

Comment 1 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Kieran

Last Name: Mitchell

Email Address: Kieran@cariboubiofuels.com

Affiliation: CEO Caribou Biofuels

Subject: 2030 Dairy and Livestock Sector Methane Emissions Target

Comment:

Hello,

There is a technology that support your goal. It is an IRG technology that is currently funded by Cal Fire and the NSF. It takes woody biomass, agricultural waste including very wet dairy waste.

1. Biochar from woody material has been approved in Europe and I believe California, and fed as a food supplement (<1%) and significantly reduce their methane emissions.

Reference: The use of biochar in animal feeding
Hans-Peter Schmidt¹, Nikolas Hagemann^{1,2}, Kathleen Draper³ and Claudia Kammann⁴, 2019

2. Reference Inclined Rotary Gasifier can make biochar and energy and "Biochar as a manure additive can be effective on compost manure (up to 82.4% reduction)", CARB Report January 2021-below.f

Reference:
STRATEGIES TO REDUCE METHANE EMISSIONS FROM ENTERIC AND LAGOON SOURCES
(Contract 17RD018)
Prepared for:
State of California Air Resources Board
January 8, 2021

3. There are many other areas in the dairy industry to use this technology

Reference:

The Potential for Biochar to Enhance Sustainability in the Dairy Industry
Written by:
Kathleen Draper, Ithaka Institute for Carbon Intelligence
Shannan Sweet, Cornell University
2020

This Mobile Inclined Rotary Gasifier technology can accomplish many goals including

1. Convert problem materials, that cause emissions, even if very wet, to a biofuel, biochar while sequestering carbon.

The emissions are close to zero, carbon is sequestered and the process can be financially beneficial.

See 3 referenced papers attached.

Attachment: www.arb.ca.gov/lists/com-attach/2-draft-dl-analysis-ws-U2BQCVYIBDJSMgVg.pdf

Original File Name: 3 Referenced papers.pdf

Date and Time Comment Was Submitted: 2021-06-15 21:39:34

No Duplicates.

Comment 2 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Morten

Last Name: Toft

Email Address: mt@biocover.dk

Affiliation: BioCover A/S

Subject: Application for new technology under AMMP program

Comment:

We have invested significant time in preparing an application for the use of acidification technology under AMMP

We have received a rejection of approval

We have responded with comments to all reasons for rejection, but we have not received any response to this clarification.

This is not very professional as all rejection points are clearly based on wrong assumptions

We look forward to a reevaluation based on clarification

Morten Toft

CEO

BioCover

Attachment: www.arb.ca.gov/lists/com-attach/3-draft-dl-analysis-ws-UTRVJQBgAj1SIQBh.pdf

Original File Name: Evaluation of use of Acidification.pdf

Date and Time Comment Was Submitted: 2021-06-16 01:02:51

No Duplicates.

Comment 3 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Peter

Last Name: Williams

Email Address: peter.williams@advantecassociates.com

Affiliation: Advantec Associates Inc. / Feedworks USA

Subject: Comment on Progress Toward Methane Emissions Target
Comment:

See comment attached.

Attachment: www.arb.ca.gov/lists/com-attach/5-draft-dl-analysis-ws-BXdTMANxAyBQOQVr.pdf

Original File Name: Response to CARB Emission Targets Progress Document.pdf

Date and Time Comment Was Submitted: 2021-07-08 12:59:50

No Duplicates.

Comment 4 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Matias

Last Name: Sjogren

Email Address: msjogren@biofiltro.com

Affiliation: BioFiltro USA

Subject: Comments from BioFiltro attached (Vermifiltration)

Comment:

Comments are on the PDF document attached.

Attachment: www.arb.ca.gov/lists/com-attach/6-draft-dl-analysis-ws-UTNcPAdZV2cEbQJv.pdf

Original File Name: BF Comments on CARB July 2021.pdf

Date and Time Comment Was Submitted: 2021-07-13 10:05:06

No Duplicates.

Comment 5 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Jeffrey

Last Name: Creque

Email Address: jcreque@carboncycle.org

Affiliation: Carbon Cycle Institute

Subject: Comment on Draft Analysis- Dairy and Livestock
Comment:

The Carbon Cycle Institute appreciates the opportunity to comment on the Draft Analysis of Progress toward achieving the 2030 Dairy and Livestock Sector Methane Emissions Target.

Please see our detailed comments, attached.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/8-draft-dl-analysis-ws-B2QGYwBoAg4DZgFu.pdf

Original File Name: CCI_Comment on CARB Draft Dairy Analysis.pdf

Date and Time Comment Was Submitted: 2021-07-13 12:45:00

No Duplicates.

Comment 6 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Sam

Last Name: Wade

Email Address: sam@rngcoalition.com

Affiliation: Coalition for Renewable Natural Gas

Subject: RNG Coalition Comments on Dairy and Livestock Report
Comment:

Please see our attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/9-draft-dl-analysis-ws-AjBRZlBhAGRRZgM3.pdf

Original File Name: 210714 CARB Progress Toward Achieving Dairy Targets - RNG Coalition Comments.pdf

Date and Time Comment Was Submitted: 2021-07-14 10:12:59

No Duplicates.

Comment 7 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Lesley

Last Name: Fleischman

Email Address: lfleischman@catf.us

Affiliation: Clean Air Task Force

Subject: Comments on 2030 Dairy and Livestock Sector Methane Target--CATF, IGSD, CRP, EIA

Comment:

Thank you for accepting these comments submitted by Clean Air Task Force (CATF), the Institute for Governance & Sustainable Development (IGSD), the Climate Reality California State Coalition, and the Environmental Investigation Agency (EIA) on the Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target. California has been a leader in short-lived climate pollutants (SLCPs) and is viewed as such throughout the world. Because of that, California must maintain its leadership by demonstrating how to effectively reduce SLCPs from the dairy and livestock sector.

Attachment: www.arb.ca.gov/lists/com-attach/10-draft-dl-analysis-ws-AWJWPwNvWWcAY1I8.pdf

Original File Name: Comments on Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target (CATF, IGSD, CRP, EIA)2.pdf

Date and Time Comment Was Submitted: 2021-07-14 11:19:17

No Duplicates.

Comment 8 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Brandon

Last Name: Price

Email Address: brandon@maasenergy.com

Affiliation:

Subject: Maas Energy Works Comment Letter to Dairy Methane Draft Analysis
Comment:

Attached is Maas Energy Works' comment letter in response to the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target.

Attachment: www.arb.ca.gov/lists/com-attach/11-draft-dl-analysis-ws-BmtUN1chVVISNwhp.pdf

Original File Name: MEW CARB Dairy Analysis Comment Letter 20211407.pdf

Date and Time Comment Was Submitted: 2021-07-14 11:56:09

No Duplicates.

Comment 9 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Andy

Last Name: Foster

Email Address: andy.foster@aemetis.com

Affiliation: Aemetis Biogas LLC

Subject: Comments on Draft Analysis

Comment:

Please see Aemetis's comments attached.

Thank you.

Attachment: www.arb.ca.gov/lists/com-attach/12-draft-dl-analysis-ws-UTJdNFE9UmwDYFM9.pdf

Original File Name: Comments on Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target 20210714 FINAL.pdf

Date and Time Comment Was Submitted: 2021-07-14 12:55:43

No Duplicates.

Comment 10 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: ISABELLE
Last Name: BOTTICELLI
Email Address: ibotticelli@mootral.com
Affiliation:

Subject: Comments on the draft 2030 dairy & livestock
Comment:

Dear All,

Thank you for giving us the opportunity to contribute to the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target.

We, at Mootral, took quality time to comment the very professional draft. You will find here attached our comments directly in your document as a pdf file as well as a list of our scientific studies as of May 2021.

We concluded that the knowledge of our solution, Mootral Ruminant, needs some update. And we are very open to continue the conversation with and identify how we can best support the farmers in the US.

With our best regards,

Isabelle Botticelli

Chief Operating Officer @ Mootral

Attachment: www.arb.ca.gov/lists/com-attach/13-draft-dl-analysis-ws-VjIAdANjV2IFdwgl.pdf

Original File Name: draft-2030-dairy-livestock-ch4-analysis_FINAL feedback.pdf

Date and Time Comment Was Submitted: 2021-07-14 13:40:40

No Duplicates.

Comment 11 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Brian S.

Last Name: Biering

Email Address: bsb@eslawfirm.com

Affiliation: Dairy Environmental Justice Fund

Subject: Comments on Analysis of Progress toward 2030 Dairy/Livestock Methane Emissions Target

Comment:

Please see attached comments.

Attachment: www.arb.ca.gov/lists/com-attach/14-draft-dl-analysis-ws-AWUCZQRsACFXKFMM.pdf

Original File Name:

Dairy_Environmental_Justice_Fund_Comments_on_Draft_SB_1383_CARB_Analysis_210714(00551408xBA8E1).pdf

Date and Time Comment Was Submitted: 2021-07-14 13:31:42

No Duplicates.

Comment 12 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Patrick

Last Name: Serfass

Email Address: pserfass@ttcorp.com

Affiliation: American Biogas Council

Subject: Comments on Draft Analysis of Progress toward Achieving the 2030 Methane Emissions Target

Comment:

See attached comment.

Attachment: www.arb.ca.gov/lists/com-attach/15-draft-dl-analysis-ws-AmNXMIiwU18HYgRr.pdf

Original File Name: ABC_Comments_CARB_draft_dl_analysis.pdf

Date and Time Comment Was Submitted: 2021-07-14 14:19:36

No Duplicates.

Comment 13 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Andrew

Last Name: Craig

Email Address: acraig@calbioenergy.com

Affiliation: California Bioenergy

Subject: CalBio Comments on Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestoc

Comment:

Please see attached file

Attachment: www.arb.ca.gov/lists/com-attach/16-draft-dl-analysis-ws-WzgAZwR3VGUEXVcz.pdf

Original File Name: CARB Draft Analysis of 2030 Target Progress_CalBio Comments_final.pdf

Date and Time Comment Was Submitted: 2021-07-14 15:12:10

No Duplicates.

Comment 14 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Jeanne

Last Name: Merrill

Email Address: jmerrill@calclimateag.org

Affiliation: CA Climate and Agriculture Network

Subject: Dairy Methane Report - Need for Additional Analysis

Comment:

Please find attached our comments on the draft report. We are seeking a much more rigorous analysis of alternative manure management practices as part of the final report.

Attachment: www.arb.ca.gov/lists/com-attach/17-draft-dl-analysis-ws-BmIGYQRsVncKdQJd.pdf

Original File Name: Dairy Methane Report Comments - 7-14-21.pdf

Date and Time Comment Was Submitted: 2021-07-14 15:06:59

No Duplicates.

Comment 15 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Paul

Last Name: Sousa

Email Address: paul@wudairies.com

Affiliation: Western United Dairies

Subject: Western United Dairies comments

Comment:

Please see the attached comment letter.

Attachment: www.arb.ca.gov/lists/com-attach/19-draft-dl-analysis-ws-UjNSJIEyBwsGMQU2.pdf

Original File Name: ARB 1383 Analysis Comment ltr-WUD.pdf

Date and Time Comment Was Submitted: 2021-07-14 15:41:47

No Duplicates.

Comment 16 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Dani

Last Name: Diele

Email Address: dani@agcouncil.org

Affiliation: Agricultural Council of California

Subject: Comments on the Draft Analysis

Comment:

See attachment.

Attachment: www.arb.ca.gov/lists/com-attach/20-draft-dl-analysis-ws-VjdQMVU3VmpSIVA+.pdf

Original File Name: AgCouncilComments_DairyEmissionReductions_July2021.pdf

Date and Time Comment Was Submitted: 2021-07-14 15:20:21

No Duplicates.

Comment 17 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Graham

Last Name: Noyes

Email Address: graham@noyeslawcorp.com

Affiliation: Noyes Law Corporation

Subject: Economically Viable Methane Reduction for Small- and Medium-sized Dairies
Comment:

Attached please find the comment letter of my client, CleanFuture, proposing the establishment of a dynamic efficiency standard to enable CARB to work with the dairy sector to fulfill SB 1383 methane reduction requirements with economically viable options for small and medium sized dairies.

Please contact me for any questions or to schedule a meeting regarding this recommendation. Thank you for the opportunity to submit comments.

Best Regards,

Graham Noyes

Noyes Law Corporation for CleanFuture, Inc.

Attachment: www.arb.ca.gov/lists/com-attach/21-draft-dl-analysis-ws-UTJXPQFIUmAEbAVj.pdf

Original File Name: CleanFuture 1383 Report Comment to CARB 14 July 2021 final.pdf

Date and Time Comment Was Submitted: 2021-07-14 15:55:00

No Duplicates.

Comment 18 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Charles

Last Name: Delgado

Email Address: cdelgado@suscon.org

Affiliation: Sustainable Conservation

Subject: SusCon Comment Letter

Comment:

Please find our comments on the Analysis attached.

Attachment: www.arb.ca.gov/lists/com-attach/22-draft-dl-analysis-ws-BnUHdFUnUmJROAZo.pdf

Original File Name: SusCon SB 1383 Analysis Comment Letter 7-14-21.pdf

Date and Time Comment Was Submitted: 2021-07-14 16:13:52

No Duplicates.

Comment 19 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Alison

Last Name: Marklein

Email Address: alison.marklein@gmail.com

Affiliation: UC Riverside

Subject: Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy/Livestock CH₄

Comment:

Page 7: However, solid separation technologies such as mechanical separators may have limited impact due to the use of separated solids as bedding, which then re-enter the liquid manure pathway (e.g. See Marklein et al. 2021, ESSD).

There are also technical barriers to quantifying reductions in anaerobic digester projects.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2021-07-14 16:00:56

No Duplicates.

Comment 20 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Nick

Last Name: Facciola

Email Address: nick@3degrees.com

Affiliation: 3Degrees Group, Inc.

Subject: AMMP is not difficult to quantify; Dairy-to-EV pathways discounting actual CH₄ reductions

Comment:

Please see attached how we counter a point in the letter about AMMP being difficult to quantify, and how certain LCFS pathways are artificially discounting methane emission reductions and can be modified to better account for actual reductions in the State.

Attachment: www.arb.ca.gov/lists/com-attach/24-draft-dl-analysis-ws-V2QCYFQwV2MHc1I3.pdf

Original File Name: 3Degrees draft-dl-analysis comments.pdf

Date and Time Comment Was Submitted: 2021-07-14 16:35:52

No Duplicates.

Comment 21 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Michael

Last Name: Boccadoro

Email Address: mboccadoro@westcoastadvisors.com

Affiliation:

Subject: Dairy Cares Comments on Draft Analysis of Dairy/Livestock Sector Methane Emissions Target

Comment:

see comments attached

Attachment: www.arb.ca.gov/lists/com-attach/26-draft-dl-analysis-ws-BWFdOIE5VncDfFAP.zip

Original File Name: Dairy Cares Comments on Draft SB 1383 CARB Analysis 210714 (00551427xBA8E1) (00551471xBA8E1).zip

Date and Time Comment Was Submitted: 2021-07-14 16:58:04

No Duplicates.

Comment 22 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Julia

Last Name: Jordan

Email Address: jjordan@leadershipcounsel.org

Affiliation: Leadership Counsel for Justice & Account

Subject: Dairy digesters are not the solution to our methane problem

Comment:

Good afternoon,

Please find attached a letter from 9 environmental justice, food systems, and air quality organizations who are deeply concerned with the 1383 Analysis' approach to evaluating dairy digesters and biogas.

Please let us know if we can meet to discuss further or if you have any questions.

Best,

Julia Jordan

Policy Coordinator

Leadership Counsel for Justice & Accountability

1107 9th Street, Suite 1011, Sacramento, CA 95814

jjordan@leadershipcounsel.org

Pronouns: they/theirs or she/hers

Attachment: www.arb.ca.gov/lists/com-attach/27-draft-dl-analysis-ws-UjFSNQZ1UWBXDgY3.pdf

Original File Name: CARB 1383 Analysis Draft Letter_July 14.pdf

Date and Time Comment Was Submitted: 2021-07-14 17:00:21

No Duplicates.

Comment 23 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Michael

Last Name: Coates

Email Address: mcoates@mightycomm.com

Affiliation: Oberon Fuels, Inc.

Subject: Oberon Fuels Comments

Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/28-draft-dl-analysis-ws-AHNVMVcJUjAHMlBo.pdf

Original File Name: SB 1383 Comments Oberon Fuels.pdf

Date and Time Comment Was Submitted: 2021-07-16 09:31:16

No Duplicates.

Comment 24 for Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) - 1st Workshop.

First Name: Patrick

Last Name: Wood

Email Address: patrick@agmethaneadvisors.com

Affiliation: Ag Methane Advisors, LLC

Subject: Comments from Ag Methane Advisors

Comment:

See attached.

Attachment: www.arb.ca.gov/lists/com-attach/29-draft-dl-analysis-ws-AmNdPFI+WG5QIIA4.pdf

Original File Name: AgMethane Comments Re SB1383 DRAFT progress report.pdf

Date and Time Comment Was Submitted: 2021-07-16 16:32:28

No Duplicates.

There are no comments posted to Comments on the Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Methane Emissions Target (draft-dl-analysis-ws) that were presented during the Workshop at this time.