

**DOCKETED**

<b>Docket Number:</b>	22-IEPR-05
<b>Project Title:</b>	Emerging Topics
<b>TN #:</b>	243990
<b>Document Title:</b>	Union of Concerned Scientists Comments - policy implications of supporting dairy biomethane use for hydrogen
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Union of Concerned Scientists
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	7/11/2022 1:25:34 PM
<b>Docketed Date:</b>	7/11/2022

*Comment Received From: Union of Concerned Scientists*  
*Submitted On: 7/11/2022*  
*Docket Number: 22-IEPR-05*

**policy implications of supporting dairy biomethane use for hydrogen**

*Additional submitted attachment is included below.*

Date: July 12, 2022

RE: Docket number 22-IEPR-05 and Hydrogen Workshop

From Jeremy Martin, Director of Fuels Policy, Senior Scientist

I understand that in the June 21, 2022, IEPR Workshop there was some discussion about risks posed by policy support for manure methane used to produce low carbon intensity (CI) hydrogen. UCS has done some related work on problems posed by support for manure biomethane, especially when it is awarded a large negative CI score under the Low Carbon Fuel Standard (LCFS). This work may be relevant to your consideration of treatment of biomethane-based hydrogen, so I wanted to include it in the record.

Critically, biomethane is first and foremost a powerful heat trapping pollutant that should be kept out of the atmosphere. In some cases, the capture and beneficial use of biomethane may provide additional climate mitigation, by displacing fossil natural gas use with a biogenic alternative. However, because the 100-year Global Warming Potential of methane is 27-30 times higher than carbon dioxide, and the 20-year Global Warming Potential is approximately 86 times higher, keeping the methane out of the atmosphere is vastly more important for the climate than displacing fossil methane in combustion applications. Given the significant fugitive emissions associated with all methane production and distribution, if incentives for the use of biomethane subsidize its production, they can easily become counterproductive even if the biomethane is mostly used to displace fossil gas.

In response to a December 2021 LCFS workshop, UCS submitted a comment on dairy biomethane including some preliminary analysis we commissioned by Professor Kevin Fingerman and Amin Younes of Humboldt State University and the Schatz Energy Research Center. Their findings confirmed that the value of LCFS credits for a large, confined animal feeding operation (CAFO) dairy vastly exceed the cost of recovering the biomethane. We believe the analysis suggests a high risk of adverse outcomes that could undermine the goals of the LCFS and broader California policy and warrant further scrutiny at the soonest possible opportunity. In particular, the current LCFS structure is subsidizing the largest CAFO dairies, contributing to industry consolidation and putting dairies that use other manure methane strategies at a competitive disadvantage. Our comment and the analysis are available at <https://www.arb.ca.gov/lists/com-attach/24-lcfs-wkshp-dec21-ws-AHVSN1MhVlpXNQRI.pdf>.

Later, in response to a March 2022 workshop on Methane, Dairies and Livestock, and Renewable Natural Gas in California, UCS submitted an additional comment suggesting one possible mechanism to address the concern raised in the earlier comment, arguing that CARB should appoint a credit aggregator for avoided methane emissions using a “pay it forward” approach to address problems associated with LCFS dairy methane pathway implementation. This comment is available at <https://www.arb.ca.gov/lists/com-attach/19-dairywkshp220329-ws-VCFXMIQmWVVWNFQ1.pdf>