, and obviously energy. We're extremely dependent on energy and the cost of energy, and how that impacts us. And that's already been covered. But I want to talk about a couple different commodities. Our top four commodities are dairy, walnuts, almonds and wine grapes in some order every year. They kind of bounce back and forth depending on prices and yields on that given year. Let's talk about briefly about dairy. You've had dairy interests speak already today. In the last 10 years we've seen exactly one dairy expand in our county. One. We've seen no new applications for no -- there's not been one new application for a dairy. It requires a use permit in our county. Not one new dairy has come to our county, and only one is expanding. We need to talk about what's going on in the industry, because I think it's getting lost here. The problem that we're seeing is that there's -- nobody is looking at the cumulative impacts. I'm in a meeting this week in this room. Last week, I was across the hall. I could be down in Fresno at another one at this very moment. I mean, there's always another meeting, and nobody is looking at the cumulative impacts to agriculture of all of these regulations and costs. And as you look at that, dairy is the first one I wanted to mention. Asparagus. We were the number one asparagus growing county in the State. At one point, we had over 60,000 of asparagus. We have less than 1,000. Cumulative impact of regulations like this are the cause of that. Less than 1,000 acres. Our last big processor just went out business. Has closed doors. We have some small ones left, but it's very small at this point. That was a significant industry for us and it's gone. Old Vine Zinfandel. How many of you have seen bottles of Old Vine Zinfandel from Lodi, or the foothills, or whatever. These vines lasted more than 100 years, and they continued to produce wonderful wines. And they're now being pulled out. It's kind of a ironic that they could make it through prohibition, but they can't live in California's regulatory climate anymore. Made it through prohibition, but can't stand -- or can't make it through California. Walnuts. One of the fastest growing commodities in our county the

last probably 10 years, in terms of acreage. A lot of people pulling old vine and planting walnuts and almonds, to be honest with you. But you know where our newest processor is? Sparks, Nevada. Cost of doing business in California. So now our walnuts being processed, being taken, shipped, and taken to Sparks where the rest of that economic activity is taking place. So we'd ask you to look at these things. You know, I said our crop report wag 2.5 million[SIC]. It's not going to be 2.5 million[SIC] in 2018. I can already tell you that. The numbers -- farm prices are depressed right now. The farm economy is depressed right now. Rules like this certainly are not helping. (SJFB)

Comment:
As a forest offset project participant, we're encouraged and thankful that ARB is looking and taking this opportunity to make improvements in that forest offset program. Sierra Pacific believes that the most beneficial regulatory proposal that you'll be evaluating during this process for the forest offset program comes from the California Forest Carbon Coalition, and their proposals -- their regulatory proposal for environmental health and safety regulation invalidations under 95973(b)(1) in Appendix E. Currently, the environmental health and safety invalidation regulations imposes significant negative economic penalties for any environmental health and safety violation, regardless of whether or not it impacts the environmental integrity of the project, or even if the violation occurs on site. So this creates a lot of negative economic uncertainty relative to economic risk of making further investments in the Forest Protocol Program. The proposal by the California Forest Carbon Coalition solves much of those issues. They -- in the proposal, it ensures that all offset project operators must comply with all environmental health and safety regulations. It provides -- it incentivizes the identification and cessation of offending activities, and it provides a clear and equitable means of developing the penalty for any environmental health and safety violation. So in doing so, it removes that negative economic risk and should greatly increase the participation for further offset project investments. So for those reasons, I'd hope that you'd support those recommendations from the California Forest Carbon Coalition for the environmental health and safety invalidation regulation changes to 95973(b)(1) and appendix E. (SPI)

Comment:
We'd like to express our strong support for the Cap-and-Trade Program, and in particular for the offset program, which is the most rigorous and robust offset program in the world. We appreciate your technical amendments on materiality and regulate -- regulatory compliance, and encourage you to continue improvements related to program implementation, efficiency, and transparency. We work with a range of landowners from Native American tribes to private forestland owners. And we've seen first hand how the offset program has provided a host of benefits, in addition to greenhouse gas reductions, from forest health improvements to economic opportunities in rural communities. So we want to thank you for your efforts on this program and encourage you to further strengthen the program going forward. (NEWFORESTS1)

Comment:
Forest offsets and offsets generally lead to real additional benefits, both for the environment and local communities. The second thing is I want to thank you and your

staff for the good and hard work that you do. We know it's a tough -- a tought job, and we really feel like we've been treated fairly. And the third, and you've heard from our colleagues from the coalition, we hope you'll take a serious look at our proposed suggestions on how to improve the program and the offset project opportunities in a way that we think both achieve the pub -- underlying public benefit and make it usable for forest project operators. (USALREDWOOD)

Comment:
California is a great place to grow tomatoes. The combination of warm dry summers, fertile soil, and available water make it one of only a few regions worldwide where this is true. Add to that farm transportation and processing infrastructure, plus the knowledge base in our university seed companies and technology industries, and you have the perfect mix. Farmers that are able to grow a huge quantity of tomatoes and pick them at the peak of ripeness and flavor. Processors take this bounty and turn it into tomato paste, diced tomatoes, and other products that allow so many worldwide to enjoy salsa, spaghetti sauce, ketchup, and let's not forget tomato soup. Processes in California have been working for decades to improve and optimize their operations, modifying processes, and modernizing equipment to maximize efficiency. Tomato processors here are world class and will continue to innovate into the future. But the processes that evaporate water to create tomato paste, along with the cooking and sterilization require large quantities of heat provided by burning natural gas to create steam. These processes are time-tested, safe, and ensure the can of tomato soup can be enjoyed and taste just as good on a cold winter night as a warm summer evening. In order to continue to supply products to all our customers, it is vital that we keep prices under control. Things like the rising cost raw materials for packaging, transportation, and labor are challenges we constantly work to overcome, so that these customers can continue to enjoy a safe, nutritious, and affordable food. Our industry is in the forefront of the effort to deliver delicious meals from California's farm to forks around the world. The Cap-and-Trade Program puts the cost on emissions to carbon to incentivize the technologies that will lead to a low-carbon future, but that transition will be difficult. Cities, states, and countries around the world are watching to see if California efforts to reduce GHGs can be achieved while still allowing our economy to prosper, and our way of life to endure. The stakes are incredibly high. And we must succeed to serve as an example to those who would follow, otherwise those efforts will be in vain. California cannot solve this problem alone. Some transitions to a cleaner future will be made more easily than others, and some sectors will be subject to more pressures along the way from competitors and areas that don't have the same commitment to GHG reduction. It is critical that those managing the program recognize the fact, and work to ensure the process is smooth and orderly as possible. That is why we believe it is important to extend the industry assistance levels for the third compliance period. That provides a buffer for our industry from international competitive pressures, and some areas where leakage could result in actually higher emissions. The Governor and legislature have now begun to implement programs with guidance and collaboration from food processors and State agencies to provide the funding to make our industry more efficient. And we're looking forward to a cleaner energy future. (CAMPBELL)

Comment:
The topic you heard about this morning on what was characterized as legacy generators. Our contract, we have I believe one of the last two remaining contracts that some believe are legacy generators. We do not believe ours qualifies for that. Just wanted to let the Board that we continue to negotiate. Met with our counterparty yesterday and are willing to continue to negotiate. At the same time, what the gentleman from Procter and Gamble said this morning I think really hit home for me, which is the more the Board continues to give assistance to counterparties, the less likely those counterparties are to reach agreement. We can't outbid you. Essentially, that's what it comes down to. (PG&E2)

Comment:
In my testimony, I'd like to highlight some positive aspects of the draft package before you. And I'd also like to highlight a couple of areas where additional work needs to be done. So first, the positives. ARB staff has done really good work in analyzing the need to extend the second compliance period industry assistance factor to the third compliance period. Since 2005, CARBOB production capacity has been added in Asia and East Africa, increasingly demonstrating that California's refining sector is trade exposed. Extension of second compliance period industry assistance factors can help mitigate some of that trade exposure. We support CARB staff's proposal on this issue.

Next, CARB staff has correctly found that the state's climate initiatives have collectively achieved more emission reductions than forecasted. Rather than focusing on the positive news that California is doing better than expected in achieving its climate goals, a few stakeholders have tried to make the case that because of this overperformance, allowances should be removed from the market. This assertion is not well founded. The suggested remedies would actually have the potential to disrupt the stable market that CARB has worked diligently to develop. Debates about oversupply inevitably involve debates about allowance banking, since the perceived concern about oversupply arises from a fear that allowances banking allows entities to avoid -- avoid reducing emissions. Allowance banking, however, promotes early investment in emission abatement measures, and plays an important cost containment role without compromising environmental integrity. This is something to be celebrated, not punished. As such, we support CARB staff's proposal on this issue.

Now, I'd like to turn to an area where more work is needed. Specifically, the pricing ceiling and speed bump placement. AB 398 provided six criteria that should be considered when developing the pricing ceiling and speed bumps. They're all important. WSPA believes that using the social cost of carbon can be an important starting point, but that ultimately consideration for linkage, leakage, and household impacts should persuade the Board to set a lower prices ceiling. We feel the current proposed price ceiling and placement of speed bumps will not provide adequate cost containment. And we believe more consideration needs to be given to the potential impact that high allowance prices can have on consumers and the economy. (WSPA1)

Comment:
First, I simply want to echo the comments by several industry folks regarding the excellent work that's been done on offsets on oversupply, and the third compliance period. The package represents a lot of good work and thought in those areas.

We are concerned, however, on a few key provisions. The Board has the opportunity to structure a program that is environmentally sound, and also least cost to Californians and the companies operating here. AB 398 provides substantial authority to the Board to contain costs. But setting cost-containment mechanisms so high that they will not be triggered is the same as having no cost containment at all. Business faces a much steeper challenge between 2020 and 2030, a steeper cap, declining industry assistance. We urge that you consider a lower price ceiling and set the cost containment points at one-third and two-thirds between the floor and ceiling. The cost containment points are needed to reduce volatility. AB 398 gives additional responsibility to an economic Committee to study the market when the first speed bum is triggered. The higher the first speed bump, the less effective economic review will be. California's desire to be a world leader is also impacted. By adopting various high priced ceiling -- very high ceiling prices, California signals to potential partners that high prices are acceptable. Higher ceiling prices also impact how industry invests in California. Economic leakage leads to emissions leakage, which defeats California's goals. We wish that you would plan of the unexpected and recognize that much better information will exist after California has more years of a much steeper cap under its built. (CHEVRON)

Comment:
I plan to be brief today, but wanted to let you know that Panoche agrees to continue to work with our utility counterparty in good faith to try to find a contract solution. One of the important goals of those negotiations is to ensure a carbon price signal is accurately reflected in the energy price. Having said that, we're here to ask you for help. Our simple request is that the 15-day package includes transition assistance for the third compliance period. Secondly, that historically it's been demonstrated to be effective for Board members to participate in the discussions between counterparties. We request that in the continued negotiations that a Board member participate to help move this forward. Then last, if in the -- if in six months a resolution hasn't occurred, that in the next rulemaking relief is provided by taking allowances from our counterparty to cover emissions. I know that both the Board and staff are eager to get beyond this. And I just want to thank you for your support. (PANOCHE1)

Comment:
I think we've heard a lot today about some of the political concerns and some of the structural concerns of this program moving forward. CCEEB, in general, supports the structural changes that are being made to this program as we -- as we proceed into the 2020 area -- or the post-2020 program for SB 32 compliance. We support the staff's recommendations and urge the Board to adopt them in regards to the allocations to the third compliance period and other things that will keep this market kind of even and steady, which is really the goal of markets and what business is looking for in most regulations. We want to see that steady and even consistent hand from the regulator to

allow us to enter into this market and make the investments that we need to make between now and 2030 in order to achieve California's goals. That can't be done by disrupting a third compliance period to achieve a three-year increase in revenues, only to bring us back down in 2021. Those disruptions are not necessarily built out of having this even pace and good steadiness, as much as they are built to kind of punish businesses that some folks don't see acceptable in this state anymore, as they're trying to make this investment. And it sends the wrong signal as executives and stakeholders and shareholders are making investment decisions for the California companies. And so to that end, we urge the Board to kind of keep the steady pace, maintain the CP3 -- the third compliance period industrial assistance factors as it evens us down over into the next phase of the program, as adopted by 398. It's that even and steady transition that's needed in order to ensure that the investment is made here and not made elsewhere. Additionally, we'd like to support banking, as this allows businesses to make those early investments. It also allows them to kind of jump in early, while they're doing the physical infrastructure needs that they have to do at their facilities. As you guys know, we have a lot of regulations and laws that extend beyond this building in terms of permitting. Those permitting things can't be made overnight. You know, we know that for a large facility, it can take sometimes seven years to get the permits. And that -- we're going to see that in the later years of this program, especially when the markets tighten up. And then to that end, we do have the political concern. And I think the biggest political concern that you guys saw here is the price ceiling. We do have concerns about cost. Wages haven't grown substantially in California or the rest of the United States over the last 20 years. They're not keeping up with inflation. And to that end, the public's ability to pay over time is going to be tightened. We've seen how this fight has ended up in other infrastructure fights. You know, and those of you at the local level know that -- what it takes to get those bonds passed. We're continuing to place an additional burden on the public to pay costs to fund the programs that we need. And in doing so, we need to balance that. And so it is a political decision for this Board to make, but we want to make everyone aware that it has to be considered that this is going to provide a burden. And we have to be willing to accept that burden, whether we hit that ceiling or not. It's the -- that's the signal that's going to be sent. So we urge the Board to move forward with this process and adopt this rule. (CCEEB)

Comment:
We are opposed to the price ceiling for reasons that have already been stated and articulated far better than I ever can. Thank you very much. (APC)

Comment:
I just want to reiterate we really appreciate staff's great work in taking the many goals in AB 398 and rolling them into regulation. We supported many of staff's recommendations in our written comments.

So I'll be really brief and limit my comments to today's favorite topic of cost containment. I do think there was really good discussion amongst the Board earlier today on the difference between the actual allowance market price and the price ceiling. I think that was good that that got out and was discussed briefly. And towards that point, we do agree with staff's conclusions that prices may stay below the ceiling closer to the floor

for the near term and into the start of the next decade. So I thought that was a good discussion point. However, we do believe via our own modeling and via some external modeling, assessment of other models, we do think that there is at least a probability that prices in the next decade could go up to the floor -- up to the ceiling. We think there's a -- there's a probability there -- a statistical probability. So -- so our ask is simple. I'll just conclude. Our ask is simple and it's consistent with, I think, what you heard from WSPA earlier. Please keep the door open as we go forward on price ceiling. I think that it is important to the state's economy. Consider I think perhaps bifurcating that issue. Often separate and future rulemaking could be helpful. And even more specifically, please look at the five percent escalator on the price ceiling. When you tack on five percent escalation, plus what could be two and a half percent inflation, you get seven and a half percent escalation. Prices really would move up quickly. So please look at that specifically. (PHILLIPS66)

Comment**:**
We write to provide the comments of Indigenous Peoples Reducing Emissions ("IPRE") on several issues relating to offsets and the proposed implementation of AB 398's quantitative limit on the use of offsets that "no more than one-half may be sourced from projects that do not provide direct environmental benefits in the state" ("DEBS"). We incorporate by reference IPRE's comment letters dated March 19, 2018 and May 18, 2018 that were submitted to CARB during the "Discussion Draft" phase that preceded the current 45-day rulemaking; copies of those letters ae attached hereto as Exhibits A and B.

1. **Indigenous Peoples Reducing Emissions ("IPRE")**

IPRE commends CARB for its leadership in combatting climate change. Its Cap-and-Trade Program serves as an important national and international model. The offsets program enables this model to be more than an inspiration: it provides a means for communities outside of the state – including EJ communities – to partner with California in the global fight against climate change. By creating incentives for others to partner with California, CARB's offset program has been a critical component of California's global leadership on climate issues. [The commenter included this text twice, once in their main comment and once in their Exhibit B.] (IPRE)

2. The Proposed Definition of DEBS Requires that a Balance be Struck Between Being Superfluous and Unconstitutional

The proposed definition of DEBS in Section 95802(a) simply adopts the language of AB 398, and thus there can be no question that CARB is adhering to the Legislature's directive. It provides: "'Direct environmental benefits in the State' refers to the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state." IPRE supports this approach, though that does not end the analysis because the statutory language is ambiguous.

As the U.S. Supreme Court held in *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497, 532 (2007), greenhouse gases ("GHGs") are pollutants. It is a maxim of the science of climate change mitigation that the reduction or avoidance of GHG emissions anywhere provides a benefit everywhere. This is reflected in the title of AB 32: the *Global* Warming Solutions Act. Given this, all offset projects provide DEBS regardless of whether in or outside of California. There is nothing in the legislative history that sheds light on what the Legislature intended with this language. None of the legislative reports on AB 398 address what the term "pollutant" in the DEBS provision means,[26] and California courts generally do not give credence to *post hoc* statements by individual legislators as to what the Legislature meant.

Faced with this, many, including the Independent Emissions Market Advisory Committee ("IEMAC"), have "assume[d]" that the DEBS provision "refers to environmental benefits that occur in addition to those impacts that are traceable to reduced or avoided GHG emissions; otherwise, the language of the statute would seem superfluous." 2018 Annual Report of the IEMAC (Oct. 22, 2018) at 46. The IEMAC relies on "a relatively standard canon of statutory construction that words in a statute are to be given effect rather than to have no consequence." *Id.*

Another standard of canon of statutory construction is that ambiguous provisions are not to be given meaning that would be unconstitutional. As we discussed in our March 19 comment letter, see Exhibit A, the DEBS provision must be construed narrowly lest it fall afoul of the constitutional law doctrine known as the Dorman Commerce Clause (the "DCC"). Under the DCC doctrine, a state law is invalid if it discriminates against or places an undue burden upon interstate commerce. In that letter we reviewed the recent Circuit decisions construing the DCC doctrine in the context of challenges to state climate change programs and showed that the DEBS requirement must be construed carefully lest a court rule it to be unconstitutional.[27]

Still another canon of statutory construction is that the words are to be given their plain meaning. A close reading of the DEBS provision reveals that it is not appropriate to rely upon an assumption that the Legislature intended to exclude GHGs from both uses of the term "pollutant" in the provision. In sum, the DEBS provision treats air pollutants differently than water pollutants. The first part refers to "the reduction or avoidance of emissions of any air pollutant in the state." The object of the phrase is "emissions," which is qualified by "air pollutant" and "in the state." As it refers to emissions in the

---

[26] The only one that could be construed to have done so is the July 17, 2017 Assembly Floor Analysis, which states at pages 7-8: "While ARB has justified the reliance on compliance offsets as an opportunity for low-cost reductions from outside the cap, others have questioned how offsets, particularly from sources outside the state, might meet AB 32's (Núñez), Chapter 488, Statutes of 2006, requirements or otherwise produce benefits in California."

[27] The analysis in that letter has not changed in light of the Ninth Circuit's subsequent decision in *Am. Fuel & Petrochemical Manufacturers v. O'Keefe*, 903 F.3d 903 (9th Cir. 2018). It addressed a DCC challenge to Oregon's low carbon fuel program that is substantially the same as California's, and the Court followed its earlier decision in *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070 (9th Cir. 2013), a case that we discussed in our letter.

state, it may be defensible to assume that the Legislature meant to exclude GHGs from the types of pollutants being emitted.

The second part refers to "the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state." This phrase lacks the geographic limitation that applies to air pollutants. It does not refer to the discharge of any water pollutants in the state. The object of the phrase is "pollutant" – i.e., the thing rather than the action – and it is qualified by much broader language than those qualifying "emission" in the first part. "Could have an adverse impact" is clearly subject to later determinations, and "waters of the state" is clearly broader than emissions that occur "in the state." (This is made plain if one considers the large body of case law under the federal Clean Water Act construing the analogous term "waters of the United States.") Certainly, the Legislature takes a broad view as to what constitutes "waters of the state, as is reflected in the very first provision of AB 32: "The potential adverse impacts of global warming include . . . a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, [and] damage to marine ecosystems and the natural environment." Health & Safety Code Section 38501(a).[28]

Given both the much broader language used in the second part of the DEBS provision and the danger of falling afoul of the Dormant Commerce Clause if one too narrowly construes just how direct the environmental benefits in the state must be, it would be inappropriate and quite possibly unconstitutional to assume that the Legislature meant to exclude GHGs from the meaning of "any pollutant that could have an adverse impact on waters of the state." Happily, CARB has given meaning to this distinction in its crafting of Section 95989, the proposed regulation implementing the DEBS provision of AB 398.

3. Section 95989(b)'s Distinction Between "Emissions of Any Air Pollutant in the State" and "Any Pollutant that Could Have an Adverse Impact on Waters of the State" Should be Retained and Clarified

First, we wish to state that IPRE welcomes the proposal in Section 95989 to establish a process by which offset projects can demonstrate that they provide DEBS. We appreciate the recognition that projects outside of California can and do provide direct environmental benefits in the State. The process outlined in subsection (b) of Section 95989 reflects a commitment to science-based approach to this process, which will help to ensure the integrity of the program.

---

[28] The State has followed through on this broad understanding. *See* the State Water Resources Control Board's Resolution 2017-0012, Comprehensive Response to Climate Change, (available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2017/rs2017_0012.pdf), Resolution No. 10 of which directs the Regional Boards to identify actions to address the recommendations of the West Coast Ocean Acidification and Hypoxia Science Panel (available at http://westcoastoah.org/wp-content/uploads/2016/04/OAH-Panel-Key-Findings-Recommendations-and-Actions-4.4.16-FINAL.pdf).

Section 95989(b) expressly provides that the benefit of "the reduction or avoidance of emissions of any air pollutant" must be of one "that is not credited pursuant to the applicable Compliance Offset Protocol in the State" – *i.e.,* that it be something other than a GHG. Section 95989(b) does not contain a parallel exclusion of GHGs from the benefit provided by "the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state." As discussed above, this is consistent with the plain language of the DEBS provision, and IPRE supports it.

Nonetheless, we agree with the recommendation of the IEMAC Report that the language of Section 95989(b) should be clarified to make this distinction clear. This clarification is needed because subsections (1)-(3) of Section 95989(b), which specify the kinds of scientific information that can be relied upon to make the requisite showing, elides the distinction. Each subsection inconsistently and inappropriately collapses the difference between air and water pollutants to simply refer to the "reduction or avoidance of any pollutant in the State." It's more concise, but unfortunately creates ambiguity. We urge the Board to make it clear that if a sufficient scientific showing is made that an out-of-state offset project that reduces or avoids any pollutant – including any GHG – that could have an adverse impact on waters of the state, then it shall be determined to provide DEBS. Doing so will help to ensure the regulation's consistency with the statute and reduce the risk of a judicial finding that it is unconstitutional.

We also appreciate that Section 95989(b) provides that the requisite scientific showing can be made for an "*offset project type*." We understand the inclusion of this term to mean that CARB will establish a process that will facilitate replicability, such that a determination that a particular project type provides DEBS could later be applied to other projects of the same type. This is critical to provide the regulatory certainty that is necessary to ensure investments in offset projects, and also to provide administrative efficiency so that CARB's processes do not become over-burdened and unduly delayed. We ask that this too be confirmed and clarified.

4. Section 95989(d) Improperly Construes the DEBS Requirement as Applying to Offsets Generated Prior to 2021

Section 95989(d) provides that out-of-state offset projects that have already been issued ARB offset credits can be deemed to provide DEBS by making the same showing as provided in subsection (b) for future offset projects. This effectively implements the DEBS provision as applying to all existing offsets, even though AB 398's limitation on the use of offsets applies only after 2021. This is an incorrect reading of the statutory language and prejudicial to out-of-state offset projects such that it may well run afoul of the constitution. For the reasons detailed in our May 18 comment letter, see Exhibit B, the DEBS requirement of AB 398 does not apply to offsets issued prior to 2021, and therefore Section 95989(d) should be amended to provide that all offsets issued prior to December 31, 2020 can be used for compliance purposes after that date.

The Initial Statement of Reasons states only that the proposed regulation "does not result in a retroactive application of a statutory mandate, but implementation,

prospectively, of the legislative requirement." ISOR at 51-52. This is not correct. As detailed in our May 18 letter, the plain language of that portion of AB 398 that includes the DEBS provision directs CARB to develop regulations applicable only to the specified period post-2020.

While the point of regulation for the DEBS usage limitation is the surrendering of offsets post-2020, there is no question that it nonetheless impacts offsets generated pre-2021. Offsets are compliance instruments issued for the sole purpose of meeting compliance obligations under the Cap-and-Trade Program. If that sole usage is limited, offsets are impacted. Thus, though the language of AB 398 does not address pre-2021 offsets, if the DEBS provision is applied to them it likely will diminish their value.[29] "A statute is retroactive if it affects rights, obligations, acts, transactions and conditions performed or existing prior to adoption of the statute and substantially changes the legal effect of those past events." *In re Marriage of Reuling*, 23 Cal.App.4th 1428, 1439 (1994)(citations omitted).

We refer you to our May 18 letter for a detailed discussion of this legal issue. In sum, for a statute that has a retroactive impact to be upheld it must be shown both (a) that the Legislature intended the statute to be retroactive, *and* (b) that the retroactive law is not unconstitutional. As we showed, there is nothing in the legislative history that indicates that the Legislature intended the DEBS provision to have retroactive impact on offsets generated prior to 2021. And if that intent were read into the statute, then a court likely would deem it to be unconstitutional because it would deprive the holders of those offsets of a vested right without due process.

5. Conclusion

We appreciate the opportunity to provide these comments. In general, we support the proposed amendments, including most of the provisions relating to offsets. However, it is critical that Section 95989(b) be clarified to confirm the distinction between air and water pollutants in the process for determining whether an out-of-state project provides DEBS, and also that that process is replicable. In addition [to comments stated elsewhere], Section 95989(d) must be changed such that AB 398 is not improperly given retroactive effect.

IPRE and its members are committed to continuing to partner with the State in its efforts to combat climate change – in particular those that are Alaska Native entities. Alaska is currently the state most effected by climate change. Sea level rise and ice flow change is already requiring communities to be moved, melting permafrost, melting glaciers, and many other effects. Alaska and California both border on the Pacific Ocean and are both contending with the effects of ocean acidification and hypoxia caused by climate

[29] It has been suggested that those that invested in offset projects anticipated this because the Cap-and-Trade Program was due to sunset after 2020. That is not correct. Prior to the adoption of AB 398 CARB maintained that it had the authority to continue the Program post-2020. Those that invested in offset projects reasonably relied on CARB's statements and had a reasonable expectation that the Program would continue post-2020.

change, as discussed in footnote [28] above. The clarifications and changes suggested set forth here will greatly enable IPRE's members to continue to partner with California in these crucial efforts to combat climate change – and they also will greatly improve the ability of the State to partner with others as well. While the offsets program is a small part of California's efforts to reduce GHG emissions, it is a critical component. It is the primary means by which it incentivizes those outside the State to join with it in the fight to combat climate change.

Attachment A

We write to provide the comments of Indigenous Peoples Reducing Emissions ("IPRE") on that portion of the Discussion Draft that outlines CARB's proposed approach to implementing AB 398's quantitative limit on the use of offsets that "no more than one-half may be sourced from projects that do not provide direct environmental benefits in the state" ("DEBS"). AB 398 defines DEBS as "the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state."

IPRE recognizes and appreciates the global leadership that the State of California has taken with respect to combatting the drivers of climate change and reducing greenhouse gas ("GHG") emissions. California's Cap-and-Trade Program is an innovative approach to achieve these goals and for several years now has served as an important national and international model. CARB's offsets program has enabled the Cap-and-Trade model to be more than an inspiration to other jurisdictions: it has provided a means for communities outside of California – including EJ communities like those of IPRE's members – to partner with California in the global fight against climate change, a fight that must be undertaken on a global level if we are to succeed. By creating incentives for others to partner with California in this global effort, CARB's offset program has been a critical component of California's leadership on climate issues. However, if construed in an unconstitutional manner, AB 398's DEBS requirement threatens to undermine California's leadership.

2. DEBS and the Dormant Commerce Clause

The July 17, 2017 Assembly Floor Analysis of AB 398 discusses the use of carbon offsets. It notes that the majority of the compliance offsets have been generated by projects located outside of California, and identifies Arkansas, Michigan, New Hampshire, and Ohio as the major sources of carbon offsets. To address this, AB 398's DEBS requirement creates a preference for offsets that "provide direct environmental benefits *in the state*." This raises the specter of litigation brought under the constitutional law doctrine known as the Dormant Commerce Clause ("DCC"). Under the DCC doctrine, a state law is invalid if it discriminates against interstate commerce or if it places an undue burden on interstate commerce. A review of the recent Circuit decisions construing the DCC doctrine in the context of challenges to a variety of state climate change programs reveals the vulnerability of California's program if it does not implement the DEBS requirement in a prudent manner.

In Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013), CARB withstood a DCC challenge related to the state's low carbon fuel standard ("LCFS"). The LCFS was adopted to reduce the carbon intensity of motor vehicle fuel sold within the state. CARB overcame the challenge by demonstrating that the higher carbon intensity ascribed to ethanol from the Midwest was due to an objective analysis that incorporated the emissions associated with the transportation of the fuel – and not an effort to discriminate against out-of-state producers. The *Rocky Mountain* court found the state was regulating internal markets and setting incentives for firms to produce less harmful products for sale in California and not regulating extraterritorial conduct. Unlike *Rocky Mountain*, AB 398's preference is not based on an objective difference between offsets produced in-state vs. those produced out-of-state. Both are generated in accordance with California's offset protocols, the purpose of which is reduce or sequester GHG emissions without regard to location.

Similarly, in *Energy and Environment Legal Institute ("EELI") v. Epel*, 793 F.3d 1169 (10th Cir. 2015), the court found that the DCC was not violated because Colorado's 20% Renewable Portfolio Standard ("RPS"), while it applied to electricity on a multi-state grid, was not regulating extraterritorial conduct because it established a uniform quota applicable regardless of origin. The court stated that, "without a regulation more blatantly regulating price and discriminating against out-of-state consumers or producers,' the near *per se* rule of invalidation would not apply." If the DEBS requirement is implemented in a manner that expressly preferences in-state offsets over out-of-state offsets, then it may not, as Colorado's RPS did, avoid the "*per se* rule of invalidation."

A similar result occurred in a DCC case brought against Connecticut's renewable portfolio standards. In *Allco Finance v. Dykes*, 861 F.3d 82 (2nd Cir. 2017), the relevant state program distinguished between renewable energy credits based on their place of origin. The court held that the program did not amount to discrimination against interstate commerce, as there were legitimate regulatory reasons to consider credits produced in Connecticut differently from those produced outside of the state relative to the reduction of in-state air pollution. The language in the Connecticut program is similar to that in AB 398. However, the Connecticut program made geographic distinctions only insofar as those distinctions were made by a federally-supervised program that encouraged the creation of independent (in-state) and regional organizations for the defensible purpose of encouraging the management of the electric grid (which is itself regional). *See Allco Finance*, 861 F.3d at 106. AB 398 makes geographic distinctions without reference to any federal program and without reference to a regional grid. Global warming, by definition, does not respect political or even geographic boundaries. Thus, given these distinctions and the fact that this decision was issued by the Second Circuit and not the Ninth (which includes California), The *Allco Finance* decision by no means indicates that a challenge brought against California's offset program will have similar results.

The language of AB 398 also resembles that of the Minnesota statute addressed by the decision in *North Dakota v. Heydinger*, 825 F.3d 912 (8th Cir. 2016), where the program was found to violate the Dormant Commerce Clause. In *Heydinger*, while the judges on

the panel were split with regard to preemption and DCC rationales, they were united in invalidating Minnesota's statute that prohibited any person from importing or committing to import power from an out-of-state, new large energy facility, or from entering into a new long-term power purchase agreement that would increase Minnesota's statewide carbon dioxide emissions. In short, though it purported to address the state's GHG emissions, it clearly regulated commerce into and out of the state. If not properly implemented, the DEBS requirement could be held to be blatantly discriminatory just as Minnesota's statute was.

There is one clear rule that can be derived from these complex and somewhat conflicting decisions, and that is that the law concerning the Dormant Commerce Clause is uncertain. Enough ambiguity exists in the case law to encourage a litigant to challenge California's offset Program with the goal of invalidating it, and such a challenge could pose a threat to the state's entire Cap-and-Trade Program. To prevent potential challenges to the implementation of AB 398's DEBS requirement, CARB should avoid making simple, bright line rules that could be construed as blatantly discriminating against offsets generated out-of-state.

For this reason, IPRE supports the approach to implementing the DEBS requirement outlined in the Discussion Draft. In sum, CARB proposes to define DEBS by using the exact words of AB 398 and to develop a process that allows proponents of a particular offset project to make a case as to why that project meets the DEBS criteria, drawing upon the facts of the project and the available science. This is a prudent approach that reflects a welcome administrative humility. Climate science is fast developing and new data is being generated every day that increases our understanding of climate change and its impacts. If CARB were to establish static, bright line rules today, it could well exclude an offsets project that does provide direct environmental benefits in the state – DEBS. An example of the difficulty of developing a workable static interpretation of the DEBS criteria is evidenced by an Ozone Depleting Substances ("ODS") project located in Compton, California. Operated by Appliance Recycling Centers of America, the project produces carbon offsets by extracting refrigerant and other harmful chemicals from the appliances they recycle. These appliances are sent to the recycling center from all over the country. A strict, static reading of the DEBS requirement could exclude this project. Similar complexities can arise with many other offsets projects. It would be impossible for CARB to anticipate all such complexities today and develop fair rules that do not improperly discriminate based simply on location of the project as opposed to DEBS.

As noted above, CARB proposes to adopt AB 398's definition of DEBS as "the reduction or avoidance of emissions of any air pollutant in the state or the reduction or avoidance of any pollutant that could have an adverse impact on the waters of the state." As the science of climate change continues to evolve, the mechanisms that contribute to and reduce adverse climate effects are changing. Science has not yet reached a point where we are able to determine all of the factors that causes air pollutants in a particular geographic area nor what will result in the avoidance of pollutants in the environment. The air does not respect state boundaries. As our knowledge of environmental challenges continue to expand, new policies and technologies will be required to

address these changes. Implementation of California's offset program must accept this reality and provide a mechanism whereby a project's environmental benefits to the state is supported by scientific evidence, as opposed interpretation of the statute which on its face appears to discriminate against California's out-of-state partners.

3. DEBS and the Waters of California'

The definition of DEBS quoted above includes "the reduction or avoidance of any pollutant that could have an adverse impact on waters of the state." These are broad terms. As the U.S. Supreme Court held in Massachusetts v. Environmental Protection Agency, 549 U.S. 497 (2007), GHGs are pollutants, and thus the reference to "any pollutant" includes GHGs.[30] GHGs have a considerable adverse effect on many aspects of our environment, including being a major contributor to climate change, which in turn has significant negative effects on the waters of the State of California.

Climate change has affected California in many ways, including persistent drought and increased wildfires, rising sea level and threats to California's coasts, and warmer waters throughout the state. Each of these effects of climate change has an adverse impact on the waters of the state. The historic droughts that the State has endured has lowered the levels of the Colorado River and the California snowpack, limiting the amount of water that the state has for all uses. The State's wildfires, which recent experience has shown can be severe indeed, require the use of water for control and maintenance, and also increase the susceptibility of watersheds to flooding and erosion, which subsequently impair water supplies. Runoff from burned regions also enter the state's water bodies, leading to increased contamination. Warmer water throughout the state has numerous adverse impacts, including loss of the state's native fish, increasing pollutant levels and the proliferation of invasive species.

In implementing AB 398's DEBS requirement, IPRE calls upon CARB to consider the myriad factors that have an "adverse impact on the waters of the state." All of the offset projects currently being developed by IPRE are reducing GHG emissions, providing a solution to the challenges of climate change and as a result providing a direct environmental benefit to the state of California by reducing an adverse impact on the state's waters.

IPRE and its members are committed to continuing to partner with the State in its efforts to combat climate change. Implementation of AB 398's DEBS criteria presents considerable risks and challenges both to the Cap-and-Trade Program and California's efforts to get others to partner with its efforts. IPRE wishes to work with CARB to ensure that that the risks of DCC litigation can be avoided and the challenges to nondiscriminatory implementation of DEBS overcome. While the offsets program is a

---

[30] "[T]he fact that a statute can be applied in situations not expressly anticipated by Congress does not demonstrate ambiguity. It demonstrates breadth" (internal quotation marks omitted)). Because greenhouse gases fit well within the Clean Air Act's capacious definition of "air pollutant," we hold that EPA has the statutory authority to regulate the emission of such gases from new motor vehicles." 549 U.S. at 532.

small part of California's multifaceted efforts to reduce GHG emissions, it is a critical component. It is the primary means by which CARB incentivizes those outside the State to join with it in the fight to combat climate change, including drawing in partners in states that often otherwise differ from California, thereby helping to broaden the support for the fight against climate change in important ways. To ensure that California continues its role in creating national and international solutions to fighting climate change it is critical that CARB implement the DEBS requirement in a manner that continues to ensure the environmental integrity of the Cap-and-Trade Program and is not improperly discriminatory.

EXHIBIT B

We write to provide the comments of Indigenous Peoples Reducing Emissions ("IPRE") on several of the issues relating to offsets that were addressed during the workshop – in particular the potential application to offsets generated prior to 2021 of AB 398's quantitative limit on the use of offsets that "no more than one-half may be sourced from projects that do not provide direct environmental benefits in the state" ("DEBS"). We refer CARB to our earlier comment letter dated Mach 19, 2018 for additional discussion of the DEBS requirement. We reaffirm but do not repeat those comments here…

2. The DEBS Requirement Does Not Apply to Offsets Generated Prior to 2021

On Slide 33 of its presentation at the April 26 Workshop, CARB stated that "Most stakeholders did not support retroactively applying DEBS to offset credits issued prior to 2021," and noted that most stakeholders expressed "support for exempting from or automatically meeting DEBS standard for previously issued offset credits." In addition to strong stakeholder support for that interpretation, there is strong legal support. For the reasons set forth below, IPRE believes that the DEBS requirement simply does not apply to offsets issued prior to 2021 and calls upon CARB to amend the Cap-and-Trade Regulation accordingly.

a. The Plain Language of Health & Safety Code Section 38562 Makes Clear that DEBS Does not Apply to Offsets Issued Before 2021

The DEBS limitation is not a standalone statute. AB 398 amended the California Health & Safety Code ("HSC") and its provisions must be construed within their statutory context. The DEBS provision is set forth in Subsection E of HSC Section 38562(c)(2). It is one of many subsections that provide specific directions to CARB under Section 38562(c)(2)'s overarching direction**: "In adopting a regulation applicable from January 1, 2021, to December 31, 2030**, inclusive, pursuant to this subdivision, the state board shall do all of the following: . . . ." (Emphasis added.) Thus, the plain language of the statute that includes the DEBS provision directs CARB to develop regulations applicable only to the specified period post-2020.

HSC Section 38562(b) precedes Section (c) and provides general direction to CARB. Several provisions of Section (b) make clear that the DEBS limitation should not be construed to apply to offsets generated prior to 2021:

- Subsection (b)(1) establishes the overarching direction to CARB to "[d]esign the regulations . . . in a manner that . . . encourages early action to reduce greenhouse gas emissions." Interpreting DEBS to apply pre-2021 would discourage those that took action early to reduce GHG emissions by developing offset projects.
- Subsection (b)(5) directs CARB to "[c]onsider [the] cost-effectiveness of these regulations." Offsets are a key cost flexibility mechanism and drastically limiting existing offsets would increase the cost that the Cap-and-Trade Program imposes.
- Subsection (b)(7) directs CARB to "[m]inimize the administrative burden of implementing and complying with these regulations." Developing a process by which CARB would determine "ways to address existing projects where the offsets have not been used for compliance" CARB Preliminary Discussion Draft at 18, would be hugely burdensome for the agency, both to develop such a process and then to apply it to the existing projects and the offsets generated by them.

b. Absent Action by CARB to Exempt Pre-2021 Offsets from DEBS It Will Have an Improper and Illegal Retroactive Effect

If CARB does not amend the Cap-and-Trade Regulation to establish that offsets generated pre-2021 either are exempt from the DEBS limitation or automatically meet it, the DEBS usage limit will impact pre-2021 offsets despite the fact that AB 398 does not directly apply to them. While the point of regulation for the DEBS usage limitation is the surrendering of offsets post-2020, there is no question that it nonetheless impacts offsets generated pre-2021. Offsets are compliance instruments issued by CARB for the sole purpose of being used to meet compliance obligations under the Cap-and-Trade Program. If that sole usage is limited, the offsets are impacted. Thus, though the language of AB 398 does not address pre-2021 offsets, it does impact them. The value of pre-2021 offsets that are not either deemed exempt from or to automatically meet DEBS will be greatly diminished.[31] "A statute is retroactive if it affects rights, obligations, acts, transactions and conditions performed or existing prior to adoption of the statute and substantially changes the legal effect of those past events." *In re Marriage of Reuling*, 23 Cal.App.4th 1428, 1439 (1994)(citations omitted). Absent appropriate regulatory action by CARB, the DEBS provision will have retroactive impact. That raises a significant legal issue.

[31] It has been suggested that those that invested in offset projects anticipated this because the Cap- and-Trade Program was due to sunset after 2020. That is not correct. Prior to the adoption of AB 398 CARB maintained that it had the authority to continue the Program post-2020 and repeatedly stated that it would do so. Many independent legal analyses supported CARB's position. Those that invested in offset projects reasonably relied on CARB's statements and had a reasonable expectation that the Program would continue post-2020.

The California Supreme Court has established a two-part test for determining if a statute has an improper retroactive effect. First, the Court must determine if the legislature intended the statute to be retroactive. If not, that ends the discussion. If so, then the Court must determine whether the application of the retroactive law is unconstitutional. *In re Marriage of Buol*, 39 Cal.3d 751, 756 (1985)("Legislative intent, however, is only one prerequisite to retroactive application of a statute. Having identified such intent, it remains for us to determine whether retroactivity is barred by constitutional constraints.").

i. The Legislature Did Not Intend DEBS to have Retroactive Effect

California courts have held that for a statute to have a retroactive effect the legislature must have clearly and expressly stated that that it does so. "[It is a] well-established presumption that statutes apply prospectively in the absence of a clearly expressed contrary intent . . . ." *Californians for Disability Rights v. Mervyn's, LLC*, 39 Cal.4th 223, 230 (2006), *citing Evangelatos v. Superior Court*, 44 Cal.3d 1188, 1218 (1988). In determining this issue, courts look to the language of the law to determine if a statute was intended to be retroactive. "[Legislative intent] is always considered significant because, '[t]he Legislature is well acquainted with the rule requiring a clear expression of retroactive intent, and the fact that it did not so express itself or did not make the amendment effective immediately is a significant indication it did not intend to apply the amendment retroactively.'" *Wienholz v. Kaiser Found. Hosps*., 217 Cal.App. 3d 1501, 1505 (1989), *citing Perry v. Heavenly Valley* 163 Cal.App.3d 495, 500 (1985). In addition to the plain language of HSC Section 38562 discussed above, the legislative record of AB 398 makes clear that the Legislature did not intend the DEBS limitation to have retroactive impact upon pre-2021 offsets.

In *Wienholz*, the absence of express language providing retroactivity took on special significance as certain sections of the relevant statute contained express references to retroactive application, whereas the challenged provision did not. That is the case here as well. AB 398 also added Subsection C to HSC Section 38562(c)(2), which "[r]equire[s] that current vintage allowances designated by the state board for auction that remain unsold in the auction holding account for more than 24 months to be transferred to the allowance price containment reserve." Thus, when it adopted AB 398, the Legislature knew how to make it apply to existing compliance instruments. That it did not do so for Subsection E of this same provision makes it clear that it did not intend for the DEBS limitation to have retroactive impact.

Moreover, there is nothing in the legislative history of AB 398 that indicates that the Legislature intended for DEBS to apply immediately. The Legislature issued seven different reports pertaining to AB 398 and not one of them discusses the application of DEBS to pre-2021 offsets much less sets forth an express intent for DEBS to apply prior

to the specified period of January 1, 2021, to December 31, 2030.[32] The absence of any reference to AB 398's retrospective application, indicates that it was not the intent of the legislature to have it do so. "A statute's silence as to retroactivity is an authoritative indication the Legislature intended a prospective application." *Reuling*, 23 Cal.App.4th at 1439-1440.

Another factor that courts consider is whether the statute's purpose would be "served significantly by its application to transactions which preceded the change and the principle that retrospective imposition of increased liabilities is to be carefully avoided". *City of Los Angeles v. Shpegel-Dimsey, Inc.*, 198 Cal.App.3d 1009, 1019-1020 n. 2 (1988). The purpose of AB 398 is to strengthen the Cap and Trade Program. Retroactive application of AB 398 will have the opposite effect. It would alter the value of existing carbon offsets, undermine the economic assumptions of the participants in the Program, and add uncertainty to the carbon market.

ii. If Read to have Retroactive Effect DEBS is Unconstitutional

The second issue is the question of constitutionality. The California Supreme Court has "long held that the retrospective application of a statute may be unconstitutional if it is an *ex post* facto law, if it deprives a person of a vested right without due process of law, or if it impairs the obligation of a contract." *Buol*, 39 Cal.3d at 756. The statute at issue in *Buol* was held to be unconstitutional as it deprived the plaintiff in the case a vested right without due process of law.

Here, if the DEBS provision is construed to apply to existing offsets it likely would be found to be unconstitutional by depriving the holders of those offsets of a vested right without due process. Last year it was definitively determined that compliance instruments – which include offsets – consist of property rights that may not be taken absent due process. *See California Chamber of Commerce v. State Air Resources Bd*., 10 Cal. App. 5th 604, 646-649 (2017). The Court's analysis is thorough and well-reasoned.[33] The Court began with the observation that "the due process and *takings clause* concepts of property are not coterminous," and that the "*due process clause* recognizes a wider range of interests in property." *Id*. at 647 (citations omitted). It held that while compliance instruments may not constitute property vis-à- vis the government, "this does not mean compliance instruments, including emissions allowances, lack value *to the holders*. [They] . . . consist of valuable, tradable, private property rights. Id. at 649. If CARB does not amend the Cap-and-Trade Regulation to make clear that offsets issued prior to 2021 are either exempt from or meet the DEBS

---

[32] See Assembly Floor Bill Analysis AB 398 (2017-2018 Reg. Sess.), July 17, 2017; Senate Floor Bill Analysis AB 398 (2017-2018 Reg. Sess.), July 17, 2017; S. Comm. on Appropriations, Bill Analysis AB 398 (2017-2018 Reg. Sess.), July 17, 2017; S. Comm. on Environmental Quality, Bill Analysis AB 398 (2017-2018 Reg. Sess.), July 12, 2017; Assembly Floor Bill Analysis AB 398 (2017-2018 Reg. Sess.), May 30, 2017; A. Comm. on Appropriations Bill Analysis AB 398 (2017-2018 Reg. Sess.), May 15, 2017; and A. Comm. on Appropriations, Bill Analysis AB 398 (2017-2018 Reg. Sess.), March 30, 2017.

[33] Notably, the California Supreme Court declined to review the case. 2017 Cal. LEXIS 4991.

requirement, then the holders of those offsets would be deprived of their property rights without due process and may well seek legal recourse.

For all of the foregoing reasons, IPRE calls upon CARB to amend the Cap-and-Trade Regulation to make clear that offsets issued prior to 2021 are either exempt from or meet the DEBS requirement. Doing so would be consistent with the plain language of HSC 38562 and its directives to CARB, the intent of the Legislature when it adopted AB 398, the constitution, and good policy.

3. The Regulation's Invalidation Provisions Should Be Revised

On Slide 38 of its presentation at the April 26 Workshop, CARB invited stakeholder input on "[r]evising invalidation provisions to further narrow types of activities or actions that could result in an invalidation." In response to a question posed by IPRE during the workshop, CARB staff clarified that it invited input not only on narrowing the invalidation provisions but also on reconsidering the Buyer Liability approach to invalidation altogether. Staff expressed particular interest in getting input on these issues as they relate to forest offset projects.

IPRE supports and endorses the May 10 comments of the California Forest Carbon Coalition. Many forest offset projects are on or are part of larger tracts of forest lands where timber is harvested. Like California, many states have extensive timber harvesting regulations, and thus minor infractions of environmental, health and safety ("EHS") regulations are not unusual on forest lands. These NOVs may have nothing to do with a forest offset project on or a part of these lands and yet under the current language of the Regulation's invalidation provisions such NOVs may result in the offsets generated by those projects being invalidated. That can be a particularly devastating result for forest offset projects because – unlike, say, ODS projects – the vast majority of a forest project's offset credits are issued at one time. If an unrelated NOV happens to occur during the same narrow period, virtually the entire project's offsets could be invalidated.

This same concern extends to other types of EHS regulations. We are aware of at least one significant forest offset project in Kentucky that was registered with CARB but recently was abandoned due to concerns about potential invalidation. In that instance, after having made significant investments in the forest offset project, the forest owner could not obtain adequate assurance that the offsets generated by its project would not be invalidated in the event that mining operations were conducted beneath the surface that might give rise to EHS violations (mines are subject to many regulations such that minor NOVs are not unusual) – even though the two activities would be wholly unrelated, one above ground and one below. Thus, in this particular instance, with the collapse of the forest project, the owner of the land will have little choice but to pursue coal mining at its property. That surely is not a result that California's climate policies are intended to further.

4. Conclusion

IPRE and its members are committed to continuing to partner with the State in its efforts to combat climate change. Implementation of AB 398's DEBS criteria presents considerable risks and challenges both to the Cap-and-Trade Program and California's efforts to get others to partner with its efforts. While the offsets program is a small part of California's multifaceted efforts to reduce GHG emissions, it is a critical component. It is the primary means by which CARB incentivizes those outside the State to join with it in the fight to combat climate change, including drawing in partners in states that often otherwise differ from California, thereby helping to broaden the support for the fight against climate change. (IPRE)

> **Response:** These comments deal with provisions under the Cap-and-Trade Regulation, and are therefore out-of-scope for this MRR rulemaking.

D. MISCELLANEOUS COMMENTS

Comment:
Pollution in California and Using Pet Coke as a Fuel
I just got last minute notice that you've got some deadlines.
Why is it that ARB is not tracking PET COKE usage?
Why is it that Heidelberg Cement, Germany is powering their California cement plants using PET COKE?
Did you know that Jerry Brown's AG office sent a compelling letter to Santa Clara County about burning cleaner fuels years ago and it fell upon deaf ears?
What can you do to eliminate the use of PET COKE – especially in populated areas? (RHODAFRY)

> **Response:** The submitted comments are not related to the proposed MRR amendments, but are included here for completeness. Since these comments are out of scope, no response is required. Please see the Cap-and-Trade Final Statement of Reasons for responses to these comments.

V. SUMMARY OF COMMENTS MADE DURING THE 15-DAY COMMENT PERIOD AND AGENCY RESPONSES

Chapter V contains all comments submitted during the 15-day comment period and the December 13, 2018 Board hearing that related to the proposed amendments or to the procedures followed by CARB in proposing the amendments, together with CARB's responses. The 15-day comment period commenced on November 15, 2018, and ended on November 30, 2018, with additional comments submitted at the December 13, 2018 Board hearing on the proposed amendments.

A. LIST OF COMMENTERS

A-1. Table V-2

Abbreviation	Commenter
CAISO2	Andrew Ulmer, California Independent System Operator Written Testimony: 11/30/2018
LNA	Justin Andrews, Lhoist North America Written Testimony: 11/30/2018
PWX2	Michael Benn, Powerex Corp Written Testimony: 11/30/2018
SMUD2	William Westerfield, Sacramento Municipal Utility District Written Testimony: 11/30/2018
LADWP2	Cindy Parsons, Los Angeles Department of Water and Power Written Testimony: 11/30/2018
BPA2	Alisa Kasewater, Bonneville Power Administration Written Testimony: 11/30/2018
PACCORP2	Mary Wiencke, PacifiCorp Written Testimony: 11/30/2018
ADAMS2	Lovester Adams, Baptist Ministers Convention Oral Testimony: 12/13/18
BIZFED2	Lois Henry, BizFed Central Valley Oral Testimony: 12/13/18
COVANTA2	Peter Weiner, Covanta Oral Testimony: 12/13/18
CROCKETTCOGEN2	Anna Fero, Paul Hastings Oral Testimony: 12/13/18
EDF2	Katelyn Roedner Sutter, Environmental Defense Fund Oral Testimony: 12/13/18

Abbreviation	Commenter
NCPA2 and GOLDENSTATEPOWER2	Susie Berlin, Northern California Public Power and Golden State Power Cooperative Oral Testimony: 12/13/18
NEARZERO2	Danny Cullenward, Near Zero Oral Testimony: 12/13/18
NISEI2	Manuel Cunha, Jr, Nisei Farmers League Oral Testimony: 12/13/18
NRDC	Alex Jackson, Natural Resources Defense Council Oral Testimony: 12/13/18
PANOCHE2	Robin Shropshire, Panoche Energy Center Oral Testimony: 12/13/18
PG&E3	Mark Krausse, Pacific Gas and Electric Oral Testimony: 12/13/18
PGCS2	Juan Garcia, PG Cutting Services Oral Testimony: 12/13/18
SCPPA2	Tanya DeRivi, Southern California Public Power Authority Oral Testimony: 12/13/18
SOCALGAS2	Paul Maggay, SoCalGas, Oral Testimony: 12/13/18
SMUD3	Timothy Tutt, Sacramento Municipal Utility District Oral Testimony: 12/13/18
TURLOCK	Brian Biering, Turlock Irrigation District Oral Testimony: 12/13/18
CEJA	Stephanie Tsai, California Environmental Justice Alliance Oral Testimony: 12/13/18
CMTA2	Michael Shaw, California Manufacturers and Technology Association Oral Testimony: 12/13/18
LONGBEACH2	Max Perry, City of Long Beach Oral Testimony: 12/13/18
LACVCOALITION	Bishop Lovester Adams, for CA Missionary Baptist State Convention et al. Written Testimony: 12/13/2018
WSPA2	Juan Garcia, PG Cutting Services Written Testimony: 12/13/2018
WSPA3	Juan Garcia, PG Cutting Services Written Testimony: 12/13/2018

B. EIM OUTSTANDING EMISSIONS

B-1. Comment: Support 15-Day EIM Purchaser Approach

Powerex is greatly appreciative of CARB Staff's support of improving the approach to the highly complex issue of accounting for and retiring allowances in connection with greenhouse gas ("GHG") emissions that support electricity transfers to California in the Energy Imbalance Market ("EIM"). (PWX2)

Response: Thank you for the support.

B-2. Multiple Comments: Concerns with 15-Day EIM Purchaser Approach

Comment:
Abandon the EIM Participant Approach: SMUD strongly opposes the changes in the 15-day language and the earlier 45-day language that abandon the use of CARB's current "bridge solution" for dealing with potential "outstanding" (secondary dispatch) emissions in the Energy Imbalance Market (EIM). The bridge solution preserves environmental integrity in relation to emissions leakage by retiring allowances to cover the estimated outstanding emissions in the (EIM). The EIM participant approach as proposed in the 45-day language and modified in the 15-day language does nothing to enhance environmental integrity. Instead, the changed approach risks disruption of the EIM market just as it is expanding and bringing greater environmental benefits to California and the western region.

It is striking that the California Independent System Operator (CAISO), a collaborative state energy governing body that hosts the EIM market, recommended that the ARB retain the bridge solution through 2019 in 45-day comments – a recommendation ignored by CARB in the 15-day language. The utility EIM Participant approach proposed in the 15-day language imposes additional rules and costs on utility EIM participants simply for being part of the market, not in any manner related to a choice to procure or not procure of GHG emitting resources. As such, the 15-day language complicates EIM market participation, and in addition raises the potential that utility ratepayers may be overcharged for the obligation.

The "EIM Participant" language, as currently drafted, is essentially a GHG emissions "penalty" structure on California utilities that are either direct participants in the EIM, or LSEs within the CAISO service territory who have EIM energy cleared on their behalf. The GHG penalty is wholly disconnected from the decisions made by these EIM participants, other than the decision to participate in the first place. As such, the GHG penalty does not encourage any particular GHG reduction in the EIM market transactions. It is no wonder that the CAISO and market participants are recommending that the ARB abandon this problematic solution as they are worried about the unintended impacts on the EIM market place.

SMUD recommends that CARB accept the CAISO advice, which is supported by many market-involved stakeholders and retain the bridge solution at least through 2019.

There is no loss of environmental integrity by doing so, because any estimated secondary dispatch emissions are still covered.

Take Time To Observe and Analyze EIM Market Changes: SMUD notes that the new CAISO market rule intended to lessen secondary dispatch has just gone into effect, hence there has not been adequate time for CARB Staff to analyze the effects of the rules approved by FERC to evaluate whether they have shifted the patterns of resource dispatch in the EIM, and whether they demonstrate a lower potential amount of energy "leakage" and therefore a lower *potential* for emissions "leakage." CARB Staff's decision to move forward at this time without information about the market changes is not justified by any urgency to retire the "bridge solution" currently in place. The bridge solution fully covers the estimated outstanding emissions – there is no "leakage" that remains to threaten environmental integrity.

SMUD notes that when FERC approved the new CAISO tariff, it mandated studies (165 FERC 61,050), which when completed will provide solid data on the effects of this EIM market change.

"In order to provide greater transparency to the market, we require CAISO to submit an informational report to the Commission on or before January 1, 2020.The CAISO notes that developing these reports will require collaboration with stakeholders to gain consensus on the concept of secondary dispatch and to determine the format and content of the reports. The report must describe the extent to which situations similar to the scenario described by DMM in its comments to CAISO's stakeholder process materialize during the 12 months after the implementation of CAISO's tariff revisions." (165 FERC ¶ 61,050 at 18).

FERC goes on to say that it will not require a report on the "magnitude of secondary dispatch that continues to occur and the historic and ongoing volume of emissions associated with such secondary dispatch as PG&E and Powerex request" (*Id*.at 19) because these reports would be "focused on compliance with current and potential future CARB regulations regarding GHG emissions, and are not necessary to assess the justness and reasonableness of CAISO's proposal." (*Id* at 19). However, it seems that CARB could have CAISO produce these exact reports by January 2020, and thus provide the agency with more representative data on how secondary dispatch and potential emissions leakage has been affected by this tariff change. The FERC mandated study is absolutely material to the issues in CARB's rulemaking and MRRs.

Retaining the bridge solution for an additional period provides time for experience with the newly FERC-approved CAISO tariff to affect secondary dispatch. Retaining the bridge solution also provides time for better calculation of any remaining secondary dispatch emissions, improving accuracy over the rough approach of assuming that all EIM participation should be associated with the default emission factor in the calculation to determine outstanding emissions. In addition, retaining the bridge solution provides time for the study ordered by FERC on secondary dispatch emissions when approving the CAISO tariff aimed at reducing the problem. Lastly, retaining the bridge solution

provides time for CARB to conduct additional analysis of the secondary dispatch problem as the EIM expands and the CAISO tariff change is in place.

Bottom Line: Nearly all the proposed EIM-related changes in the 45-day and 15- day language for the Cap and Trade and MRR regulations should be rejected by the Board. In the MRR, none of the proposed changes in Section 95111(h) should be adopted, and all references to "EIM Purchaser", including the definition, should not be added. (SMUD2)

Comment:

The California Independent System Operator Corporation (ISO) submits these comments on the modified text to proposed amendments to California's cap and trade and mandatory greenhouse gas reporting regulations issued by the California Air Resource Board (ARB). The modified text would establish a compliance obligation and accounting rules for Energy Imbalance Market (EIM) outstanding emissions.[34] Consistent with its comments on ARB's initial proposed amendments issued in September 2018, the ISO continues to recommend that ARB not adopt these amendments. Instead, ARB should maintain its existing "bridge" approach for EIM outstanding emissions for the 2019 cap and trade compliance year. This approach will allow ARB and stakeholders to monitor enhancements the ISO recently made to the EIM to provide a more accurate attribution of which EIM participating resources support EIM transfers to serve California demand and reduce the potential for secondary dispatch that may result in EIM outstanding emissions.[35]

I. Background

The ISO supports efforts to track and reduce greenhouse gas emissions in California's electricity sector and will continue to work collaboratively with state agencies and stakeholders to advance this objective. Among other efforts, the ISO's implementation of the EIM has facilitated the integration of increasing amounts of renewable energy resources in the Western Interconnection that have helped reduce greenhouse gas emissions from the electricity sector. The EIM is an extension of the ISO's real-time market that helps balance supply and demand in the ISO balancing authority area as well as in EIM Entities' balancing authority areas. The use of the EIM permits other balancing authority areas to take advantage of the ISO's real-time market processes and facilitates economic transfers of power across the combined ISO and EIM footprint based on available transmission capability. These transfers have in part supported the operation of non-emitting clean resources. Since its inception, the EIM

[34] ARB issued modified text to proposed amendments for public comment on November 15, 2018.

[35] The phenomenon known as secondary dispatch occurs because least cost dispatch has the effect of attributing EIM transfers to lower emitting participating resources based on their combined energy bid and greenhouse gas bid adder. Other, potentially higher-emitting, resources may need to backfill this energy attribution in order to serve load outside of the ISO.

has avoided the curtailment of over 734,437 MWh of renewable output in the ISO balancing authority area, which has displaced an estimated 314,258 metric tons of carbon dioxide equivalents.[36] As more renewable energy resources develop in the West, the EIM will continue to facilitate these emission reductions. ARB should acknowledge that the EIM creates significant emission reduction benefits across the region as ARB considers rule changes related to EIM outstanding emissions.

Under ARB's current cap and trade and mandatory greenhouse gas reporting regulations, ARB treats EIM transfers serving ISO demand in California as electricity imports. ARB relies on the ISO's market results as reported by EIM participating resource scheduling coordinators to identify resources that support those transfers and applies a specified source emission rate to those imports. ARB imposes reporting and compliance obligations on EIM participating resource scheduling coordinators representing these resources.

In response to stakeholder concerns that the ISO's least cost dispatch in the EIM may result in secondary dispatch when EIM transfers serve California demand, ARB adopted regulatory changes to account for emissions associated with the potential for secondary dispatch. These changes established an interim approach or "bridge" to account for what ARB identifies as EIM outstanding emissions. To account for EIM outstanding emissions, ARB currently calculates the difference between total EIM transfers at ARB's unspecified source emission rate less the total resource-specific emissions attributed to EIM participating resource scheduling coordinators as a result of the ISO market optimization. ARB retires allowances designated by ARB for auction that remain unsold in ARB's Auction Holding Account for more than 24 months in the amount of EIM outstanding emissions. In addition, the ISO conducted a stakeholder process to design changes to its EIM bidding rules to develop a more accurate attribution of which EIM participating resources support EIM transfers to serve California demand and reduce the potential for secondary dispatch. The ISO implemented these enhancements on November 1, 2018.[37]

II. ARB should maintain its current "bridge" approach for the 2019 cap and trade compliance year.

The modified text issued by ARB would amend its regulations to recognize an EIM Purchaser as a compliance entity for EIM outstanding emissions. These entities would include electric distribution utilities operating in California that directly or indirectly (through a scheduling coordinator) purchase any electricity through the EIM to serve California demand. ARB would calculate the emission intensity of EIM outstanding emissions at the unspecified source emission rate less any resource-specific emissions

---

[36] *See* Western EIM Benefits Report Third Quarter 2018 dated October 29, 2018, Table 7 at 14, available at https://www.westerneim.com/Documents/ISO-EIMBenefitsReportQ3-2018.pdf.

[37] The federal Energy Regulatory Commission issued an order accepting the ISO's tariff revisions on October 29, 2018: http://www.ferc.gov/CalendarFiles/20181029141944-ER18-2341-000.pdf?csrt=15248796463017711957.

attributed to EIM participating resources by the ISO's market optimization. Under the modified text, each EIM Purchaser would receive a share of EIM outstanding emissions based on total retail sales and ARB would retire corresponding allowances allocated to the EIM purchasers.

The ISO encourages ARB not to adopt the proposed amendments. ARB should maintain its current "bridge" approach through at least the 2019 reporting year to assess the magnitude of secondary dispatch emissions that may occur under the ISO's new EIM bidding rules. ARB could then use such information to guide what, if any, regulatory changes are necessary to address any remaining secondary dispatch effects. (CAISO2)

Comment:
II. Energy Imbalance Market Comments

For a number of reasons, PacifiCorp continues to have significant legal and practical concerns with California Air Resources Board (ARB) regulation of secondary dispatch emissions, which result from activity entirely outside of California and with only a causal link to California load. For all of the reasons articulated in comments submitted on the 45-day language proposal, PacifiCorp also opposes the introduction of the EIM Purchaser concept. These concerns have not changed, however, they are not restated here. …

It is PacifiCorp's expectation that, following the change made to the resource attribution methodology implemented by the CAISO on November 1, greater quantities of energy from emitting resources will be attributed to California from EIM Entities. …

PacifiCorp recommends that ARB leave the door open to understanding and eventually reassessing the longer-term consequences of its currently one-sided emissions perspective. At the very least, ARB should seek a process to work with the CAISO to re-evaluate the emissions deemed delivered to California following the changed methodology adopted November 1. The CAISO's revised attribution methodology builds on the existing greenhouse gas bid adder design and results in a more accurate attribution of resources supporting EIM transfers to serve California load. ARB's proposed changes are not informed by changes in the attribution of resources supporting EIM transfers. PacifiCorp recommends that the ARB maintain its current approach at least until it can evaluate the effect of changes made by the CAISO to address ARB's concern regarding secondary dispatch emissions in the EIM. (PACCORP2)

Comment:
We look forward to working with CARB staff now next year in a new Cap-and-Trade Rulemaking on our concerns with potential implementation issues on the CAISO EIM GHG accounting, and look forward to working with any amendments with CARB and the CAISO to address potential concerns in that regard. … (SCPPA2)

Comment:
And secondary emissions from the EIM market. It is unclear what the impact of the EIM participant methodology will be on the EIM market. A lot of new analysis needs to be done, and is in the works to understand the secondary emissions issue and the impacts on the market. … (SMUD3)

Comment:
The first is in respect to the Energy Imbalance Market. TID is not currently a participant in the EIM, but is considering joining the EIM. And as part of that decision process, we'll need to weigh the potential cost of losing allowances as part of the secondary dispatch emission obligations. So we're appreciative of the staff continuing to look at this in a follow-on rulemaking. … (TURLOCK)

Response: Commenters request CARB maintain the "bridge solution" to address EIM emissions leakage that is in the current Regulation and express concern that the adopted amendments do not incorporate a carbon price signal into the EIM algorithm. See Responses to 45-Day Comments B-1 and B-3.

Some commenters express concern that calculation of EIM Outstanding Emissions will overstate EIM emissions leakage and that the adopted amendments may disincentivize EIM participation. See Response to 45-Day Comments B-3 on how the current methodology is accurately calculating EIM Outstanding Emissions and staff responses on the potential for unintended impacts on electricity market behavior.

The adopted amendments were designed to incorporate any reductions in EIM Outstanding Emissions resulting from recent changes implemented by CAISO to limit bid quantities in EIM. To the extent CAISO's changes reduce total EIM Outstanding Emissions, they will also reduce the share of EIM Outstanding Emissions for which each EIM Purchaser is responsible. CARB will continue to assess and report on EIM emission leakage and work with CAISO and stakeholders to develop possible solutions to emissions leakage resulting from the EIM algorithm in the algorithm.

Some commenters express concern with the implementation issues of the adopted amendments. Staff will continue to work with EDUs to ensure full understanding of the adopted amendments, address implementation issues, and support compliance, as needed.

B-3. Multiple Comments: Calculation of EIM Outstanding Emissions and EIM Purchaser Emissions.

Comment:
Energy Imbalance Market, Imported Electricity [MRR section 95111(h)]

We appreciate the simplicity of the revised proposal for reporting Energy Imbalance Market (EIM) electricity imported to California. However, there are two remaining concerns relating to accuracy of the calculated emissions and allocation of the emissions to the market participants. LADWP sees two factors that will result in inaccurate accounting of EIM Greenhouse Gas (GHG) emissions:

1) Calculating emissions using the MRR default GHG emission factor for unspecified electricity instead of the actual EIM system average emission rate, and

2) Assigning the compliance obligation for the "EIM Outstanding Emissions" based on total retail sales instead of actual electricity purchased from the EIM market.

Each of these factors is discussed in more detail below.

1) CARB is proposing to apply the MRR default GHG emission factor for unspecified electricity to calculate emissions for EIM electricity imported to California. The MRR default GHG emission factor was calculated in 201 O based on marginal generating resources within the entire western interconnected electric grid,_and is based on 10-year-old data. The EIM market is a subset of the western interconnected grid; therefore use of the MRR default GHG emission factor may overestimate emissions associated with EIM electricity imported to California. It would be more accurate to use the actual EIM system average GHG emission rate that could be calculated by the EIM market operator on an annual basis, rather than the MRR default GHG emission factor. The EIM system average GHG emission rate would be more accurate by reflecting the actual EIM generating resources and it could be updated every year. However, if CARB chooses to use the MRR default emission factor, LADWP encourages CARB to update that factor to reflect changes in generating resources that have occurred in the western grid over the past 10 years.

2) CARB is proposing to distribute the "EIM Outstanding Emissions" to EIM electricity purchasers based on the EIM Purchaser's total retail sales, which does not accurately reflect the amount of electricity each EIM participant actually purchased from the EIM market. As a result, some EIM participants will over-pay and some will under-pay for emissions relative to their actual share of electricity purchased from the EIM market. It would be more accurate to divide up the EIM emissions based on each EIM Purchaser's relative volume of participation in the EIM market (i.e. actual EIM market purchases based on final settlement data) rather than total retail sales.

Lastly, LADWP asks CARB to clarify who has the Cap-and-Trade compliance obligation for the "Deemed Delivered EIM Emissions".

- MRR section 95111(h)(1)(A) *EIM Outstanding Emissions as calculated by CARB* states that "EIM Outstanding Emissions" equals "Total California EIM Emissions" less the sum of "Deemed Delivered EIM Emissions" as reported by EIM Participating Resource Scheduling Coordinators in section 95111(h)(1)(C).
- MRR section 95111(h)(1)(C) *Deemed Delivered EIM Emissions Reported by EIM Participating Resource Scheduling Coordinators* requires the EIM Participating Resource Scheduling Coordinators to annually calculate, report and cause to be verified emissions associated with electricity imported as deemed delivered to California by the EIM optimization model based on the results of each 5-minute interval.
- MRR section 95111 (h)(2) *EIM Purchaser Emissions as Calculated by CARB*, states *"Each year after the verification deadline in section 95103((), CARB will calculate each EIM Purchaser's "EIM Purchaser Emissions" for the previous calendar year using information reported annually by EIM Participating Resource Scheduling Coordinators with imported electricity in EIM, retail sales in MWh reported annually by EIM Purchasers pursuant to 95111(h)(2)(B), and information received from CA/SO under an annual subpoena."* It states CARB will calculate EIM Purchaser Emissions using the equation provided, which shows "EIM Outstanding Emissions" being multiplied by the ratio of each EIM Purchaser's Retail Sales to the total Retail Sales of all EIM Purchasers.
- EIM Purchaser is defined as an electrical distribution utility that directly or indirectly purchases electricity through the EIM to serve California load and receives an allowance allocation pursuant to the Cap-and-Trade regulation.

It is unclear who will have the Cap-and-Trade compliance obligation for the "Deemed Delivered EIM Emissions". LADWP has the following specific questions:

- The definition of Electricity Importer states "For electricity that is imported into California through the CAISO Energy Imbalance Market, the electricity importer is identified as the EIM Participating Resource Scheduling Coordinators and EIM Purchasers serving the EIM market whose transactions result in electricity imports into California." Typically the electricity importer is responsible for the Cap-and-Trade compliance obligation for imported electricity. Since both the Scheduling Coordinator and EIM Purchaser are defined as the electricity importer, will the compliance obligation be assigned to the EIM Participating Resource Scheduling Coordinator that reported the data, or will it be assigned to the EIM Purchasers?

For example, for EIM imports where LADWP is the Scheduling Coordinator, will the compliance obligation for "Deemed Delivered EIM Emissions" be assigned to LADWP

solely, or will those emissions be divided among all EIM Purchasers based on retail sales? Who will be responsible for the compliance obligation for "Deemed Delivered EIM Emissions" where the California Independent System Operator (CAISO) is the Scheduling Coordinator?

- MRR section 95111 (h)(2) states that CARB will use information reported by the EIM Participating Resource Scheduling Coordinators to calculate the "EIM Purchaser Emissions". However, the equation to calculate "EIM Purchaser Emissions" does not include a term for the "Deemed Delivered EIM Emissions" reported by the Scheduling Coordinators. The definition of terms for the equation states that "EIM Outstanding Emissions" equals the total emissions calculated pursuant to section 95111(h)(1). This is confusing, and could mean that the "EIM Outstanding Emissions" is the same as "Total California EIM Emissions" that CARB calculates by multiplying the "deemed delivered" MWh by the MRR default emission factor.

Does CARB plan to use only the "deemed delivered" MWh data but not the "deemed delivered" emissions data reported by the EIM Participating Resource Scheduling Coordinators? If so, what is the value of requiring the EIM Participating Resource Scheduling Coordinators to annually calculate, report and cause to be verified emissions associated with electricity imported as deemed delivered to California by the EIM optimization model based on the results of each 5-minute interval? (LADWP2)

Comment:
Prior to Abandoning the Bridge Solution, CARB Should Revise the Calculation of Outstanding Emissions: As quarterly data published by the CAISO shows,[38] EIM transfers into California (to date, only into the CAISO and PacifiCorp West balancing areas) are generally balanced quite evenly with EIM transfers out of California over the course of the year (certain seasons result in more imports vs. exports depending on California's renewable output relative to load). The public EIM reports do not break out exports by generation type, but other CAISO reports detail the reduction in renewable curtailment in the state because California is exporting excess renewables in the middle of the day, thus displacing emitting resources elsewhere in the West with non-emitting resources. Furthermore, a high proportion of EIM entities are served primarily by hydropower,[39] meaning that the emissions profile of these entities is even *lower* than California.

The net flows across state-borders as well as the GHG intensity of the current EIM participants should be reviewed again by agencies and stakeholders before CARB proceeds to impose the GHG cost on specific entities rather than covering the obligation through the overall Cap and Trade market. The current MRR use of the default emission

[38] https://www.westerneim.com/Documents/ISO-EIMBenefitsReportQ3-2018.pdf

[39] Idaho Power, Powerex, Portland General, Puget Sound Energy.

factor applied to all EIM imports should be reconsidered as the CARB moves to a permanent solution to replace the bridge solution. A significant portion of the present EIM is dominated by GHG-free hydropower, which often has a lot of room to adjust output. It is merely an assumption that marginal imbalances will be served by gas power plants with capacity factors less than 60% (the genesis of the current default emission factor). In addition, the data underlying the default factor is over 10 years old, and the entire number should be reconsidered prior to moving away from the bridge solution.

The calculation of "outstanding emissions" today rests on out of date assumptions and imperfect information about the EIM market as it grows. The intent of the calculation is reasonable – to identify potential "emissions leakage" associated with the EIM market, so that obligation can be "covered" by retiring allowances in one way or another. However, it is not reasonable to impose an expensive carbon obligation on specific entities that have no responsibility for the emissions identified, rather than on the overall Cap and Trade market. A solution based on better data and that allocates the carbon obligation to those EIM participants that cause the secondary dispatch. (SMUD2)

Comment:
Rather, PacifiCorp's focus is on the long-term consequences of ARB's one-sided focus on out-of-state emissions and the need to re-evaluate the calculation of EIM Outstanding Emissions following changes implemented to the CAISO's attribution methodology on November 1, 2018. …

As PacifiCorp has noted previously, ARB's theory regarding secondary dispatch emissions deemed delivered to California via the EIM paints a one-sided picture of the overall emissions impact of California's participation in the EIM. This methodology captures emissions increases that occur well outside of California but at the same time ignores emissions reductions that also occur outside of California. This issue is not just about California's emissions accounting but is of critical importance to understanding and quantifying the environmental benefits of greater grid integration and of California's extensive renewable build-out. It is PacifiCorp's view that the ultimate decarbonization of its own resource portfolio will not be possible (or will come at much greater cost) without greater integration of the Western energy grid. At this stage, an approach by ARB that ignores the complete broader West-wide emissions picture is likely to delay regionalization and the faster and less expensive decarbonization benefits it will engender. (PACCORP2)

> **Response:** See Response to 45-Day Comments B-3 on the calculation of EIM Outstanding Emissions and the use of the default emissions factor.
>
> A commenter requests clarification on the role of deemed delivered emissions in the calculation of EIM Outstanding Emissions. Deemed delivered emissions are part of the EIM Outstanding Emissions calculation as set forth in 95111(h)(1)(a). "EIM Outstanding Emissions" equals "Total California EIM Emissions" less the sum of "Deemed Delivered EIM Emissions."

A commenter also requests clarification on which entities are responsible for deemed delivered EIM emissions. Under the Regulation, EIM Purchasers are responsible for EIM Outstanding Emissions and Participating Resource Scheduling Coordinators are responsible for deemed delivered EIM emissions.

B-4. Multiple Comments: EIM Purchaser Requirements and MJRP and ACS Entities

Comment:
PacifiCorp does not own or operate emitting resources in California and is subject to the Cap-and-Trade Program and MRR solely as an electricity importer: PacifiCorp imports energy into California through service to its California retail load, bilateral wholesale sales, and the Energy Imbalance Market (EIM). PacifiCorp's comments are provided in two parts: one from its perspective as a Multi-Jurisdictional Retail Provider (MJRP) serving retail load in California and one from its perspective as an electricity importer via the EIM.

I. MJRP Comments

PacifiCorp reiterates its concern with respect to the interaction between the calculation of Outstanding EIM Emissions and the development of PacifiCorp's compliance obligation associated with its retail service territory in California. Because PacifiCorp's California retail service territory is not part of the CAISO balancing authority area, energy reported as imported to California by PacifiCorp as an EIM Participating Resource Scheduling Coordinator is not used to serve PacifiCorp's California retail load. The simultaneous treatment of PacifiCorp as an EIM Participating Resource Scheduling Coordinator and an EIM Purchaser creates an inequitable double penalty for PacifiCorp's retail customers in California.

PacifiCorp, as an EIM Participating Resource Scheduling Coordinator, contributes to the total sum of "Deemed Delivered EIM Emissions" as well as the total amount of electricity delivered to California via the EIM through energy imports and emissions reported pursuant to section 95111(h)(1)(C). Energy and emissions delivered to California by PacifiCorp as an EIM Participating Resource Scheduling Coordinator are considered wholesale electricity sold from specified sources and are subtracted from the calculation of PacifiCorp's system emission factor pursuant to section 95111(b)(4). The subtraction of low- and zero-emitting specified source energy from the calculation of PacifiCorp's system emission factor serves to increase the system emission factor and therefore the compliance obligation associated with PacifiCorp's California retail service territory.

At the same time, under the proposed EIM Purchaser framework, the same low- or zero-emitting energy reported as delivered to California by PacifiCorp as an EIM Participating Resource Scheduling Coordinator will be multiplied by the default emissions factor to calculate the EIM Outstanding Emissions. Applying responsibility for those emissions to PacifiCorp's California retail service territory as an EIM Purchaser creates a second penalty where PacifiCorp's California retail service customers will be made responsible for emissions not used to serve their load. PacifiCorp is differently situated than other electrical distribution utilities in California because its California retail

load is not served by energy reported as imported to California by EIM Participating Resource Scheduling Coordinators. To avoid this inequitable treatment for PacifiCorp retail customers in California, PacifiCorp should not be considered an EIM Purchaser. In the alternative, low- and zero-emitting specified sources deemed delivered from PacifiCorp resources to California should not be subtracted from the calculation of PacifiCorp's system emission factor or should be subtracted at the default emissions rate as used to calculate EIM Outstanding Emissions. (PACCORP2)

Comment:
BPA's October 22, 2018 comments expressed concerns that the proposed amendments would result in emissions attributable to EIM dispatch being accounted for twice for ACS specified source sales in the EIM: first in the ACS entity emission factor and again by placing a compliance obligation on the EIM Purchaser.

While BPA recognizes that the total potential for double counting in California is small today, BPA is concerned that this issue could become more significant should the number of ACS entities increase and/or as other states consider cap-and-trade programs that may link with California's program. States pursuing linkage with California's program would look to California to provide direction for how to accurately account for emissions for EIM imports. Application of this approach in a state such as Oregon where BPA meets approximately 30 percent of state electricity demand and has long-term contracts with 36 consumer-owned utilities, many of which purchase all of their power from BPA, would result in significant double-attribution of these emissions to BPA and its preference customers and increase costs to rate payers.

BPA continues to be supportive of CARB' s efforts to better account for the carbon content of EIM imports into California, and urges CARB to continue working with the CAISO on a long-term solution to accurately account for carbon emissions associated with EIM secondary dispatch. In the meantime, BPA requests that CARB provide further clarification on how emissions attributable to secondary dispatch in the EIM would be accounted for an ACS entity. (BPA2)

> **Response:** The commenters request clarification on the treatment of MJRP and ACS entities under the adopted amendments. See Response to 45-Day Comments B-4.

B-5. Multiple Comments: Future Changes Addressing Emissions Leakage in EIM

Comment:
As the EIM continues to grow its footprint, Powerex encourages CARB Staff to continue to monitor the issue. Should a better solution to account for GHG emissions within the CAISO market be developed, and/or if the CAISO's newly adopted EIM GHG accounting methodology is not sufficiently effective, CARB Staff may need to re-evaluate this issue.

While Powerex appreciates the efforts to date, Powerex reiterates its concern that the current approach to calculating and allocating emissions in the EIM is not workable in the context of a potential regional day-ahead market. A regional day-ahead market, with

far greater volumes of electricity transfers, including into California, and thus potentially far greater GHG emissions, would pose an even greater challenge to achieving California's policy objectives absent the development and application of a more robust GHG attribution framework.

Therefore, as Powerex discussed in its previous comments,[40] when CARB conducts its rulemaking to implement SB100, Powerex urges CARB to consider undertaking a comprehensive review of its rules and requirements related to electricity imports into California. (PWX2)

Comment:
And finally, we look forward to working with the ARB staff and CAISO regarding the EIM accounting strictures. And we think that that market is likely to change as it develops, and would like to work with staff to develop that. (PG&E3)

> **Response:** Thank you for the comments. CARB will continue to monitor EIM emissions leakage, and the adopted amendments do not preclude staff from proposing updates in the approach to accounting for EIM emissions leakage in future rulemakings, if warranted. The adopted amendments also only address emissions leakage in the EIM and do not address the future expansion of the day-ahead market or regionalization. CARB will work with CAISO and stakeholders to assess any issues that may need to be addressed in the day-ahead market. See also Response to 45-Day Comments B-5.

C. CAP-AND-TRADE REGULATION, MULTIPLE COMMENTS

Comment:
With the proposed inclusion of high calcium lime production in the Regulation, a separate benchmark needs to be established in Table 9-1 for this manufacturing process. This difference is based on the stoichiometric differences in the raw materials used to manufacture each product, which results in higher process emissions for dolime vs hi cal lime. This distinction has been recognized by Environment Climate Change Canada (ECCC) in the proposed federal GHG cap and trade program for Canada, and as a result they have developed separate benchmarks.

Utilizing one benchmark for both dolime and lime does not reflect the actual chemical reaction difference that impact CO2 process emissions. Therefore, Lhoist requests that CARB consider a separate benchmark for lime manufacturing. (LNA)

Comment:
Wanted to express again our strong support for the Cap-and-Trade Program. Also wanted to thank staff for efforts over the last year to improve upon the municipal use of

---

[40] October 22, 2018 Comments of Powerex Corp. on California Air Resources Board Proposed Amendments to the Regulation for Mandatory Reporting of Greenhouse Gas Emissions at page 8 (available at https://www.arb.ca.gov/lists/com-attach/6-ghg2018-VWdTZQY2UToLIFJj.pdf).

allowance values, specifically adding in vegetation management provisions to help with wildfire risks for our utilities. .... (SCPPA2)

Comment:
I also appreciate staff's work on this regulatory package, both the original one and the 15-day amendments. EDF is pleased to support the adoption of this package, though I would like to point out two major recommendations for improving these amendments, which we don't see reflected in the 15-day package. First, as we have suggested before, we strongly encourage CARB to begin working now to identify high integrity emission reductions to back the price ceiling units. When we -- you know, if, at some point, we hit the price ceiling, of course, there will be units sold at the price ceiling. And those need to be matched by reductions. And we would like to see a stream of reductions start ahead of time, so if that happens, we are prepared to maintain the environmental integrity of the program, rather than waiting to see what happens. Second, EDF maintains our position that a modest cap adjustment post-2020 is important to increase California's climate ambition. Specifically, the 52.4 million allowances slated to be split between the two price tiers post-2020 we think should just be removed from the program entirely. We don't see them as needed for cost containment at this point, but we do see it as an important opportunity to increase our ambition a little bit as a State. The Cap-and-Trade Program has been successful at helping to reduce our state's emissions. And tightening that post-2020 cap puts us on an even stronger footing to meet our 2030 target. So again, we would just respectfully ask CARB to consider that. And lastly, I just want to say thank you for holding the line on the price ceiling. While we had recommended an even higher one, we do appreciate that there was no change in the 15-day package. (EDF2)

Comment:
I represent Crockett Cogeneration, LP, which supports the Cap-and-Trade Amendments before you today. … The current regulations sunset transition assistance for legacy contracts without an industrial counterparty at the end of the second compliance period, causing legacy contract holders, like Crockett, to bear stranded compliance costs alone for the remainder of their contract durations. We appreciate that the Board, via resolution 17-21, and staff, via today's draft amendments, have recognized and addressed this issue. The proposed amendments before you today would provide transition assistance in the third compliance period and through the remaining life of legacy contracts without industrial counterparties. Crockett supports adoption of the proposed Cap-and-Trade Amendments. (CROCKETTCOGEN2)

Comment:
In Resolution 17-21, you directed staff to provide transition assistance for the compliance obligation that these facilities are now going to be under. We were concerned that this transition assistance was at such a level that it would threaten the continued viability of these facilities. Given that the CalRecycle diversion of organics from landfills regulations are not going to be effective until 2022 at the earliest and are of unknown efficacy, we believe that we need waste-to-energy facilities as a waste management option. We're therefore very pleased that the Resolution 24 18-51 that will be before you has be it further resolved that the Executive Officer will work with the

existing waste-to-energy facilities on alternative methods for allocation for the purpose of additional transition assistance ending by 2025, et cetera. We're very pleased that we're -- that this language is in there. I noticed that it was not in the future Cap-and-Trade Rulemaking activity slide, but we hope that was just an oversight. As a result, we very much support the amendments before you today, and look forward to working with you and staff. (COVANTA2)

Comment:
SMUD supports the adoption of the Cap-and-Trade and Mandatory Reporting Amendments today. … I want to call your attention to an issue that has developed, and that has -- SMUD will work with staff to resolve in the next year or so. So, A, when implementing legacy allowance provisions in the past, ARB staff cut SMUD's legacy contract allowances provided in the years 2015 through 2017 to reflect a proposed CPUC decision to pass on some GHG costs in gas tariffs. Understandably you don't want to provide us allowances if we're already getting compensated for that portion of our GHG costs. However, that CPUC decision did not happen as expected. No GHG costs were passed on in those years. The 45-day language made SMUD whole and cured the cutback, reflecting the revised CPUC policy. However, the 15-day language then removed the cure. So again, we expect to work with staff to resolve that issue in the future. Also, SMUD is appreciative of the resolution suggesting further work be considered in future rulemakings on cost containment. SMUD continues to believe that the escalation rate in the price ceiling is too high, and the spread between the price containment points should be larger. … We would add to this direction to develop and implement a simple estimation based, or similar method, to provide additional allowances to cover the ratepayer cost burden of transportation and building electrification load growth, removing the cap-and-trade barrier to pursuing these vital State GHG reduction policies. In closing, I just want to say we appreciate the continuation of the current banking provisions. This is a vital program component for a utility that is subject to wide swings in available hydropower from year to year. (SMUD3)

Comment:
Second of all, we support the Cap-and-Trade Regulation. We think that generally it is very well done, and we commend staff for getting it to the finish line.

… First, the proposed regulation specify that electric utilities may use a portion of the Cap-and-Trade revenues to find renewable energy or integration of renewable energy. The regulation doesn't provide similar language for the natural gas utilities, leading to ambiguity on the treatment of two sectors. Renewable natural gas, as you know, is an efficient way to reach our short-lived climate pollutant goals by displacing high carbon fuels at its endpoint, as well as mitigating methane emissions. We've spoken to staff on this topic, and they've indicated that the natural gas industry does have the same allowable uses of their Cap-and-Trade revenues. We would just like to see that language explicit and articulated clearly in the regulation. Second, staff acknowledged in the ISOR that it should consider adjustments to the natural gas utility allowance allocation. In light of policies or efforts to decarbonize the sector, such as renewable gas mandates or other changes, such adjustments to consider allowance allocations that's consistent with Board Resolution 17-21 that direct staff to evaluate approaches to

ensuring ratepayer protection for the natural a supplier sector. 1440 was signed into law, which requires the PUC to consider biomethane procurement targets for natural gas utilities. Therefore, consistent with the ISOR and the Board resolution, we feel that it's appropriate for staff to consider adjustments to the allocation -- or to the allowance allocation for gas utilities at this time. And we look forward to working with staff in this next rulemaking to make that adjustment. (SOCALGAS2)

Comment:
I'm actually -- I need to say that we are very pleased with the revisions to the 15-day language. I'm representing the Northern California Power Agency, and the Golden State Power Cooperative. And NCPA is a group of publicly-owned utility members located in Northern California that are directly impacted by the wildfires, and have long lobbied for the ability to use the allowance value for programs that strengthen the resiliency and reduce the wildfire risks. And we strongly urge the Board to adopt that proposal in the 15-day language … With regard to the use of allowance value for the wildfire mitigation, we would like to see the Board provide staff with the guidance and direction to ensure that these programs can be implemented immediately with an interim accounting mechanism, and that we not have to wait until the provisions of SB 901 have been met, where there's a statewide baseline or a specific methodology. That we can do the methodology -- apply that as a true-up after the programs are already put into place. We think that the revisions with regard to the use of allowance value, we would like to have seen them go a little bit further with regard to existing programs. And we'd like to see the Board direct staff to acknowledge in guidance or in the ISOR that programs that are already in place that have been utilized allowance value, continue to be acceptable uses of allowance value, even if they're not specifically delineated in the revised regulations. And finally, with regard to the new regulations, we'll be doing this again in a couple of months, we urge the Board to direct that looking at the use of allowance value for renewable energy projects that aren't RPS compliant be specifically considered as we move towards a greater zero and Carbon neutral policies. (NCPA2 and GOLDENSTATEPOWER2)

Comment:
I'm here on behalf of the Nisei Farmers League upon the funding of this Cap-and-Trade monies are significant to our farmers in our plan. If we do not receive these type of incentive fundings, there's no way our farmers can replace their tractors in a voluntary program that we have achieved with your staff, and with even EPA. So it's very important. But also, I want to make a comment -- excuse me -- is that the gentleman that came up here -- and I'm here about that item. Whatever you can do to make my farmers have a certainty on a price that's not going to put them into where they don't know from year to year if there's going to be funding or not, because farmers have to have plan out. There's the only way it works. This year, our crops -- several commodities crashed, did not come out ahead at all. But the gentleman that came here at the last meeting, Mr. Will Scott, represents the African-American farmers. There are about 89 of them. And their an average age of 80 years old to 70, probably in that range. He was the very first farmer to be in the Tractor Trade-Up Program with ARB and EPA and was the first one that we had with Lynn Terry absolutely showed up to crush a tractor with Jared Blumenfeld and others. Mr. Will Scott is a sharp man. He was in the

military on sub. He was with Pacific Bell. And if you could, Madam Chair, if I could take a minute more, please. He is very sharp to educate young African-American farmers to look at agriculture as a possibility of a job, and he is doing that. When I see a farmer like him taking his time to come up here, I would hope that in the future we recognize the people that do travel and what their skills are, and what they're trying to do. If it wasn't for your program to allow him in the Tractor Trade-Up Program, he would never have been able to get a used new tractor through the monies. It's very important. (NISEI2)

Comment:
I'm going to share a few things today that I think many of you have already heard from me, but I think it's important to say the day when you're planning to adopt these regulations. I appreciate all the constraints that face the Board and climate policymakers. But I think it's really important to mention there has been no analysis in this process of how the stringency of the Cap-and-Trade Regulatory proposal is consistent, either with our statewide emissions target for the year 2030, or with the role that the Board identified for the Cap-and-Trade in the Scoping Plan. I just think that's incredibly important to point out. I also want to point out, I think the responses to comments -- this is kind of a remarkable process, where there is really almost no response to most of the comments that were issued in this docket, and that's a pretty remarkable place to be, given the level of stringency of the discussion that's ensued over the last year. I think it's also important to say I respect the work this Board has done on climate and other issues. The analytical integrity of what staff have put forward does meet the integrity, and do service to the reputation you all have developed over decades.

I think it's important to say this, because we face big challenges. And getting right with the facts and the numbers is an important part of that. There is language in the proposed staff resolution -- or, sorry, the proposed Board Resolution to revisit the question of whether or not there are too many allowances in the program in the coming years, and to collect data at the end of the program's third compliance period in 2020. I think that's a positive development. I want to thank you for proposing that action. I hope you'll consider adopting that. But I think it's important for people to know that if indeed trends continue in the program, most of the extra allowances will be purchased, and you could end up with a large volume of extra allowances in private hands at the point at which you would have to make decisions about trying to accelerate the ambition of this program, which would lead to higher program revenues -- I'm sorry, higher program costs in the future, and fewer revenues to the State and the State taxpayers. So I think it's positive to take a step forward in thinking about these issues, but there has really been no analysis of the single most important variable in the program designed to date, and that's after well over a year of talking about this. (NEARZERO2)

Comment:
But I'm very disappointed, and I'm speaking in a very, very low tone voice, monotone voice, and not my Sunday morning voice. I'm disappointed and appalled, as some of the comments made by the Board members at the hearing in November, when myself, along with other community members, traveled here to Sacramento to share our

concerns with the proposed price ceiling. I would say today that I am here to tell you that we are not an AstroTurf campaign whatsoever.

We are real people with legitimate concerns about your decisions that will impact our local communities. As it stands right now, many low income Californians cannot afford to live near their places of work, because the cost of housing is so high. Increasing transportation costs will have a significant impact on those households in my community or either in our communities. The majority of the members of my local congregation or surrounding community already deal with escalated high gas prices as opposed to other areas of Southern California. I ask this Board to please consider the multitudes that will definitely be impacted should the Board decide to move forward with this. Consider single parent family homes, consider those who are the minority who are simply just getting by and cannot afford another price increase of any kind. If you would bear with me a moment, please.

Consider the mom-and-pop stores that will be impacted. Consider those who commute weekly to and from work to their workplaces. Consider the cost to keep food on the table and meet the needs of the families. Consider the cost to keep the gas lights on from being disconnected. I'm in the trenches of my neighborhood and community every single week. I know perfectly well how my people in the community are living. I know perfectly well what the struggles and hardships are in my community. I know perfectly well what the complaints and the needs in my local community. And higher gas prices unfortunately is not the answer. (ADAMS2)

Comment:
I was here in November voicing my opinion and my concern about potential energy cost and fuel increases. And I'm just going to say that perhaps a decision has already been made or not. But just in case it is to adopt the new revisions, I participated in a case study for my business on how it would impact my business. And I'd like to offer -- I believe you guys have that information already. But moving forward, I'd like to participate with CARB side-by-side in the next couple years, so in case there is another consideration for a revisions or if this revision was the right thing to do, we'll be able to show exactly how it impacted a small business like myself and many others. That's it (PGCS2)

Comment:
Turlock Irrigation District is broadly supportive of the Cap-and-Trade and taking a lot of different efforts right now to reduce its greenhouse gas emissions. … And so the district is very sensitive to potential costs of reducing its emissions. And that concern has kind of come to a head in a couple of years, both in the proposed regulations and the plans for moving forward with the regulations. … The other area is with respect to potentially changing the allocations to address the new RPS requirements of SB 100. And while we understand the rationale for doing that, again, we are particularly sensitive to losing allowances and having a higher cost for some of our ratepayers…. One of the previous commenters had questioned the sufficiency of the record and the Board's -- in the Agency's response to comments. And I have to say that as an attorney and someone who's been observing these rulemakings for some time, I've always found that the Final

Statement of Reasons does fully respond to the comments. So I didn't understand that comment. (TURLOCK)

Comment:
I'm here representing Panoche Energy Center to support the 15-day amendment package and the Board's continued support of an equitable legacy contract resolution. Panoche continues to seek a well-functioning Cap-and-Trade Program that includes a price of carbon for all electricity dispatch. And we're committed to continued good-faith negotiations with our counterparty. We're hopeful that this issue can be resolved in the next six months, and appreciate the continuing help of staff and the Board to find a solution that works for all parties and more importantly a solution that is good for the environment and protects environmental justice communities. (PANOCHE2)

Comment:
Our members are very concerned that, as proposed, the price ceiling for carbon credits will cause dramatically increasing costs if we get to the point of having to hit that carbon ceiling. And if that happens, those costs will absolutely be passed onto consumers in the form of higher fuel, and food, and services costs. Hard working Californians and business owners, particularly in the valley, already pay a premium to conduct business in this State, and cannot afford such a cost increase. The Legislature tasked the ARB with setting a reasonable ceiling for these credits in order to create a fail-safe to prevent a worst case scenario of a runaway credit market. By setting the ceiling prices too high, ARB would be setting the stage for exactly that worst case scenario. A well designed Cap-and-Trade Program has been shown reduce carbon emissions, but dramatic make increases in the credit ceiling prices that are proposed currently puts the program and the economy at unnecessary risk. BizFed Central Valley members urge ARB to set a reasonable ceiling price for Cap-and-Trade carbon credits. And we look forward to partnering with ARB in the future to make sure this program works for Central Valley residents. (BIZFED2)

Comment:
I am here as a long-time supporter of the Cap-and-Trade Program, but unfortunately disappointed in the level of ambition reflected in the package before you today. We still believe the role of Cap-and-Trade in our climate policy is critical. We need to steadily increase the price on carbon, we need revenue for investments, and we need platforms to drive climate action beyond our borders. But we think the program can and should be made stronger, to support greater emission reductions and that this package missed opportunities to do so. Indeed, I'd be hard-pressed to point to one area in the market design before you that was left to staff's discretion, where stringency won out over industry's concerns over compliance costs. Instead, much of the narrative surrounding this package concerned where to set a relief valve price, which, if history is any guide, is unlikely to materialize. Now, WSPA is going to do what WSPA is going to do, which we can't control for. But what I found troubling was staff's response, which appeared to justify its decision to stand firm on its proposal, in part at least by pointing to its inaction on oversupply, on banking rules, and other levers that would have impacted actual prices in the market, not hypothetical possibilities a decade from now. Ultimately, with the climate crisis growing ever more dire, we feel we need more ambition from our

signature climate policies, not less, and that this package fell short. However, I am encouraged to see language in the Board resolution responsive to some of our concerns, which I hope staff will take seriously. And more than that, I hope tomorrow's discussion and update on the 2030 scoping plan will set the stage for what we see is truly needed to meet our climate goals. And that does not mean asking carbon pricing to carry a weight it is fundamentally ill-equipped to bear, but it does mean being honest that this program cannot close the gap without substantial new effort and engagement by this Board to be more responsive and to promote policies to the sectors trended in the wrong direction, from transportation and on. (NRDC)

Comment:
I represent a company, and myself of course also, support the Cap-and-Trade Program, have for many years, and do continue to support today with the adoption of these amendments. I want to start out by saying in particular, we support staffs position on overallocation, and agree that the current cumulative caps constrain GHG emissions through 2030. Further, they support -- they support also a rising price signal, which I think many of those who criticize these adopt -- these amendments have said they don't. We also believe it's premature to make changes to the allowance budgets at this point. And on the cadence, we've been amending the Cap-and-Trade Regulation. I think you've got plenty of opportunity later to come in and change things, if necessary. A few areas we'd like to continue to work with staff on include allocation for the natural gas sector to facilitate decarbonization of the gas system. And you heard from my colleague from Southern California Gas Company. We work with staff on some of that. And if the PUC enacts the program, or the utilities voluntarily enact programs to put biomethane into our pipelines, we believe that's a reason for a lower cap adjustment factor. I will point to my friend Alex Jackson that this is at least one area where staff denied business what they were asking for, which was a lower cap adjustment factor for the natural gas sector. So we'll continue to want to work on that. And then also expressly provide that allowances can be used -- natural gas allowances could be used to purchase and offset the costs of biomethane, another thing we'd like to work with staff on. …. (PG&E3)

Comment:
I think we've been clear in our opposition to the program, because it allows, you know, a lot of the disproportionate local pollution to continue in our communities, and because of the strong link between greenhouse gases and other, you know, co-pollutants like criteria and toxic emissions. So I want to just draw attention to a couple of things today. One is the recently published study by Cushing-Pastor and a larger research group highlighting the fact that regulated facilities have actually increased emissions since the program started. And, you know, that there is, you know, plenty of data on, you know, the disproportionate impacts in low income communities and communities of color. So I just want to, you know, highlight that, because it was recently published and updated over the summer. I'll say that we remain concerned about the same things that we've been talking about, the overallocation, the oversupply of allowances, the lack of justification for industry assistance, and the lack of meaningful analysis showing how exactly the price will drive the reductions that are called for in the scoping plan. So with

that said, I'm -- you know, it's something to see in the resolution that there will be workshops and continuing work on this, and we look forward to continuing that. (CEJA)

Comment:
I just wanted to appreciate the time and effort that the Board, and particularly the staff, put in to developing this amendment. Obviously, there was much going into the development of AB 398 and the legislative proposals going into this. But obviously, implementing that becomes quite a different task. Quite a bit of work has been spent -- time has been spent on that. And we appreciate the elements that come into this particular amendment that help address regulatory certainty. That is obviously very important to industry when it comes to allocating cost -- investment potential, creating new jobs, and certainly providing greater certainty in terms of those costs is very significant and influential in that decision. Particularly, I'd like to note the support for industry assistance, both in the post-2020 period, as AB 398 directed, but also during the third compliance period. And that smoothing of the transition from the second compliance period through to 2030 is very important for industry. And as is noted by staff in their analysis of justification for the third compliance period industry assistance, the rapid increase of price, the doubling in price that would occur for a short period of time, would be quite disruptive to industry and to the jobs that they support in all of our communities. I would encourage the staff -- the Board and the staff obviously, as I'm sure they will do to closely monitor the prices as this is implemented. We know that in the mid-2020s -- or we believe in the mid-2020s that there will be a significant constraint imposed on, industry, as a result. And the prices could go up significantly as a result of that. So keep -- please keep a close eye on that, as we will, most certainly. In addition to that, we know that California's leadership is the real benefit of the program that we are attempting to implement here. It's not the actual emissions reductions that this particular program will achieve. It's the leadership that could be replicated elsewhere in this country and the world. And we appreciate the time and effort that everyone has put into that as well. (CMTA2)

Comment:
Just here to thank you and your staff for incorporating the language in the resolution that explores additional transition assistance for waste-to-energy facilities, like the Southeast Resource Recovery Facility located in Long Beach. And that's it briefly. We look to -- look forward to working with you all in the months to come and thank you very much. (LONGBEACH2)

Comment:
We all traveled to Sacramento to share our opinion that the Board has not adequately taken into account costs to residents, businesses and the economy when setting the price ceiling for the cap-and-trade program.

During the hearing, we shared our concerns that the price ceiling your staff is proposing and the future impacts it could have on our cost of living.

However, we left the November 15 meeting disappointed. Several of the board members' comments were dismissive to our concerns as if we were confused and in need of a more rudimentary explanation.

But we do understand. We understand that the price ceiling is not currently proposed to be set at a level that will keep costs in check. And we understand what this means to small business and families.

Additionally, we want to address several of the issues that were mentioned by board members and staff to dismiss our concerns.

First, staff implied that we should not be concerned because individual households receive a climate dividend on their natural gas and electricity bills. However, this dividend is given to customers of Investor Owned Utilities (such as PG&E) but not for publicly owned utility customers such as LADWP or SMUD. And even though customers of PG&E, Edison, and SDG&E receive a small credit on their bill twice a year, this does not offset the impact of higher energy costs on small businesses. Energy cost increases place a greater burden on all of us and the overall economy.

This answer also does not take into account the increase cost for fuels. Commutes are long for those of us who do not have the luxury of living near our place of employment. Increases in fuel costs only exacerbate the burden felt by many working Californians.

Board members also attempted to characterize the price ceiling as a far-off, distant future or "worst case scenario". However, this "worst case scenario" is untenable for many, and must be addressed. Dismissing the impacts of this rule because it is " in the future" is irresponsible.

We support cap-and-trade and believe the intent of AB 398 is to set the right balance to reduce greenhouse gas emissions while not overburdening residents, businesses and our economy.

We want to engage in productive dialogue with you. We are the "real world" that some board members jokingly mentioned during the hearing. We encourage the Board to listen and engage us, not dismiss us. (LACVCOALITION)

Comment:
Current Situation

• In 2017, California's Assembly Bill 398 was passed, re-authorizing the continuation of the cap-and-trade program. AB 398 has two provisions to help contain costs of California's climate change programs

- California Air Resources Board (CARB) must establish a price ceiling on cap-and-trade allowance prices; and

- CARB must set two intermediary containment prices (speed bump prices) at which allowances would be available for sale.

CARB is currently in the process of considering new regulations to operationalize those provisions of AB 398.

• Western States Petroleum Association retained National Economic Research Associates (NERA) to develop a proprietary economic model to assess the impact of proposed greenhouse gas policies on the California economy. NERA undertook a study using their proprietary New ERA modeling system to estimate the economic impacts of different ranges of values for these prices, with 6 scenarios in total, which are detailed in Appendix 2. All scenarios include a suite of the California specific complementary measures, and the cap & trade program with a 2030 target of 40% below the 1990 level GHG emissions… [WSPA2, WSPA3]

[The attached appendices discuss the economic model developed by NERA that was applied to Heyday Café and PG Cutting Services, including a description of the model, the six potential price ceiling and cost containment point scenarios considered, projected annual petroleum and electricity costs, and notes on methodology. The slides can be viewed in the comment letters at https://www.arb.ca.gov/lispub/comm/bccommlog.php?listname=ct2018.]

…To illustrate the impact of these proposed new regulations, the NERA analysis was utilized to estimate the impact on Heyday Cafe, a small business restaurant within California's restaurant industry.

• In 2017, sales from California restaurants totaled $82.2 billion.[1] Currently there are 92,000 restaurants and bars in California. 47,000 of these establishments are classified as small business[1].In 2018, there were 1.4 million eating-and- drinking-place jobs in California, from a total of 1.8 million restaurant and foodservice jobs, comprising 10% of total employment in the state[1]… [WSPA2]

…To illustrate the impact of these proposed new regulations, the NERA analysis was utilized to estimate the impact on PG Cutting Services, a small business within California's construction industry.

• Our approach may tend to underestimate actual costs of AB 398 on PG Cutting Services, perhaps significantly:

- The approach assumes a baseline cost that is stagnant to 2017 utilization of energy. It does not factor growth of the company over the analysis period. By context PG Cutting Services' revenues have been growing by 33% per annum between 2017 and 2019.

- The approach does not factor capital costs imposed by increased GHG standards. PG Cutting Services reports that past regulations have necessitated the acquisition of new equipment to meet the new air quality standards and backup equipment due to lower reliability of some new equipment as a result of new regulation.

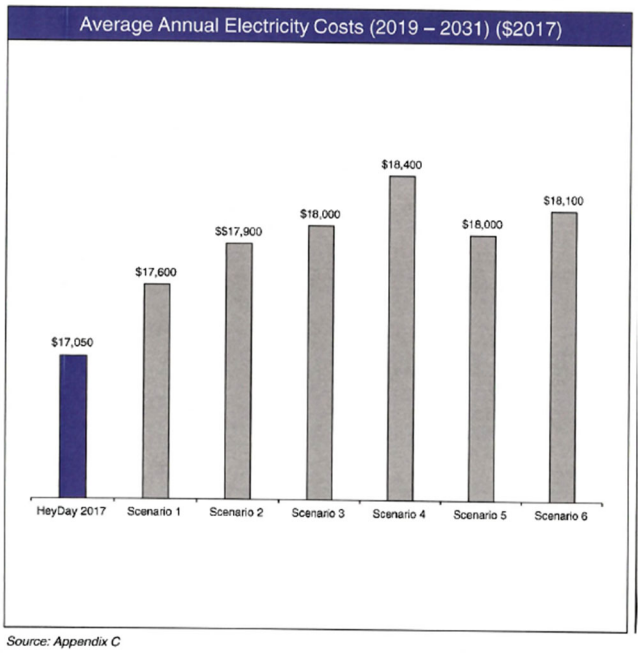
• California had 68,900 construction firms, with 91% of them being small businesses. Construction contributed to $107.5 billion (3.9%) of California's GDP of $2.7 trillion. Private nonresidential spending totaled $30.1 billion, while state and local spending

totaled $30.3 billion. Construction employment in August 2018 totaled 855,700… [WSPA3]

Proposed regulations change average annual electricity costs from $17,000 up to $18,400

• In 2017, Heyday Cafe used 111,600 kilowatt-hours of electricity at a cost of $17,050.

• Under the proposed regulations, Heyday Cafe would be expected to increase electricity costs to as much as $18,400 in average annual costs based on 2017 usage.

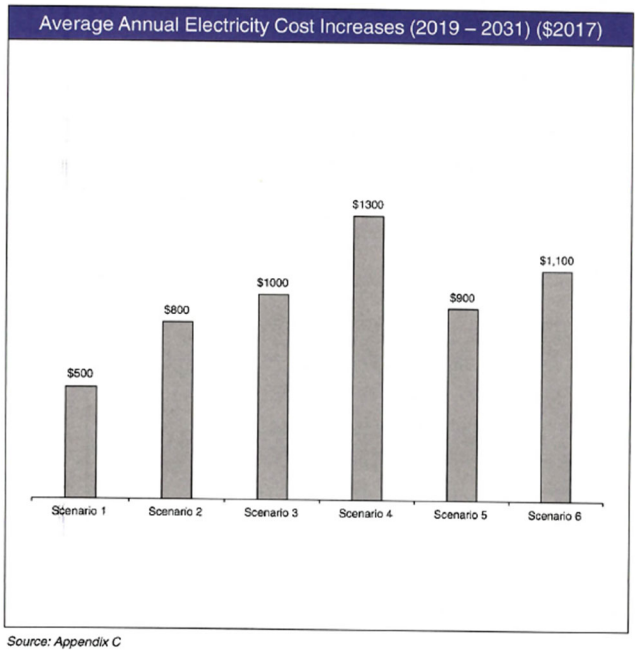


Source: Appendix C

Proposed regulations will increase Heyday Cafe's average annual electricity costs by $500 to $1,300

• The proposed regulation changes amount to an average annual cost increase ranging between $500 to $1,300.

• These changes amount to an increase in costs of anywhere from 3% to 8%.

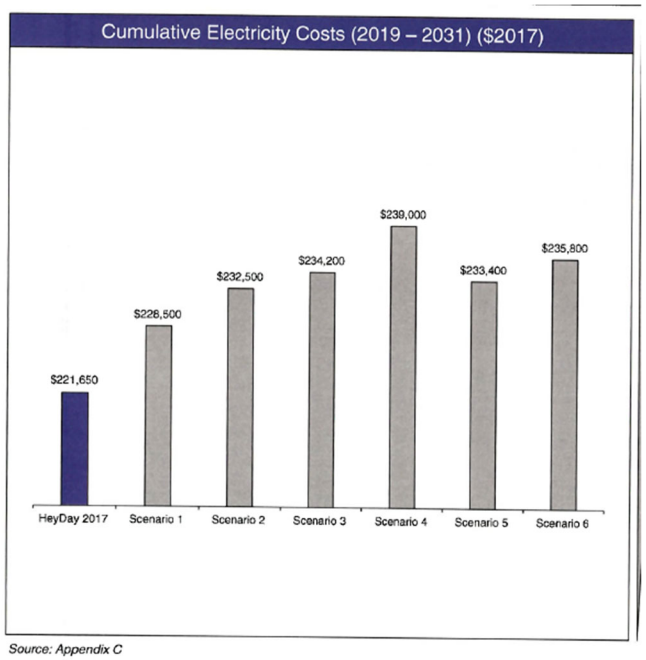


Source: Appendix C

Proposed regulations change total electricity costs from $222K up to $239K

• Based on 2017 usage and electricity prices, Heyday Cafe is expected to cumulatively expend almost $222,000 between 2019 to 2031.

• Based on the proposed regulation changes and NERA's scenario analysis, Heyday Cafe is projected to expend between $228,500 and $239,000.

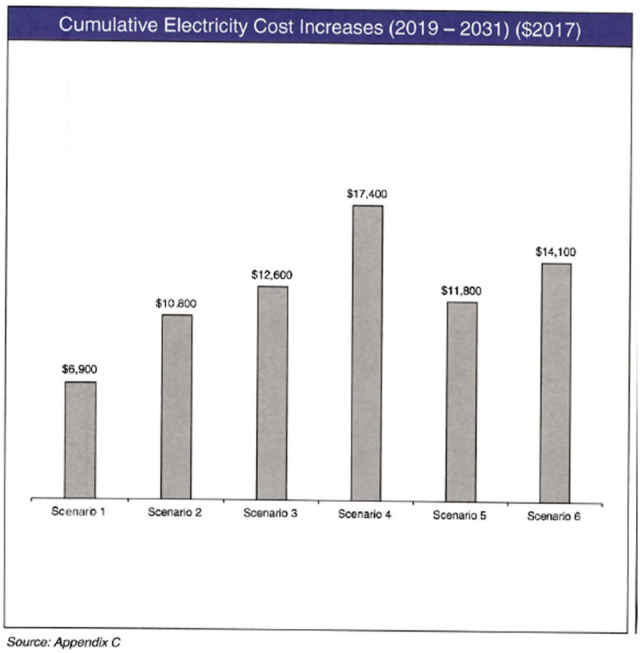


Source: Appendix C

Proposed regulations will increase total electricity costs by $6,900 to $17,400

• Based on the NERA analysis, electricity costs are expected to increase by as much as $17,400 over the oncoming 13-year period.

• This is again an increase of anywhere between 3% and 8% over the 13 year period.



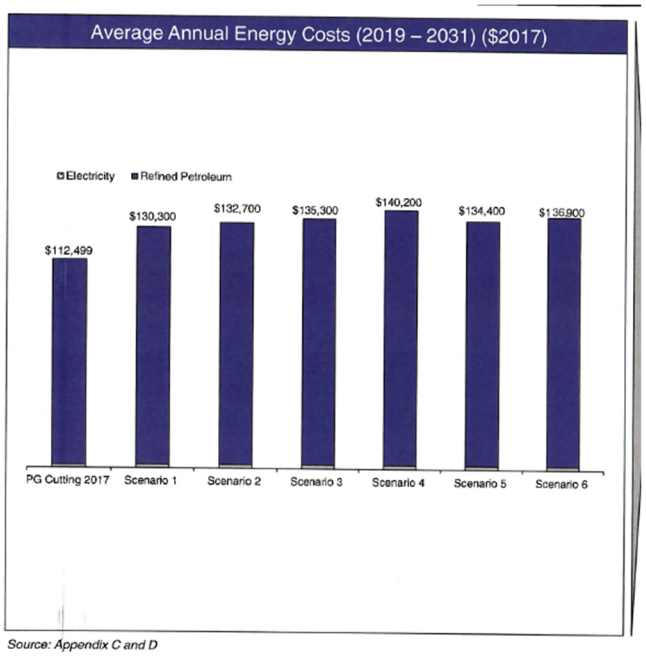
Source: Appendix C

[WSPA2]

<u>Proposed regulations are projected to increase PG Cutting Services average annual energy costs by 16% to 25%</u>

• PG Cutting Services expended over $112,000in 2017 on petroleum based fuels and electricity.

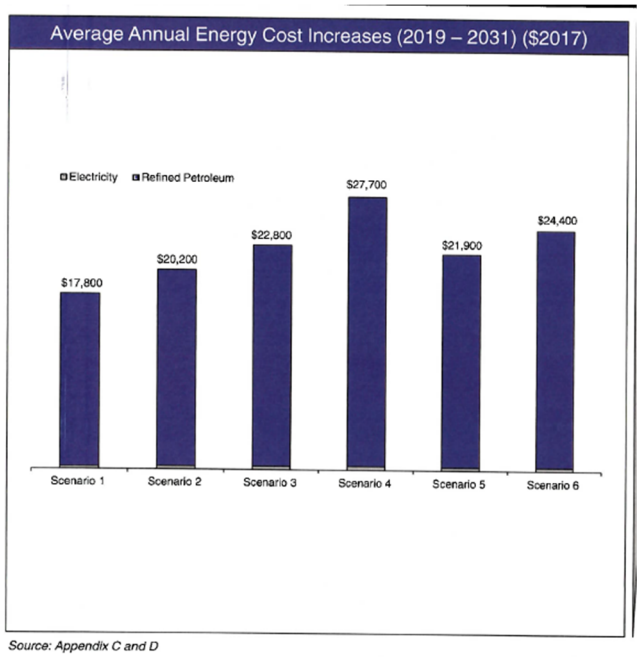
• Based on NERA's analysis of the proposed regulations, PG Cutting Services would expend between $130,000 and $140,000 a year for their total energy costs.



Source: Appendix C and D

Proposed regulations are projected to increase PG Cutting Services' average annual energy costs by $18K to $28K

• The proposed regulation generates a cost increase of anywhere between $17,800 at the low end and $27,700 at the high end per year, for the oncoming 13 year period. These changes amount to an average annual percentage increase in costs of 16% to 25%.

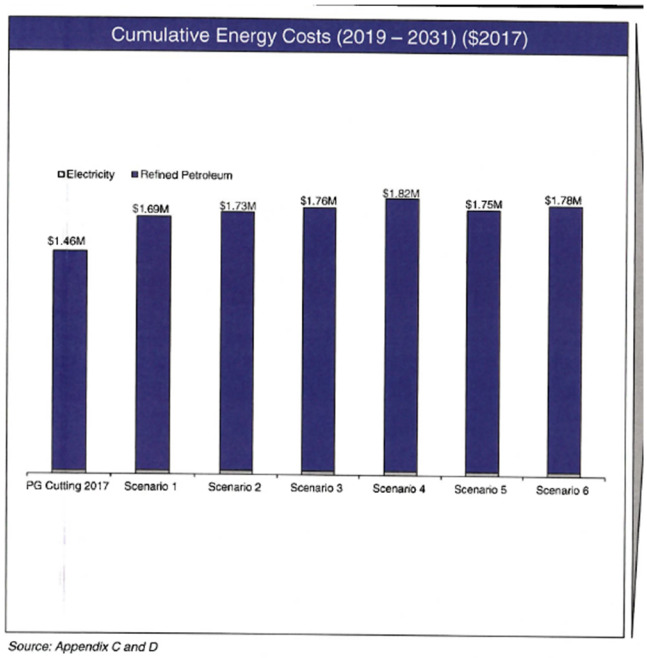


Source: Appendix C and D

Proposed regulations will increase total energy costs from $1.46M to as much as $1.82M

• Cumulatively, PG Cutting Services is expected to accrue approximately $1.46 million in energy costs from 2019 to 2031.

• The proposed regulation changes are expected to increase PG Cutting Services' cumulative costs to as much as $1.82 million.

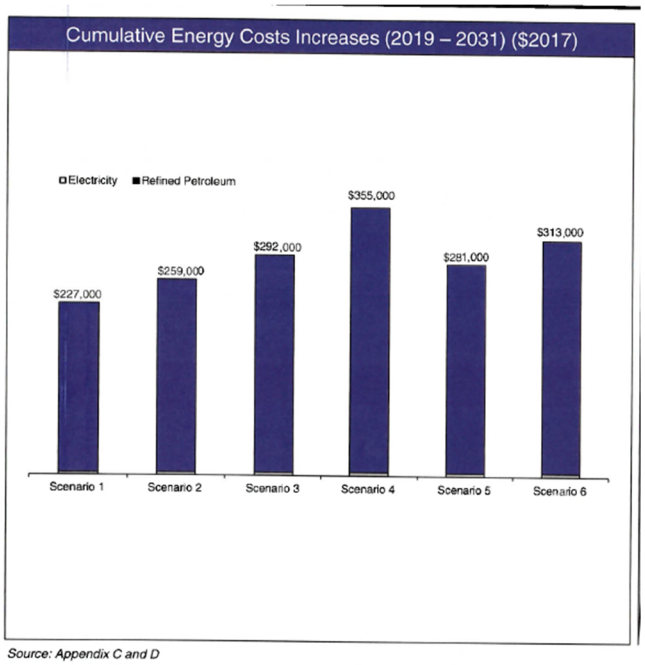


Source: Appendix C and D

Proposed regulations will increase total energy costs by $230K to $360K

• The proposed regulations are projected to increase PG Cutting Services' energy costs between $227,000 and $355,000 over the oncoming 13 year period, depending on the scenario/regulation changes that take place.

• This amounts to an increase in costs of 16% to 25% over the 13 year period.

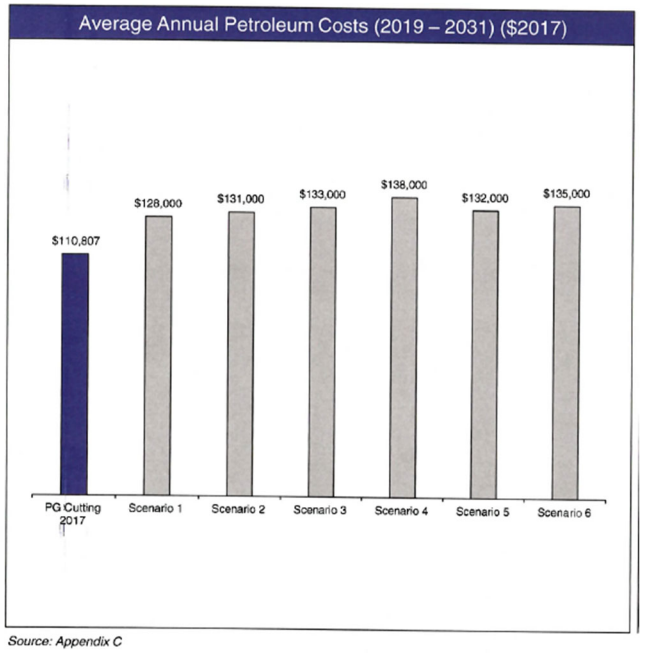


Source: Appendix C and D

Proposed regulations increase average annual petroleum costs by 16% to 25%

• In 2017, PG Cutting Services used 35,546 gallons of petroleum based products at a cost of $110,807.

• Under the established NERA cost scenarios, PG Cutting Services would pay between $128,000 and $138,000 a year for their petroleum based on 2017 usage.

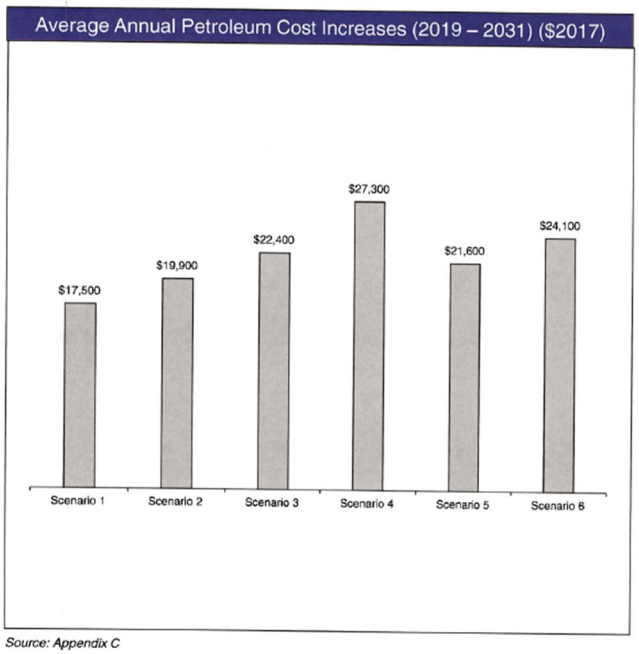


Source: Appendix C

Proposed regulations will increase PG Cutting Services' average annual petroleum costs by $17K to $27K

• The proposed regulation changes amount to an average cost increase of $17,500 to $27,300 per year, for the oncoming 13 year period.

• These changes amount to an average annual increase in costs anywhere from 16% to 25%.

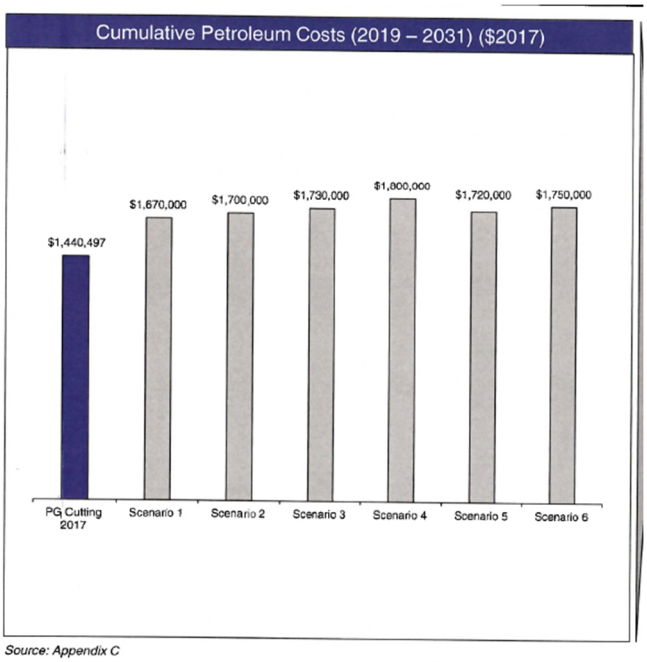


Source: Appendix C

Proposed regulations change total petroleum costs from $1.4M up to $1.8M

• PG Cutting Services' cumulative petroleum costs amount to $1,440,497 based on 2017 prices and usage for the 13 year period of 2019 to 2031.

• PG Cutting Services' costs increase to as much as $1.80M based on 2017 usage.

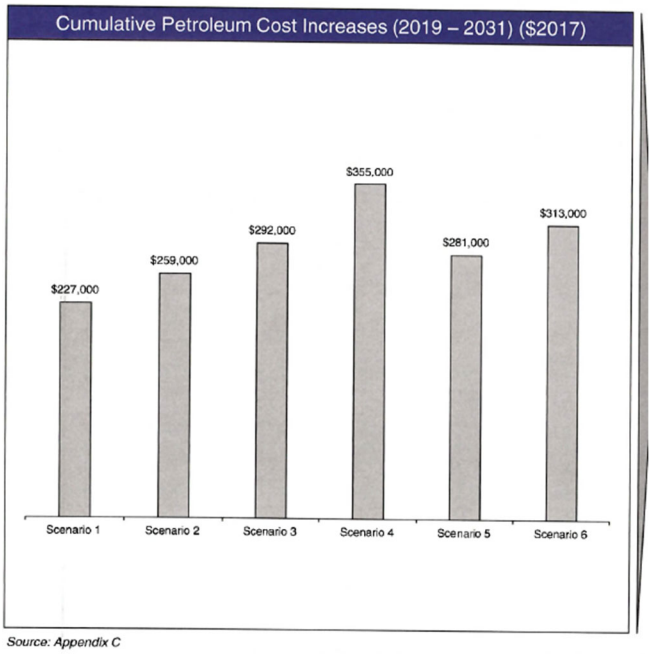


Source: Appendix C

Proposed regulations will increase total petroleum costs by $227K to $355K

• PG Cutting Services would experience a net cost increase between $227,000 and $355,000 over the 13 year period; an amount equivalent to the cost of two fully equipped truck purchases.

• This is an increase of anywhere between 16% and 25% over the 13 year period.



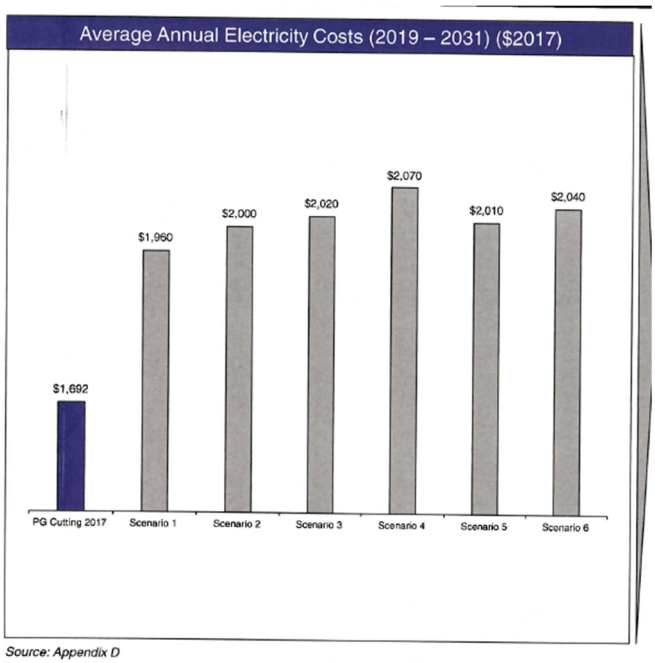
Source: Appendix C

Proposed regulations increase average annual electricity costs by 16% to 22%

• In 2017, PG Cutting Services utilized an estimated 15,634 kWh of electricity at a market cost of $1,692.

• Under the proposed regulations, PG Cutting Services would be expected to increase electricity costs to as much as $2,070 based on 2017 usage.

• Please note that electricity estimates are conservative and do not reflect PG Cutting Services' expected planned growth.

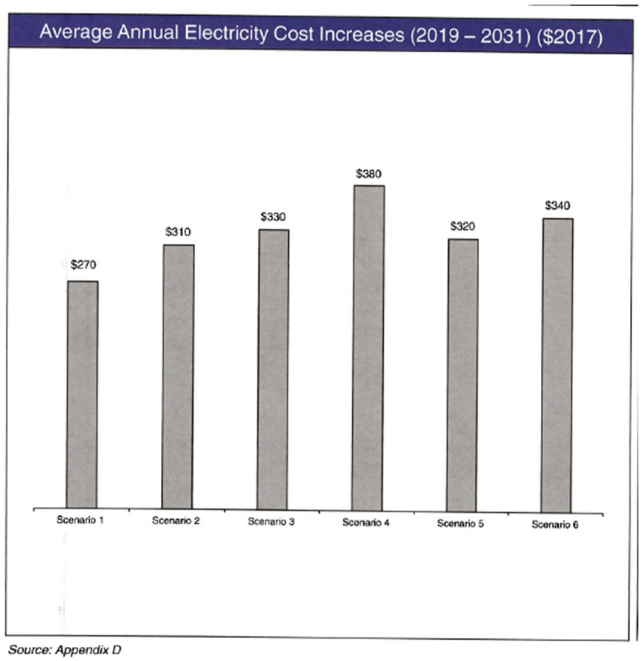


Source: Appendix D

<u>Proposed regulations will increase PG Cutting Services' average annual electricity costs by $270 to $380</u>

• The proposed regulation changes amount to an average annual cost increase ranging between $270 and $380.

• These changes amount to an average annual increase in costs of anywhere from 16% to 22%.

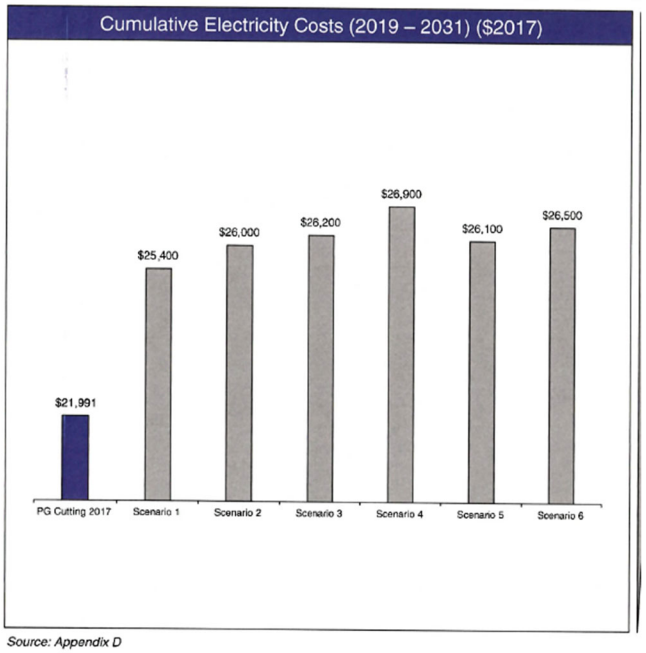


Source: Appendix D

Proposed regulations will increase total electricity costs for 2019 to 2031 from $22K up to $27K

• Based on 2017 usage and electricity prices, PG Cutting Services is expected to cumulatively expend almost $22,000 between 2019 to 2031.

• Based on the proposed regulation changes and NERA's scenario analysis, PG Cutting Services is projected to spend between $25,400 and $26,900 in electricity costs over the 13 year period.

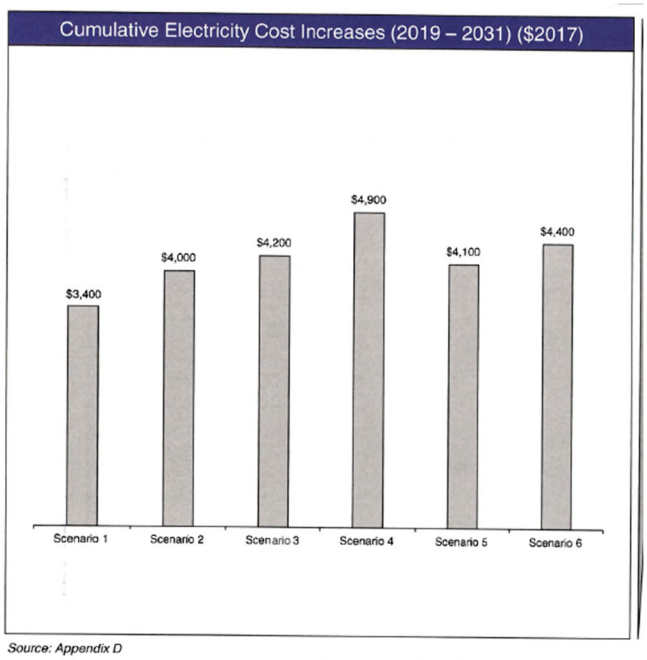


Source: Appendix D

Proposed regulations will increase total electricity costs from 2019 to 2031 by $3,400 to $4,900

• Based on the NERA analysis, electricity costs are expected to increase by as much as $4,900 over the oncoming 13-year period.

• This is again an increase of anywhere between 16% and 22% over the 13 year period.



Source: Appendix D

[WSPA3]

Conclusion

• NERA analyzed six scenarios to determine the economic impacts of different ranges of price ceilings and intermediary containment prices (speed bump prices) at which allowances would be available for sale under a separate analysis. This analysis was then used to determine the cost increases and impact that the provisions may have on the small restaurant business of Heyday Cafe.

• As a baseline, in 2017 Heyday Cafe paid $17,000 for their usage of electricity (111,600kWh). With the proposed regulations taking effect, for 2019 to 2031, Heyday Cate's costs are expected to increase to as much as $18,400 a year, amounting an average annual increase of $1,300 or 8%.

• With the proposed regulation changes taking effect, Heyday Cate's cumulative total costs are projected to reach as high as $239,000 over the 13 year analysis period, amounting to a cumulative cost increase of $17,400… [WSPA2]

• Under the provisions established in AB 398, six scenarios were analyzed to determine the economic impacts of different ranges of values of the price ceiling and intermediary

containment prices (speed bump prices) at which allowances would be available for sale.

• This analysis is used to determine the cost increases and impact that the provisions may have on the small construction business of PG Cutting Services. The assumptions tend to understate the cost impacts as PG Cutting Services and the construction industry are both growing at a fast rate.

• Costs incurred in 2017 were used as a baseline. In 2017, PG Cutting Services paid a total of $112,499 for their usage of petroleum based products (35,546 gallons) and electricity (15,634 kWh).

• With the proposed regulations taking effect, from 2019 to 2031, PG Cutting Services' costs are expected to increase up to $140,000 per year, amounting to an average annual increase of $27,700 or 25%.

• With the proposed regulation changes taking effect, PG Cutting Services' costs are projected to reach as high as $1.82 million, amounting to a cumulative cost increase of $355,000 over the 13 year term. [WSPA3] (WSPA2, WSPA3)

> **Response:** These comments refer to provisions under the Cap-and-Trade Regulation, and are therefore out-of-scope for this MRR rulemaking. Please see the Cap-and-Trade Final Statement of Reasons for responses to this comment.

VI. PEER REVIEW

Health and Safety Code Section 57004 sets forth requirements for peer review of identified portions of rulemakings proposed by entities within the California Environmental Protection Agency, including CARB. Specifically, the scientific basis or scientific portion of a proposed rule may be subject to this peer review process.

CARB determined that the rulemaking at issue does not contain scientific basis or a scientific portion subject to peer review, and thus no peer review as set for in section 57004 was or needed to be performed.