# Comment 1 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 1st Workshop.

First Name: Harvey
Last Name: Eder
Email Address: harveyederpspc@yahoo.com
Affiliation: Self & PSPC Public Solar Poweer Coaliti

Subject: Immediate Total Solar Conversion & GWP 105 Dirty Gas
Comment:

Howdy CARB folks,

The total 3 comments (which were purged by CARB staff citing an explaniary email which was never sent to me HE self and PSPC) of Harvey Eder for Self and PSPC Public Solar Power Coalition are incorporated by reference in this LCFS proceeding as well as all of the correspondence between Eder as Self and PSPC Public Solar Power Coalition (example emails and submittals with John Courtis Mgr LCFS program and other carb staff on LCFS and the analysis of corrected 100 plus grams equilivant grams per mega joul for natural ( green washing ) it's reality Dirty Benzene and Formaldyhyde and 100 plus GWP emitting Dirty Gas ( carcinagins and toxins plus fine and ultra fine PM +- 2.5 etc less than 1 or .1 etc.) going back 5 years and before in the ZEV Electric /Solar Electric as well as the Solar Conversion White Paper reviewed by SCAQMD and CARB staff from 10 years ago. The 5 year review of the Scoping Plan that was due on August 5 and continued last listed submittal was August 26 and another will be made today August 31, 2013.

What is needed is an Immediate Total Solar Conversion plan on a 5,10 and 20 year time frame this includes the entire record of the SCAQMPlan Dec 2012 and the Cases SC119641,42, and 57 Eder v. SCAQMD filed in the Los Angeles Cuperior Court January 4 &7 2013 for the Dec 7 , 2012 passed and submitted to CARB and pasted on Januiary 25, 2013 & submitted to Fed EPA the Ca State SIP etc.. The sun makes the wind blow , the water flow and the plants grow or it can be used directly. It's the engine or our ecosystem , the way the world works.

What needs to be included is the LCFS for solar battery electric, solar hydrogen direct and or in hybrids and hydrogen ( separting H and O through electrolsys ) using solar fuel cells etc..

This propensity to use gas as a bridge fuel ( as it is said a bridge to no where like the one proposed in Alaska a few years ago the Sierra Cklub accepted $26 million from Chesapeak Energy Nat GAS) . The fracdking issue was brought to staff 2 plus years ago 88% of gas used in Ca. is fracked from out of State, Howarth Et. Al 2010,2011, 2012 2013 gas has a higher gwp than oil or coal Cornell University 6-12 % emitted recent Utah study etc. GWP global warming potential of 105.

As one critic cited CARB and the local Districts have drunk the "Natural Gas" kool-aid and during this crutial next 20 years with the methane hydrates being almost emitted in the artic ( a substantial negative feed back loop for more methane ch4 and etc.. and ch4 more being emitted over the life of a cehicle Wash DC 2006Nrel U of Wa. Metro Buses and 2010 study of City of LA Nat Gas trash trucks).

Better end this now why is there a 60 min limit ?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2013-08-31 11:17:19

No Duplicates.

## Comment 2 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Vitor
Last Name: Caetano
Email Address: vitor.caetano@odebrecht.com
Affiliation: Odebrecht Agroindustrial

Subject: Molasses Ethanol (ETHM004)
Comment:

Dear Srs.,

1. We think there is a misunderstanding in the proposition of the value for the LUC based emissions for the molasses based ethanol (..."The proposed value consists of the Brazilian value of 46 g CO2e/MJ mutiplied by the proportion of fermentable sugars in sugar cane juice that ends up in the molasses used as feedstock for the process. That proportion is the mass allocation factor of 0.34".) The initial assumptions in the document can not support this proposition. To put it simply, total LUC emissions are directly related to the area displaced by sugarcane; the initial assumptions lead to 34% of the TRS being allocated to molasses, leading to 34% of total cane being allocated to molasses, and so 34% of the total area; and consequently 34% of the total LUC associated emissions.

But of course we would only produce 34% of the ethanol we coud produce with the same total cane (autonomous distillery). So, the LUC emissions (for molasses production) come down to 34% of the total, but also the ethanol production; and the ratio g CO2e/MJ ethanol remains the same (46, at least until changed by ARB). But of course this would be done to all sugar cane ethanol.
Just remainding the "initial assumptions" used:
" The allocation method chosen... the total upstream and sugar production emissions are allocated on the basis of the ratio of the total reducing sugars (TRS) in the molasses... to the TRS entering the sugar process for each ton of sugarcane that enters the factory gate".
" the (bagasse) credit is... assumed to be proportional to the fraction of TRS in ...molasses to the total amount of TRS in sugar cane juice."
2. Certainly a minor point (with respect to to the first): in this process, the flow diagram proposed is correct in showing that all the juice goes to the sugar factory and trough the whole sugar production process (although the TRS ratios indicate high sugar concentration in the molasses, not exhausted molasses). So, no juice may by-pass the sugar production and be sent to the distillery.

Thank you for the attention.

Best regards.

Vitor Caetano

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2013-12-23 03:08:59

No Duplicates.

## Comment 3 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Rafael
Last Name: Souza
Email Address: rafael.ruas@outlook.com
Affiliation:

Subject: Raízen Molasse Ethanol
Comment:

Raízen COPI's flow diagram shown in Third Party Engineering Review document shows molasse AND clarified juice as feedstock for its ethanol, but they reached CI 14.67 saying that they just use molasse.
I would like to know if now they are using just molasse to produce ethanol or if they will sell with this CI just the ethanol ratio produced by molasse, ignoring juice production for LCFS.

Thank you in advance for clarifying.
Rafael Souza.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-02 13:14:38

No Duplicates.

# Comment 4 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: marcia
Last Name: fonte
Email Address: marciafonte@comcast.net
Affiliation:

Subject: New Molasses Pathway to Raizen Costa Pinto of 14.93 gCO2e/MJ
Comment:

CARB's LCFS program has been a terrific instrument for promoting the development of new state of the art technologies to produce lower carbon fuels. We have seen tremendous investment on breakthrough technologies not only for the production of the biofuel itself but also, and by no means less important, on the agricultural practices and technologies. The benefits of these advanced methods of making fuels have had an immense impact on the environment and overall economies around the world, creating jobs and making the world a cleaner and safer place to live. That being said, we were very surprised to learn late in December that CARB was now recommending the approval of a new pathway for a really low CI of 14.93 gCO2e/MJ to an old sugar mill that have invested little to none in improving their carbon footprint throughout the years.

We would like to kindly ask CARB whether it is saying that it is best for an investor interested in supplying low carbon fuels to the California market to acquire a 4 decades old sugar mill in South America than it is to invest on the development of breakthrough technology? Cellulosic, for instance? Is CARB also saying with this recommendation that the production of ethanol from Brazil's older sugar mills that have been producing ethanol from molasses since the start of the ethanol program in the 70's better for the environment than the new state of the art, also sugarcane based, ethanol only facilities, fully mechanized and co-generating in the same region? Well, not only better, but arguably 4 times better considering a CI 58.4 vs. the 14.98 being recommended?

The truth is the molasses in Brazil has not been a by-product of sugar for decades as it still may be the case in other parts of the world. Brazilian sugar mills like Costa Pinto that requested this specific pathway have been making ethanol for decades alongside with sugar, adjusting their percentages according to the market incentives of the moment. Moreover this statement is true for a vast majority of mills in Brazil, in particular the older sugar mills in the state of São Paulo, that would become the preferred choice of ethanol for California if CARB approves this pathway. Let's not kid ourselves, the carbon to produce the ethanol from this molasses is there just like it is with other sugar cane mills, so basically we would just be saying that the sugar takes all the blame for the CO2 emissions and the ethanol does not.

In sum, we believe the basis for this pathway is certainly not in line with the intent and fundamentals of the LCFS program and it should not be approved by CARB. This pathway approval would be giving the wrong message to the entire industry that would otherwise be investing in newer and better technologies to make this world cleaner and our environment safer. We salute CARB for being the steward of just a great program maintaining its core values and goals despite all the political pressures. We trust you'll be making the proper judgement on this case.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-08 07:34:42

No Duplicates.

## Comment 5 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Chris
Last Name: Malins
Email Address: chris@theicct.org
Affiliation: ICCT

Subject: Endicott/Sabine PFAD pathway
Comment:

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Please find attached comments from the ICCT on this Method 2B
pathway application, along with two supporting documents (a report
by Ecofys for the UK Government, and the UK Government's 2013 list
of biofuel feedstock designations as products, wastes and
residues).
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Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/19-lcfs2a2bcomments-ws-Wj9XP1M2WWMBZAVq.zip

Original File Name: Endicott.zip

Date and Time Comment Was Submitted: 2014-01-08 08:01:39

No Duplicates.

# Comment 6 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Monica
Last Name: Hirsch
Email Address: monicahma@ig.com.br
Affiliation:

Subject: Molasses and sugar cane juice
Comment:

We hereby respectfully disagree with CARBs recommendation for a new pathway for Molasses Ethanol (ETHM004) with a CI of 14.93 g CO2e/MJ and we kindly offer here our points of view and questions for your consideration.

The typical fermentation process to produce ethanol in a Brazilian mill in the state of São Paulo with over 35 years of operation (before Brazil's Pro Alcool Program), consists of a mixture of sugar molasses from the sugar factory and cane juice, coming directly from the milling. We estimated that 50.5% of all ethanol produced in Brazil Center South has the same origin (molasses) and follow the same pathway (in parallel with different amounts of cane juice, depending on the sugar mill) as the analyzed in the "Molasses to ethanol" pathway from CARB. The amount of molasses used, for any mill, is easily verified through the sugar production.

Note that molasses is essentially formed by fructose and glucose, which do not crystallize, unlike sucrose, abundant in cane juice and of simple crystallization. So the fermentation process to produce ethanol in several similar units in Brazil as the presented mill, actually happen from a mixture of the poor molasses from the sugar milling with sugarcane juice, never from molasses alone. The mixture of molasses and secondary sugarcane juice in the fermentation occurs mainly for three reasons:

1 - The yeast strains used typically "prefers" also sucrose to glucose and fructose and the fermentation process is inefficient without sucrose, demanding higher fermentation vessels (higher CAPEX), slower fermentation process (higher risk of infection and loss) converging to lower fermentation rates (lower return);

2 - Since molasses coming from the sugar factory is low in total sugars (the sucrose was crystallized), assuming maximum efficiency in the sugar production of which molasses is a by-product, it is necessary to add the cane juice directly from the milling so even before the start of fermentation (BRIX adjustment) at the risk of the ineffectiveness of the fermentation process;

3 - Unlike standard distilleries in Central America and the Caribbean that operate only from molasses and often are physically and geographically separated from the unit that processes and produces sugarcane, typical plants in the state of São Paulo, Brazil are pre-1980 and although they were born only to make sugar have expanded its crushing capacity and processing along the last decades. Thus there are no known cases of plants in the state of São Paulo that produce ethanol exclusively from molasses since, even ignoring items 1 and 2 above, its sugar factories are insufficient to process all the juice immediately. Such plants can surely produce ethanol from molasses, but only a tiny fraction of the total ethanol produced in that unit.

Accepting this pathway submitted, CARB is agreeing that the mill’s production mix (between sugar and ethanol) will be used to define the CI for the pathway for molasses only production but in practice it is not happened. Will you consider two pathways for the same ethanol product?

We would be glad to discuss this further with CARB and present additional evidence if necessary. We hope CARB will consider this comment and revert its position on this matter.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-08 10:55:15

No Duplicates.

## Comment 7 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Carla
Last Name: Pires
Email Address: carlamariap@terra.com.br
Affiliation: Council of Sustainability of FDC

Subject: Molasses Pathway - About the criteria and LUC
Comment:

Dear Sirs,

We think that to take the assumption of the GHG emissions for the ethanol productions, like demonstrated on the worksheet “EtOH Prod”, transportation, distribution and other phases is reasonable to take in consideration all the process related to the calculation of the emissions for the pathway.

The presented pathway that is been recommended by CARB, took into consideration information as determined in Detailed California-Modified GREET Pathways for Brazilian Sugarcane Ethanol: Average Brazilian Ethanol, version 2.3, September 23, 2009 and particular data from the mill, considering all the time the allocation factor of 0,34 (by TRS). But we have the follow questions:
- The “allocation” made for the considered LUC is not in the same way (and based on the same reasoning) of the other allocations in the pathway. The CARB 2009 value of 46 g CO2e / MJ ethanol was calculated dividing the (final total LUC emissions related to a cane area) by the (MJ in ethanol produced from all the cane juice in this area). So, if we produce only 34% of this ethanol, and assign to it a cane area also 34% of the total (by TRS allocation), we would have the same 46 g CO2e / MJ produced ethanol from molasses, other variables kept constant. So, we can´t use the factor of 34% in LUC calculation for molasses, when the result of 46 g CO2e / MJ ethanol is specifically calculated for the ethanol.

- It is not clear the calculation method for the electricity cogeneration and export credit. So, we would like to have more information.

In addition to that, we would like to EMPHASIZE that the emissions of LUC for ethanol from sugarcane juice must urgently be reviewed, otherwise will be created a difference of 30.21 g CO2e / MJ ethanol between the molasses based ethanol and the ethanol from sugarcane juice. The impact of this difference isn’t correct and consequently, also, isn’t fair.

We hope to have some answers before the approving of this pathway.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-08 11:43:50

No Duplicates.

## Comment 8 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Fabricio
Last Name: Pinto
Email Address: fabricio.guimaraes.pinto@gmail.com
Affiliation: FIA/USP

Subject: Molasses Pathway - About the fermentation efficiency
Comment:

About the fermentation efficiency.

Dear Sirs,

Analyzing the pathway that results in 14,67 g CO2e / MJ ethanol CI and comparing with the Brazilian Ethanol pathway of 73.40 g CO2e / MJ ethanol CI, we conclude that it’s better to produce ethanol with the reuse of the byproduct molasses instead of use the new technologies of greenfields using the state of the art to produce only ethanol, which is much more sustainable. We know that the new mills has lower GHG emissions (we can show it in details).

We would like to question if it was considered the technological advance of the fermentation process at molasses pathway. Information pointed by the Professor Dr. Silvio Andrietta of Biocontal (www.biocontal.com.br) indicates that the efficiency of sugarcane juice fermentation is much higher than the molasses fermentation.

So, this pathway recommendation seems like an inversion of criteria. Can you , please, answer this question?

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-08 12:37:08

No Duplicates.

**Comment 9 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.**

First Name: Simon
Last Name: Mui
Email Address: smui@nrdc.org
Affiliation: NRDC, Union of Concerned Scientists, NWF

Subject: Comments on the LCFS Application for Biofuels produced from Palm Oil Fatty Acid Distillate
Comment:

See Attachment

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/24-lcfs2a2bcomments-ws-UjxQMQBuBAgAalIx.pdf

Original File Name: NGO LCFS letter_Palm Oil Fatty Acid Distallates_Endicott Biofuels Application.pdf

Date and Time Comment Was Submitted: 2014-01-14 11:37:59

No Duplicates.

## Comment 10 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 2nd Workshop.

First Name: Clyde
Last Name: Hunter
Email Address: studiothreetwentyfive@gmail.com
Affiliation:

Subject: Comments on Raizen COPI
Comment:

See attachment

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/25-lcfs2a2bcomments-ws-UTJXPlA8WGZVNgRq.docx

Original File Name: Comment on Raizen COPI proposed fuel pathway for molasses ethanol 01 17 14.docx

Date and Time Comment Was Submitted: 2014-01-24 09:52:40

No Duplicates.

## Comment 11 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 3rd Workshop.

First Name: John
Last Name: Schreiber
Email Address: fll3262653@gmail.com
Affiliation:

Subject: No approval for NESTE Fish oil plan
Comment:

```
Using fish oil for biodiesel is a very very bad idea. Since the
ocean is an ecosystem, no animal species should be harvested for
fuel. This can't be sustainable.
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Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-30 03:14:52

No Duplicates.

## Comment 12 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 3rd Workshop.

First Name: Don
Last Name: Quixote
Email Address: nothanks@isp.net
Affiliation:

Subject: your insane idea
Comment:

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horrendous
your shortsighted corporated backed thinking is going to ruin one
ecosystem to 'attempt' to mitigate a perceived problem, in
another.
Please fire yourselves immediately and get real jobs
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Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-30 03:41:12

No Duplicates.

## Comment 13 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 3rd Workshop.

First Name: John
Last Name: Sweeney
Email Address: johnebigrig@outlook.com
Affiliation:

Subject: Neste Oil renewable diesel applications
Comment:

```
Please reconsider this proposal. Someone appears to have overlooked
the fact that fish oil is an unsustainable commodity. The oceans
have suffered enough damage without us adding more "fuel" to the
fire. While I appreciate the air quality concerns, I firmly believe
the potential for irreversible harm to the already fragile global
ocean life and ecosystems trumps all other concerns.
Thank you.
John Sweeney
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Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-30 06:11:50

No Duplicates.

## Comment 14 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 3rd Workshop.

First Name: Daniel
Last Name: Schultz
Email Address: dschul9641@cox.net
Affiliation:

Subject: LCFS Fuel Pathway Application
Comment:

I am totally against the continued efforts to use the world's FOOD RESOURCES to
attempt to solve problems which seem to deliberately be ignored such as the addition of transportation pipelines for fuels from Canada to the US.
The damage done to both our food source production and that being done to our car's engines by alcohol addition is inexcusable and I as a retired engineer am astounded.
What will our Grandchildren think when we have destroyed our food sources INSTEAD of utilizing the underground fuel sources which certainly in the next decade or so be replaced by other fuel sources and if not, carbon fuels will still be plentiful on our continent without disrupting our food sources both on the land and the seas.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-30 15:12:17

No Duplicates.

## Comment 15 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 3rd Workshop.

First Name: sydney
Last Name: bacchus
Email Address: appliedenvirserve@gmail.com
Affiliation:

Subject: Public Comments for Application 69 for pathways for the Low Carbon Fuel Standard (LCFS)
Comment:

My comments are provided as "Public Comments" for application 69 for pathways for the Low Carbon Fuel Standard (LCFS), from the following link:
http://www.arb.ca.gov/fuels/lcfs/2a2b/2a-2b-com.htm

My comments identify actual or methodological errors in Neste Oil for renewable diesel (RD) produced at its plant in Singapore from (a) North American tallow and (b) Southeast Asian fish oil.

Application 69 proposes to use "Southeast Asian Fish Oil" as "renewable diesel" (RD).
Fish oil is the most valuable source of Omega 3 fatty acids, which are essential for human health. Fish not only provide essential food for humans, but also for countless other animals in the food chain.

This application ignores the well-established scientific fact that natural fisheries are collapsing worldwide and industrial fish farming is contributing to this global collapse.
Therefore, "fish oil" from ANY source cannot be considered anymore "renewable" than whale oil for lamps in colonial days.

This application also fails to consider the fact that this NON-renewable fish oil and oil from American tallow would be manufactured thousands of miles away in Singapore and would NOT be transported telepathically to California.
Neither the air quality contamination from the manufacturing of those oils in Singapore or the transportation of those oils, shipped by ocean tanker an estimated 7,741 nautical miles, was considered in the application.

Please see the recent report below regarding the air pollution in China from this type of "out-sourced" industry, particularly the section on "Outsourcing blowback: Chinese air pollution drifts to the U.S." which states:
'The levels of pollution from China are so high that the air pollution reaches the United States within six days, adding significant pollution to the West Coast, which has been registered by the EPA."

Therefore, this application fails to meet the definition of "renewable" and fails to reduce air quality pollution in California and should be denied.

Sydney Bacchus, Ph.D.

_____
http://www.naturalnews.com/043682_air_pollution_China_toxic_environment.html

Beijing air pollution reaches crisis levels; can China survive its toxic environment?
Tuesday, January 28, 2014 by: Thomas Henry

Learn more:
http://www.naturalnews.com/043682_air_pollution_China_toxic_environment.html#ixzz2rvUaQg7r

(NaturalNews) China is the world's worst industrial polluter, spewing tons of toxins derived from man-made production into the air, soil and water at a steady rate. It has refused to comply with the same standards adopted by other leading nations of the world.

And the level of pollutants is starting to catch up with China's residents, who have to breath it. Recent weeks have seen declarations of "extremely dangerous pollution" in Beijing, with particulate matter reaching more than two dozen times the level considered safe for airborne toxins.

Workers and commuters commonly wear face masks to combat the often pungent odors and dust, while many suffer from chronic coughs and irritation in their airways and nasal passages.

The smog has reportedly worsened in the last couple of years, obscuring the skyline in major cities and severely limiting visibility. This toxins further compound in the winter with the heavy use of coal for heating and the often stale air.

While the World Health Organization (WHO) considers fine particles (PM2.5) safe below 25 micrograms, Beijing monitoring stations have recently recorded levels between 350-500 micrograms and as high as 671 micrograms. In Harbin, the tenth most populous city in China, which is located in the far northeast of the country, PM2.5 levels soared as high as 1,000 micrograms.

A Harvard study published in 2013 found that China's refusal to curb air pollution was contributing to shorter lifespans among its population, particularly in the north, including Beijing. The almost absurd levels of total suspended particulates just from using coal to heat homes has shaved off a calculated 2.5 billion years of life expectancy for the 500 million residents of northern China, depriving individuals of an estimated 5.5 years of life.

Outsourcing blowback: Chinese air pollution drifts to the U.S.
Conventional wisdom has touted that outsourcing the manufacture of cheap goods to China and other sources of cheap labor would hold the added benefit of cutting down on pollution in the United States (with fewer at work in American factories). But that, too, has bitten back.

A fresh study conducted by the University of Washington found that smog and other airborne pollution from Chinese factories was creeping back to the U.S., along with infinite tons of imported goods. A full 21% of China's industrial pollution comes from manufacturing exports for the United States, bringing to full circle a new form of literal blowback.

The study's authors wrote, "Outsourcing production to China does not always relieve consumers in the United States - or, for that matter, many countries in the Northern Hemisphere - from the environmental impacts of air pollution ."

The levels of pollution from China are so high that the air pollution reaches the United States within six days, adding significant pollution to the West Coast, which has been registered by the EPA.

The study found, "On a daily basis, the export-related Chinese pollution contributed, at a maximum, 12-24% of sulfate concentrations over the western United States."

Heavy metal contamination in foods from China
Outsourcing also means that a great deal of the food consumed in America is produced in China - where the pollution also includes high levels of heavy metals. Currently, China ranks as the third largest source of imported food in the United States, though even the FDA is unsettled enough to turn away hundreds of batches of contaminated food each year.

Everything from packaged meals and canned food to USDA-certified Organic produce ships to the U.S. in massive quantities on a regular basis. Previous exposes by Natural News and throughout the media have shown how much of this food is produced with standards considered unacceptable here in the States, and that the most populous country is also turning out some of the most contaminated foods in the world, frequently tainted with toxins including lead, cadmium, mercury, arsenic and even uranium.

In December 2013 - after a 2006-2009 soil survey was finally made public - the deputy minister of China's Ministry of Land and Resources declared that some 3.3 million hectares of farmland in central China was so polluted with heavy metals and industrial contamination that it could not be used to grow crops anymore. Cadmium was the chief concern for soil pollution. Additionally, some 60% of the groundwater used for drinking in Chinese cities is considered "dangerously polluted" with heavy metals, while the Asian country is notorious for its severely polluted rivers filled with industrial waste.

And again, all of this trickles back to the United States on a continuous basis.

Natural News and the Consumer Wellness Center have been running tests for heavy metal content in many popular food sources (particular to lot numbers). Check out some of the results (visit site here: http://labs.naturalnews.com ) for a better understanding of what's really in your food and what kind of heavy metal burden your diet could be placing on your body.

The scientific literature already raises alarm over Chinese-produced foods. Just one study from 2011 published in the Journal of the Science of Food and Agriculture on wheat grown in northwest China found very high levels of cadmium and lead, demonstrating, according to the authors, that food remains "an important avenue for toxic metals entering the human food chain."

Beyond just China's melamine infant formula scandal, an electrothermal atomic absorption analysis conducted by the University of Valencia found that all 29 commercially available infant cereals it tested were contaminated with both cadmium and lead, creating a chronic toxicity issue from foreign-produced foods.

Sources for this article include:

http://hosted.ap.org

http://www.pnas.org

http://rt.com

http://www.pnas.org

http://labs.naturalnews.com

http://www.naturalnews.com

http://www.ncbi.nlm.nih.gov

http://www.ncbi.nlm.nih.gov

http://www.danwei.com

http://science.naturalnews.com

Learn more:
http://www.naturalnews.com/043682_air_pollution_China_toxic_environment.html#ixzz2rvUxSlbH

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-31 18:01:54

No Duplicates.

## Comment 16 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 3rd Workshop.

First Name: Sydney
Last Name: Bacchus
Email Address: appliedenvirserve@gmail.com
Affiliation:

Subject: Public Comments for Application 71 for pathways for the Low Carbon Fuel Standard (LCFS)
Comment:

My comments are provided as "Public Comments" for application 71 for pathways for the Low Carbon Fuel Standard (LCFS), from the following link:
http://www.arb.ca.gov/fuels/lcfs/2a2b/2a-2b-com.htm

My comments identify actual or methodological errors in Western Plains Energy's renewable diesel (RD) produced by growing corn and sorghum in Kansas to convert to ethanol.

Application 71:
Application 71 is by Western Plains Energy to grow corn and sorghum in Kansas to convert to ethanol.

Both are agricultural crops that divert farmland critical from growing food for Americans at a time when the US position is that current food production is inadequate to meet future needs.

Corn is one of the most irrigated crops grown in the US.
It is common knowledge that US aquifers and surface waters, particularly those used for industrial agriculture, have been depleted to the point where future agricultural production for food is in jeopardy.

Corn also is one of the most heavily fertilized crops grown in the US.
A prime ingredient of the fertilizer used for most of the agricultural crops in the US is phosphate rock that is mined in Florida.
This mining process is highly energy intensive, consuming massive quantities of petroleum-based diesel fuel and producing deadly concentrations of particulates from a combination of the diesel fuel and mining dust that leaves surrounding rural areas resembling the dust-bowl era of decades past.

Phosphate mining also requires hundreds of millions of gallons of water per day for the processing of the mined rock.
Additional the mining process leaves huge gaping mine pits, hundreds of acres in size, in the surficial aquifer that results in continual dewatering of the regional aquifer system via evaporation from the mine pits.

Please refer to the comments of rural residents subjected to the clouds of particulate air pollution and dewatering of their property from this mining (e.g., Norma Killebrew) and my comments in the US Army Corps of Engineers' Areawide Environmental Impact Statement (EIS) for continued phosphate mining in central Florida for more details on the air quality contamination and irreversible dewatering of the aquifer system that results from the mining to produce fertilizer for crops such as the corn and sorghum proposed for ethanol in this application.

This application did NOT include or address these air quality or

irreversible water resource depletions for fertilizing, irrigating or fueling farm equipment to produce the corn or sorghum. Therefore, this source of fuel canNOT be considered renewable or a source that would reduce air quality contaminants.

Application 71 should be denied.
Sydney Bacchus, Ph.D.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-01-31 19:47:35

No Duplicates.

## Comment 17 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 6th Workshop.

First Name: Rob
Last Name: Williams
Email Address: rbwilliams@ucdavis.edu
Affiliation: University of California

Subject: CNG020 & CNG021
Comment:

(1)It appears that "bypass CO2" sent to flare in reference case is treated as avoided emissions but I do not see where "bypass CO2" in the application is accounted for (i.e., CO2 vented in the tailgas and bypass CO2 in onsite energy should be emissions debt if treated as avoided in the reference flare case.
Are the "bypass CO2" emissions accounted for in the pathway cases?

(2) Methane slip/ methane in tail gas: Report footnote says the tail gas can be flared or used for heat recovery or recycled into biogas.

The methane slip/ CO2 mixture is generally too lean to combust alone and often must be mixed with natural gas or digester gas for flare or engine or oxidized in a thermal or catalytic oxidizer. [Tail gas is (12% CH4 + 88% CO2) if assume digester gas is 60% CH4, 40% CO2 and there is 10% CH4 slip from a PSA].

Pathway needs to account for methane slip from upgrading process (PSA is used in pathway document) as fugitive emission or as oxidized CO2 (if tailgas is treated). Recommend pathway report discuss methane slip disposition and require appropriate treatment or oxidation be part of pathway.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-05-30 12:24:22

No Duplicates.

## Comment 18 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 6th Workshop.

First Name: Greg
Last Name: Kester
Email Address: gkester@casaweb.org
Affiliation: California Assoc of Sanitation Agencies

Subject: LCFS Pathways for Wastewater derived biomethane
Comment:

```
Please find attached comments from the California Association of
Sanitation Agencies on the proposed pathways for converting
biomethane from anaerobic digestion at public wastewater treatment
plants into low carbon transportation fuel.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/35-lcfs2a2bcomments-ws-VGRdbl1yAmJVY1J8.pdf

Original File Name: 05.30.14 CASA Comments Prop Pathways.pdf

Date and Time Comment Was Submitted: 2014-05-30 18:23:26

No Duplicates.

# Comment 19 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 7th Workshop.

First Name: Don
Last Name: Scott
Email Address: dscott@biodiesel.org
Affiliation: National Biodiesel Board

Subject: Official written comments from the National Biodiesel Board on Low Carbon Fuel Standard Fu
Comment:

We commend the California Air Resources Board (ARB) for establishing this additional pathway for biodiesel made from existing renewable feedstocks. This pathway will increase the availability of low-carbon biodiesel available to meet greenhouse gas (GHG) reduction goals under the Low Carbon Fuel Standard (LCFS).

As the biodiesel industry grows in volume production, our member producers make more efficient utilization of installed production capacity. Growth in the biodiesel industry also results in innovation and more optimal utilization of existing feedstocks. Corn oil from ethanol plants, also known as distillers' corn oil, is a shining example of successful growth of the biodiesel industry leading to innovation and development of new feedstocks. 2013 was a tremendous year for biodiesel. The enthusiastic growth of biomass-based diesel was matched by record increases in feedstock diversity and GHG reduction. While the national industry grew by 55 percent as a result of the federal Renewable Fuel Standard, the most significant volumes of new feedstocks came into use from distillers corn oil, used cooking oil, animal fats, and various other sources. Together, these wastes and new feedstocks grew by 88 percent in 2013 . Among these, distillers' corn oil has been growing most dramatically.
The US biodiesel industry came into being to solve economic problems related to a glut of soybean oil stranded on the domestic market. Domestic production and crush of soybeans to produce livestock feed created a surplus of soybean oil in excess of that used for food products. While export markets for whole soybeans thrive, importers find greater profit margin in transporting whole beans to produce protein meal and vegetable oil in foreign markets. Potential importers of US-produced soybean oil face a lower (and therefore infeasible) rate of return compared to importing whole beans. Therefore, a domestic use of this surplus soybean oil was needed. As the biodiesel industry works collectively to establish policy, infrastructure, and OEM (Original Equipment Manufacturer) support for biodiesel as a fungible compliment to diesel fuel; we have realized that growing a diverse biodiesel industry can solve additional problems related to energy security and GHG emissions. The momentum derived from finding a use for surplus soybean oil has morphed into finding other feedstocks that can add to biodiesel's ability to reduce GHGs, displace imported oil, and support domestic jobs. Distillers' corn oil is an example of industry innovators responding to that call. Before 2010 there was relatively little corn oil being extracted from distillers' grains. In 2013, over 1 billion pounds of distiller's corn oil were used to produce biodiesel and 2014 is on track to surpass 2013. The policy signals to increase biodiesel production resulted in rapid growth of corn oil extraction. No new crops need to be produced in order to acquire this corn oil. No change in ethanol output is required. Distillers' corn oil is pulled out of the byproduct stream of ethanol production with no negative impact on the economic value of that byproduct. While the nutritional value of distillers grains

with solubles (DGS) is slightly changed, with offsetting impacts on feed quality depending on the species; considerable research indicates that the new lower fat DGS have approximately the same value in the feed market as conventional DGS. , ,  Ethanol producers realize higher economic return from their process, because federal and LCFS policy create incentive to create biodiesel from their byproduct stream.  The incentive to increase biodiesel production is the essential factor in making this utilization of byproduct a reality. Other uses for distillers corn oil, such as livestock feed would not provide the incentive to extract this oil without policy driving biodiesel.

For the reasons stated above, ARB's decisions regarding allocation of emissions for producing distillers' corn oil are correct.  Also correct is ARB's determination that distiller's corn oil is available for biodiesel with no indirect land use change. Distillers' corn oil did not exist as an economic commodity before the draw to use it for biodiesel production.  Therefore, it is not being taken away from another market. The relative identical price of DGS with or without oil extraction proves oil extraction has no economic impact on DGS users.  Furthermore, ARB should consider factoring in the existence of distillers' corn oil in reducing the indirect impact of other biodiesel feedstocks. The evolution of the biodiesel industry and its origins based on soybean oil utilization spurred these developments in corn oil extraction.  While the National Biodiesel Board disagrees that the response to domestic biodiesel production from vegetable oil is the expansion of oilseed production internationally; we assert that corn oil extraction is a market response to successful growth of the biodiesel industry. The growth of corn oil extraction is proof that the biodiesel industry can innovate to find new feedstocks without disrupting other markets. The discovery of distillers' corn oil going into biodiesel as well as that going into animal feed markets should be counted as additional to the global fats and oil markets as a credit to the biodiesel industry.  This ultimately reduces the indirect impact of biodiesel from various feedstocks.

Specific to the documents posted on the ARB website regarding this new pathway, we note that the pathway addresses corn oil extraction in nine specific states. We would suggest inclusion of corn oil produced in all of North America.  Emissions from transportation are relatively small differences in the lifecycle.  Inclusion of more states and Canada would further incentivize production of low-carbon fuel.  Similarly, biodiesel produced in all of North America should be included for maximum inclusivity of the broadest possible pathway.  Additional pathways for specific regions with lower emissions could be added later.

The addition of this new pathway is beneficial, because it will allow the use of corn oil from ethanol plants that sell wet DGS. It is also beneficial to allow flexibility in using this new pathway for plants that may sell some of their DGS as wet or dry. We stress the importance of maintaining the previous pathway for plants that dry their DGS.  Businesses have made strategic investments based on existing pathways.  It is important to preserve consistency in the treatment of corn oil from dry DGS for the sake of building a sustainable biodiesel industry as well as implementing a successful LCFS.

We look forward to improving the accuracy of all biodiesel pathway assessments and the recognition of new and beneficial biodiesel feedstocks.  We welcome any question you have about these comments or requests for further clarifying data.

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/36-lcfs2a2bcomments-ws-AmFVMlMgV2YEXQBj.docx

Original File Name: CARB Corn Oil Wet DGS Comments 9-18-14.docx

Date and Time Comment Was Submitted: 2014-09-18 16:15:57

No Duplicates.

## Comment 20 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 7th Workshop.

First Name: Stefan
Last Name: Unnasch
Email Address: unnasch@lifecycleassociates.com
Affiliation: Life Cycle Associates

Subject: Corn Oil Biodiesel
Comment:

```
Please consider my comments and those from 2011.  Thank you.
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2014-09-18 16:09:48

No Duplicates.

## Comment 21 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.

First Name: Rolf
Last Name: Hogan
Email Address: rolf.hogan@rsb.org
Affiliation: Roundtable on Sustainable Biomaterials

Subject: Sustainable Oils Method 2b Submission
Comment:

RSB submits the included letter in support of Sustainable Oils' Method 2b Feedstock Only camelina pathway.

As noted in our letter of support, RSB promotes sustainability practices through its standard which include low-input crops that can be produced with minimal impact on existing food, forage and fiber crop production systems, and which drive innovation and efficiency in the agricultural sector.

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/38-lcfs2a2bcomments-ws-BnRSJwdkV1sKf1Al.pdf

Original File Name: RSB Support Letter_Sus Oils.pdf

Date and Time Comment Was Submitted: 2014-11-12 17:56:29

No Duplicates.

**Comment 22 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.**

First Name: Debbie
Last Name: Hammel
Email Address: DHammel@nrdc.org
Affiliation: NGO

Subject: Camelina Pathway
Comment:

```
Comments from NGO about the Camelina pathway
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/39-lcfs2a2bcomments-ws-VjhUNVY4VVlSOARh.pdf

Original File Name: NGO Letter Camelina Pathway 11 13 14.pdf

Date and Time Comment Was Submitted: 2014-11-13 15:36:08

No Duplicates.

**Comment 23 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.**

First Name: Eric
Last Name: McCarthy
Email Address: EMcCarthy@proterra.com
Affiliation:

Subject: LCFS Energy Economy Ratio Update for Electric Buses
Comment:

```
We appreciate the opportunity to provide comments on the Low Carbon
Fuel Standard. Please see Proterra's letter attached.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/41-lcfs2a2bcomments-ws-BmpcNVYgVVlQNVMy.pdf

Original File Name: Low Carbon Fuel Standard Comments_Proterra_Nov2014.pdf

Date and Time Comment Was Submitted: 2014-11-20 10:03:08

No Duplicates.

# Comment 24 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.

First Name: Elias
Last Name: Marvinney
Email Address: emarvinney@ucdavis.edu
Affiliation: UC Davis

Subject: prevention of perverse incentives with forest residue use
Comment:

```
To whom it may concern:

While the general goal of this application seems reasonable and
even supportive of statewide sustainability goals, I believe that
there is an unacceptable risk of creating perverse incentives that
may promote deforestation when incentives to utilize forest residue
are given. I strongly urge ARB to reconsider certification of fuels
from forest residues until the agency has the appropriate capacity
and authority to monitor and verify that it is not causing
deforestation or loss of forest carbon stock.

Best regards,
Elias Marvinney
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-12-17 18:21:40

No Duplicates.

**Comment 25 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 4th Workshop.**

First Name: Shelby
Last Name: Neal
Email Address: sneal@biodiesel.org
Affiliation: National Biodiesel Board

Subject: Comments on Universal Biofuels & Eco Solutions applications
Comment:

```
Thank you for your consideration of our comments.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/47-lcfs2a2bcomments-ws-VzJVMFwyWVVVIAhn.pdf

Original File Name: Eco Solutions and Universal Pathway Comments 12-22-15.pdf

Date and Time Comment Was Submitted: 2015-12-22 10:56:22

No Duplicates.

## Comment 26 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.

First Name: Shelby
Last Name: Neal
Email Address: sneal@biodiesel.org
Affiliation: National Biodiesel Board

Subject: Comments on Universal and Eco Solutions applications
Comment:

```
Thank you for your consideration.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/49-lcfs2a2bcomments-ws-AmcAZVM9WXkHbgZq.pdf

Original File Name: EcoSolutionsUniversalComments22dec15.pdf

Date and Time Comment Was Submitted: 2015-12-23 09:25:27

No Duplicates.

## Comment 27 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.

First Name: Celia
Last Name: DuBose
Email Address: celia.dubose@cabiodieselalliance.org
Affiliation: California Biodiesel Alliance

Subject: CBA Comments on Recent LCFS Pathway Applications
Comment:

```
Anil,
Attached are comments from the California Biodiesel Alliance (CBA)
on several recently released LCFS pathway applications.

Thank you very much for your close consideration of these concerns
from the biodiesel industry. This letter supports and refer to the
technical details presented in comments submitted by the National
Biodiesel Board.

Best,
Celia DuBose
Executive Director
California Biodiesel Alliance (CBA)
www.californiabiodieselalliance.org
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/50-lcfs2a2bcomments-ws-AGNWMlQ0WFRRNAlm.pdf

Original File Name: CBA Comments_LCFS Pathway Applications_12.23.15.pdf

Date and Time Comment Was Submitted: 2015-12-24 08:40:35

No Duplicates.

**Comment 28 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.**

First Name: Celia
Last Name: DuBose
Email Address: celia.dubose@cabiodieselalliance.org
Affiliation: California Biodiesel Alliance

Subject: CBA Comments on LCFS Pathway Applications
Comment:

Please see attached.

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/51-lcfs2a2bcomments-ws-VDcFYVc3UV1VMFU6.pdf

Original File Name: CBA Comments_LCFS Pathway Applications_12.23.15.pdf

Date and Time Comment Was Submitted: 2015-12-24 09:06:28

No Duplicates.

**Comment 29 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.**

First Name: Cara
Last Name: Allan
Email Address: callan@ucdavis.edu
Affiliation:

Subject: Concern over sourcing of fuel
Comment:

```
I urge ARB to reconsider certification of fuels from forest
residues until the agency has the appropriate capacity and
authority to monitor and verify that it is not causing
deforestation or loss of forest carbon stock.
```

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2015-12-24 20:40:12

No Duplicates.

## Comment 30 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 4th Workshop.

First Name: John
Last Name: Duff
Email Address: john@sorghumgrowers.com
Affiliation: National Sorghum Producers

Subject: White Energy Hereford
Comment:

```
See attached for National Sorghum Producers comments.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/53-lcfs2a2bcomments-ws-UDRTMFEzUmRWPQFj.docx

Original File Name: december_2015_pathway_comments_white_energy_hereford.docx

Date and Time Comment Was Submitted: 2015-12-26 12:51:30

No Duplicates.

## Comment 31 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.

First Name: John
Last Name: Duff
Email Address: john@sorghumgrowers.com
Affiliation: National Sorghum Producers

Subject: Aemetis Keyes
Comment:

```
See attached for National Sorghum Producers comments.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/55-lcfs2a2bcomments-ws-UzddPgFjAzVQO1Iw.docx

Original File Name: december_2015_pathway_comments_aemetis_keyes.docx

Date and Time Comment Was Submitted: 2015-12-26 13:00:18

No Duplicates.

## Comment 32 for Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) - 8th Workshop.

First Name: Ron
Last Name: Alverson
Email Address: rsalv@itctel.com
Affiliation:

Subject: Poet corn stover ethanol pathway
Comment:

```
Please see attached comments.
```

Attachment: https://ww2.arb.ca.gov/sites/default/files/BARCU/barcu-attach/57-lcfs2a2bcomments-ws-ViYGb1w4UnUEXQJh.docx

Original File Name: Poet Corn Stover Ethanol pathway comments..docx

Date and Time Comment Was Submitted: 2015-12-27 12:25:55

No Duplicates.

**There are no comments posted to Comments for the LCFS Method 2A2B applications (lcfs2a2bcomments-ws) that were presented during the Workshop at this time.**