Comment 1 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Andrew Last Name: Van Horn Email Address: andy.vanhorn@vhcenergy.com Affiliation: Van Horn Consulting

Subject: Comments Concerning Cap-and-Trade Program Rules Comment:

October 5, 2015

Ms. Rajinder Sahota, Chief Climate Change Program Evaluation Branch Industrial Strategies Division California Air Resources Board 1001 I Street Sacramento, CA 95814

Re: Comments Concerning Cap-and-Trade Program Rules

I appreciate the opportunity to provide comments regarding AB 32 rule changes that are needed to improve the efficiency of the cap-and-trade program, streamline its complex rules and avoid adverse outcomes. The current Holding Limit and Limited Exemption rules may encourage allowance market manipulation, rather than preventing it, and will likely lead to increased market volatility.

As the California Carbon Allowance (CCA) supply/ demand balance tightens after 2018, allowance prices could increase very rapidly, exceeding the third-tier allowance price containment reserve price.

These effects are described in the attached paper and analysis. Post-2020 reductions will also experience volatility under current rules.

Experience from emission trading programs around the world provides several basic lessons:

1. Over-allocation of emission allowances at the beginning of cap-and-trade programs has led to low initial allowance prices, while at the same time enabling participants and regulators to refine procedures and market rules, in order to achieve long-term market goals. As emission caps become more binding, allowance prices rise.

Like other programs, California's annual caps on greenhouse gases (GHG) and allowance allocations have kept CCA prices close to each year's specified price floor.

2. Emission markets (and other thinly traded markets) have exhibited significant volatility accompanied by rapidly increasing prices that can be several times higher than prior prices. Both RECLAIM and the U.S.E.P.A. national SO2 allowance program have experienced significant price spikes. In today's cap-and-trade program California compliance entities have acquired allowance banks, subject to holding limit and limited exemption rules, in order to ensure compliance and accommodate year-to-year variability in emissions and related energy markets. Undoubtedly, between 2018 and 2030, the CCA supply/demand balance will tighten periodically and, under reasonably likely market conditions, allowance prices could rise rapidly, as has happened in other commodity markets, especially those with a limited number of participants.
3. Increasing the number of market participants and the size of the allowance markets enables more efficient allowance trading that reduces overall compliance costs and increases incentives for new and improved technologies. Of course, this is why California has

successfully expanded its program to include Ouebec and, hopefully, other future partners. This is also why the EPA's Clean Power Plan encourages regional programs. Several of ARB's existing market design elements and rules could reduce trading and cause higher, more volatile CCA prices. These are: 1. the "one-way" Compliance Account from which allowances may not be removed, reducing the supply available for trading, 2. the limited quantity of allowances in the Allowance Price Containment Reserve, potentially allowing uncapped prices, if the reserve is exhausted, and 3. rules that limit allowance ownership (Holding Limits [HL] + Limited Exemptions [LE]). Limited Exemptions are required by high-emitting firms that have annual emissions greater than the HL, but LE are created only when a firm irrevocably transfers CCAs into its Compliance Account. Experimental research and auction simulations have found that tight holding limits can substantially lower the number of allowances available for trade, lowering liquidity, increasing volatility, and impairing the ability of traders to smooth prices over time. Hence, ARB's current rules may encourage market manipulation, rather than prevent it. In order to make the AB 32 program more efficient and to provide a better model for regional applications under the Clean Power Plan, I recommend that the Air Resources Board: Add a firm price ceiling, i.e., a hard price cap, above the 1. tier 3 Allowance Price Containment Reserve price, thus, preventing unlimited price increases, if the limited number of APCR allowances is exhausted. 2. Remove the "one-way" restriction on the Compliance Account to allow trading of surplus allowances that are otherwise trapped in these accounts. This would enable more efficient trading, especially when the CCA supply/demand balance tightens. Modify the Holding Limits and Limited Exemption rules by 3. raising the fixed annual Holding Limit or adjusting it proportionally for the few well-known, closely monitored, high-emitting firms, in order to permit these firms to trade surplus allowances. The current holding limit formulas were developed and applied to markets for more widely-traded commodities, and the effects on market performance are evaluated periodically. Evaluate the use of pivotal supplier tests and concentration 4. ratios to examine current and alterative holding limits under projected emission caps and future market conditions. This will provide a greater understanding of the effects of these limits, which were derived for larger established commodity markets, and could suggest appropriate revisions to the holding limit rules. These proposed rule changes will help ensure that California's cap-and-trade program is successful and robust and will provide an improved market model that can be adopted regionally, rather than becoming a restrictive market that might fail due to particular overly prescriptive and complex rules. Sincerely, /S/

Andrew J. Van Horn, Ph.D. Van Horn Consulting www.vhcenergy.com

Attachment: www.arb.ca.gov/lists/com-attach/1-ct2016amendments-ws-UiQFYgBvV1tWOFc4.pdf

Original File Name: Van_Horn_Consulting_Comments_to_ARB_to_Improve_C&T_Program-Oct5-2015.pdf

Date and Time Comment Was Submitted: 2015-10-05 17:14:51

Comment 2 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Laura Last Name: Beane Email Address: laura.beane@iberdrolaren.com Affiliation: Iberdrola Renewables

Subject: Iberdrola Renewables' Comments - 2016 Cap-and-Trade Regulation Amendments Comment:

Iberdrola Renewables appreciates the opportunity to provide comment on potential 2016 amendments to the cap-and-trade regulation and submits the attached for your consideration.

Attachment: www.arb.ca.gov/lists/com-attach/3-ct2016amendments-ws-BmVVPANvVGoLaABu.pdf

Original File Name: Comments of Iberdrola Renewables October 2015.pdf

Date and Time Comment Was Submitted: 2015-10-06 17:02:05

Comment 3 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Ellen Last Name: Wolfe Email Address: ewolfe@resero.com Affiliation: Resero Consulting

Subject: Valley Electric Association Comments Comment:

Please find them in the uploaded file. Thanks, Ellen

Attachment: www.arb.ca.gov/lists/com-attach/4-ct2016amendments-ws-UCZdPllyBQlQNVM8.pdf

Original File Name: VEA comments on 2016 amendments.pdf

Date and Time Comment Was Submitted: 2015-10-17 13:10:57

Comment 4 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Dell Last Name: Majure Email Address: dell.majure@kcc.com Affiliation:

Subject: Kimberly-Clark Corporation Comments on Cap-and-Trade Regulation Comment:

Please see attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/5-ct2016amendments-ws-VzxdMgRoUWBVNlAi.pdf

Original File Name: Kimberly-Clark Comments - 10_19_2015.pdf

Date and Time Comment Was Submitted: 2015-10-19 08:15:54

Comment 5 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Mark Last Name: Mondik Email Address: mark.mondik@originclimate.com Affiliation: Origin Climate Inc.

Subject: Origin Climate comments on potential amendments to the Cap-and-Trade Regulation Comment:

Please find attached Origin Climate's comments on proposed or potential amendments to the Cap-and-Trade Regulation.

Attachment: www.arb.ca.gov/lists/com-attach/6-ct2016amendments-ws-BjQGMFFhB2EAKAIz.pdf

Original File Name: 2015.10.19 Comments on 2016 amendments.pdf

Date and Time Comment Was Submitted: 2015-10-19 11:10:11

Comment 6 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Andrew Last Name: Ulmer Email Address: aulmer@caiso.com Affiliation: California ISO

Subject: Public Workshop on Potential 2016 Amendments to the Cap-and-Trade Regulation and Californi Comment:

Attached are the comments of the California ISO.

Attachment: www.arb.ca.gov/lists/com-attach/7-ct2016amendments-ws-B2QFYIM+VG4BYVc4.pdf

Original File Name: California ISO Comments_Public Workshop on Cap and Trade and CPP.pdf

Date and Time Comment Was Submitted: 2015-10-19 13:10:43

Comment 7 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Derek Last Name: Benson, VP, Power De Email Address: DBenson@energysource.us.com Affiliation:

Subject: EnergySource Comments on Potential 2016 Amendments to the Cap-and-Trade Regulation Comment:

Dear Ms. Sahota,

EnergySource appreciates the opportunity to submit these comments and welcomes the opportunity to discuss our proposal for a lithium product based benchmark at greater length with the ARB staff.

Kind regards,

Derek Benson, Vice President, Power Development EnergySource

Attachment: www.arb.ca.gov/lists/com-attach/8-ct2016amendments-ws-ADFVZIZmUjFVYlNq.pdf

Original File Name: 151019_ES Comments on LI Benchmark (00328520xBA8E1).pdf

Date and Time Comment Was Submitted: 2015-10-19 13:29:24

Comment 8 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Arjun Last Name: Patney Email Address: arjun.patney@winrock.org Affiliation: American Carbon Registry

Subject: Potential 2016 Amendments to the Cap-and-Trade Regulation Comment:

Thank you for the opportunity to submit comments. Please see attached.

Kind regards, Arjun Patney Policy Director American Carbon Registry

Attachment: www.arb.ca.gov/lists/com-attach/9-ct2016amendments-ws-UjNcOQFyWFQDaQBl.pdf

Original File Name: ACR letter to ARB on Potential 2016 Amendments to Cap-and-Trade Regulation_10_19_15.pdf

Date and Time Comment Was Submitted: 2015-10-19 14:16:43

Comment 9 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Arnold Last Name: Ross Email Address: aross@recyclageeco.com Affiliation: Recyclage Ecosolution

Subject: Comments regarding potential 2016 Amendments to the Cap-and-Trade Regulation Comment:

Please see our comments into the attachment

Attachment: www.arb.ca.gov/lists/com-attach/10-ct2016amendments-ws-Uj0AZQB1BzsCZgZj.pdf

Original File Name: October,19_CARB_final.pdf

Date and Time Comment Was Submitted: 2015-10-19 14:26:08

Comment 10 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Tanya Last Name: DeRivi Email Address: tderivi@scppa.org Affiliation: SCPPA

Subject: SCPPA Comments on 2016 Cap-and-Trade Amendments Comment:

Attached are comments of the Southern California Public Power Authority on potential 2016 amendments to the Cap-and-Trade Regulation.

Attachment: www.arb.ca.gov/lists/com-attach/11-ct2016amendments-ws-USIGY1QlU3BSNQlW.pdf

Original File Name: SCPPA Comments for ARB 2016 Cap-and-Trade Amendments.pdf

Date and Time Comment Was Submitted: 2015-10-19 14:30:10

Comment 11 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Cindy Last Name: Parsons Email Address: cindy.parsons@ladwp.com Affiliation: LADWP

Subject: LADWP Comments on Cap-and-Trade Regulation 2016 Amendments Comment:

Attached are LADWP's comments on potential 2016 amendments to the Cap-and-Trade regulation. Thanks for the opportunity to comment.

Attachment: www.arb.ca.gov/lists/com-attach/13-ct2016amendments-ws-WjYCZQZjUnZXIQZZ.pdf

Original File Name: LADWP Comments on Cap-and-Trade Regulation 2016 Amendments.pdf

Date and Time Comment Was Submitted: 2015-10-19 15:06:46

Comment 12 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Katie Last Name: Sullivan Email Address: sullivan@ieta.org Affiliation: IETA

Subject: IETA Comments on Potential 2016 C&T Regulation Amendments Comment:

To Whom It May Concern,

On behalf of IETA, we appreciate this opportunity to provide initial comments on Potential 2016 Amendments to California's Cap-and-Trade Regulation.

The attached comments are structured around the following areas for consideration and potential improvement: offsets; market information & registration; and other priority items, including holding limit and RPS Adjustment Program design modifications.

If you have any questions or require further information related to IETA's comments, please contact me.

Sincerely,

Katie Sullivan Director North America, IETA Sullivan@ieta.org www.ieta.org

Attachment: www.arb.ca.gov/lists/com-attach/15-ct2016amendments-ws-WzJSMVQhBDYLUlMy.pdf

Original File Name: IETA ARB Submission_Proposed 2016 Cap-and-Trade Reg Amendments_19Oct2015.pdf

Date and Time Comment Was Submitted: 2015-10-19 15:57:10

Comment 13 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Gail Last Name: Welch Email Address: gwelch@qualcomm.com Affiliation: Qualcomm Incorporated

Subject: Qualcomm Comments on Oct 2nd ARB Workshop -Proposed Amendments to the Cap and Trade Comment:

Attached please find Qualcomm's comments dated 19/19/15 on the October 2 ARB Workshop to Discuss Proposed Amendments to the Cap-and-Trade Program.

Attachment: www.arb.ca.gov/lists/com-attach/16-ct2016amendments-ws-BndcL1U1BToHYlQ7.pdf

Original File Name: Qualcomm Comments to ARB_Cap and Trade_19Oct2015.pdf

Date and Time Comment Was Submitted: 2015-10-19 16:17:49

Comment 14 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Claire Last Name: Halbrook Email Address: cehu@pge.com Affiliation: PG&E

Subject: Utilities' Comments on RPS Adjustment Comment:

Utilities' Comments on RPS Adjustment

Attachment: www.arb.ca.gov/lists/com-attach/17-ct2016amendments-ws-VD1cNVMnVlpXMgdo.pdf

Original File Name: IOU Comments on RPS Adjustment.pdf

Date and Time Comment Was Submitted: 2015-10-19 16:28:47

Comment 15 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Brent Last Name: Newell Email Address: bnewell@crpe-ej.org Affiliation: Center on Race, Poverty & the Environmen

Subject: Scope and Schedule for Potential 2016 Amendments to the Cap-and-Trade Regulation Comment:

See attached letter dated October 19, 2015

Attachment: www.arb.ca.gov/lists/com-attach/18-ct2016amendments-ws-UGJXYQc3B2EAKFdm.pdf

Original File Name: 2015.10.19 EJ cap and trade comment letter FINAL.pdf

Date and Time Comment Was Submitted: 2015-10-19 16:29:45

Comment 16 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Mikhael Last Name: Skvarla Email Address: mikhael_skvarla@gualcogroup.com Affiliation: CCEEB/The Gualco Group, Inc.

Subject: CCEEB's CnT Comments Comment:

Good afternoon.

Attached you will find a letter from our client, the California Council for Environmental and Economic Balance ("CCEEB") regarding potential amendments to the Cap-and-Trade Program.

Please do not hesitate to contact us if you have any questions or need further information.

Thank you,

Mik

Mikhael Skvarla The Gualco Group, Inc. 500 Capitol Mall, Suite 2600 Sacramento, CA 95814-4752 o: 916.441.1392 c: 916.203.0443 @gualcogroup www.GualcoGroup.com

Attachment: www.arb.ca.gov/lists/com-attach/19-ct2016amendments-ws-UTJTO1MmVVIXYAAx.pdf

Original File Name: CnT_111(d)_final_10-19.pdf

Date and Time Comment Was Submitted: 2015-10-19 16:35:33

Comment 17 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Susie Last Name: Berlin Email Address: berlin@susieberlinlaw.com Affiliation: Northern California Power Agency (NCPA)

Subject: NCPA Comments on October 2 Workshop Comment:

Attached please find the Northern California Power Agency (NCPA) comments on the Kick-Off for 2016 Cap-and-Trade Program Amendments Workshop.

Attachment: www.arb.ca.gov/lists/com-attach/20-ct2016amendments-ws-UTJWPwFtUW9QMwRq.pdf

Original File Name: comments re October 2 Workshop (10-19-15).pdf

Date and Time Comment Was Submitted: 2015-10-19 16:48:55

Comment 18 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Martin Last Name: Hopper Email Address: berlin@susieberlinlaw.com Affiliation: M-S-R Public Power Agency

Subject: M-S-R Comments re RPS Adjustment/Oct 2 Workshop Comment:

Attached please find the M-S-R Public Power Agency Comments on the October 2 Kick-Off for 2016 Cap-and-Trade Program Amendments Workshop and the RPS Adjustment.

Attachment: www.arb.ca.gov/lists/com-attach/21-ct2016amendments-ws-Am9XfFEjBHoCdlUK.pdf

Original File Name: M-S-R comments re Oct 2 workshop - RPS adjustment (10-19-15).pdf

Date and Time Comment Was Submitted: 2015-10-19 16:55:04

Comment 19 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Andrew Last Name: Mayer Email Address: AMayer@bdlaw.com Affiliation: Powerex

Subject: Powerex Comments on Potential Changes to Cap-and-Trade Program Comment:

To the various ARB staff-members identified as contacts on ARB's October 2, 2015 PowerPoint presentation re the Cap-and-Trade Program:

I write on behalf of Powerex Corp. (Powerex) in response to ARB's call for stakeholder comments in its October 2, 2015 workshop on potential changes to the Cap-and-Trade Program. Powerex offers the attached comments focused on potential changes to regulatory provisions bearing on the RPS Adjustment and the reporting of direct deliveries of electricity. Powerex sought to upload these comments to the web portal on ARB's website this afternoon shortly after 5 pm, but found that the web portal for comment submission had been taken down. We would very much appreciate if one of the staff-members in this group please confirm receipt and acceptance of the attached comments on behalf of ARB.

Very best regards, Drew Mayer

Attachment: www.arb.ca.gov/lists/com-attach/22-ct2016amendments-ws-UmBQZIZmUDYKIIVk.pdf

Original File Name: 2015.10.19 FINAL Powerex Comments on Potential CARB Changes to CTR and MRR re RPS Adjustment.pdf.pdf

Date and Time Comment Was Submitted: 2015-10-21 08:56:24

Comment 20 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

This comment was posted then deleted because it was unrelated to the Workshop item or it was a duplicate.

Comment 21 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Clare Last Name: Breidenich Email Address: cbreidenich@aciem.us Affiliation: WPTF

Subject: WPTF Comments on 2016 Cap and Trade Amendments and Clean Power Plan Compliance Comment:

See attached

Attachment: www.arb.ca.gov/lists/com-attach/24-ct2016amendments-ws-AjNUYgEtUDFRZwgl.pdf

Original File Name: 10-20-15 WPTF Comments to CARB on possible Cap and Trade Amendments and the CPP.pdf

Date and Time Comment Was Submitted: 2015-10-21 08:56:24

Comment 22 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Ken Last Name: Nold Email Address: krnold@TID.ORG Affiliation:

Subject: Comments on the Potential 2016 Amendments to the Cap-and-Trade Regulation Comment:

See attached comments from the Turlock and Modesto Irrigation $\ensuremath{\mathsf{Districts}}$.

Attachment: www.arb.ca.gov/lists/com-attach/25-ct2016amendments-ws-VThVOlw5VFhVDAVx.docx

Original File Name: MID TID ARB CNT Workshop Comments.docx

Date and Time Comment Was Submitted: 2015-10-22 15:35:14

Comment 23 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Tamara Last Name: Rasberry Email Address: trasberry@semprautilities.com Affiliation:

Subject: Comments for Oct 2 Workshop re Potential Amendments to Cap and Trade Regulations 201 Comment:

Please see comments filed on behalf of the Sempra Utilities.

Attachment: www.arb.ca.gov/lists/com-attach/26-ct2016amendments-ws-UCMAY1Y6V3QBdQBh.pdf

Original File Name: Sempra Utilities Comments_ARB Cap and Trade Workshop October 2 2015.pdf

Date and Time Comment Was Submitted: 2015-10-26 12:57:21

Comment 24 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Catherine Last Name: Reheis-Boyd Email Address: ombcomm@arb.ca.gov Affiliation: WSPA

Subject: WSPA comments on October 2, 2015 Discussion Workshop for Cap-and-Trade Regulation Comment:

See attached

Attachment: www.arb.ca.gov/lists/com-attach/27-ct2016amendments-ws-BnFTJlcmADJQCVQ3.pdf

Original File Name: WSPA Comments on Discussion Workshop for Cap-and-Trade Regulation 2016 Amendments..pdf

Date and Time Comment Was Submitted: 2015-10-26 13:52:24

Comment 25 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Mark C. Last Name: Krausse Email Address: ombcomm@arb.ca.gov Affiliation: PG&E

Subject: PG&E's Comments on Potential 2016 Amendments to the Cap-and-Trade Regulation Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/28-ct2016amendments-ws-ViYHZgdjAw9SNwNs.pdf

Original File Name: PGE Comments on Oct 2 CT Workshop.pdf

Date and Time Comment Was Submitted: 2015-10-27 08:27:45

Comment 26 for Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) - 1st Workshop.

First Name: Derek Last Name: Six Email Address: dsix@climeco.com Affiliation: ClimeCo

Subject: Suggested Revision to ODS Protocol Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/29-ct2016amendments-ws-VzQFbwRsVWtWNVAz.pdf

Original File Name: ClimeCo Comments Regarding the ODS Protocol and Treatment of Foam Sources.pdf

Date and Time Comment Was Submitted: 2015-11-10 12:36:48

There are no comments posted to Cap-and-Trade Regulation 2016 Amendments (ct2016amendments-ws) that were presented during the Workshop at this time.