



To Mr. Richard Corey
Executive Officer
California Air Resources Board
1001 I ST Sacramento, CA 95814:

RE: LCFS Rulemaking Input- Renewable Biomass Issues

(Comment submitted electronically via Comment Submittal Form at
[https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=lcfs-wkshp-dec21-
ws&comm_period=1](https://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=lcfs-wkshp-dec21-
ws&comm_period=1))

Dear Mr. Corey:

FS Agrisolutions Industria de Biocombustíveis Ltda (FS, Fueling Sustainability) appreciates the opportunity to provide these comments in response to the Public Workshop to Discuss Potential Future Changes to the LCFS Program.

FS is the first Brazilian company to produce ethanol, animal nutrition products, corn oil and bioenergy exclusively from second crop corn. FS utilizes energy cogeneration from biomass to meet its own energy needs and to generate surplus electricity that is sold to the Brazilian electrical grid. We integrate a new low carbon value chain that encompasses low carbon intensity (Low-CI) second crop corn, incentives to sustainable forest cultivation, the sale of high-quality animal nutrition and ethanol products, and the generation of bioenergy and steam.

Aligned with the CARB objectives highlighted in the LCFS Workshop held on December 7th 2021, FS produces an extremely Low-CI ethanol and is focused on demonstrating how our technical innovations can contribute to the LCFS. **As an important component of this LCFS rulemaking, FS would like to advocate for the consideration of using renewable biomass as process fuel.**

One key issue is the use of renewable biomass for thermal and electric energy. Renewable biomass provides thermal and electrical energy for the industry, without any fossil fuel usage in the production process. This is highly beneficial for the production of low carbon fuel as the approach reduces processing emissions due to the biogenic nature of the carbon burned in the energy generating boilers.

While other corn ethanol producers utilize fossil natural gas or even coal, FS is showing the potential of using renewable biomass (such as planted eucalyptus and other energy crops) or wood residues for process energy. CARB's recognition of the benefits of utilizing renewable biomass to generate process energy as part of a Low-CI ethanol production process is extremely important and will motivate other market participants to move away from fossil sources.

Agricultural residues are treated as carbon neutral so wood residues should be treated similarly. The woody biomass that is cultivated for energy purpose is recognized by IPCC¹ as neutral because the carbon that is released during combustion has previously been sequestered from the atmosphere in the growing process. We must emphasize that the biomass sources used by FS are fast growing species. The global decarbonization plan recently published by IEA emphasizes that biomass necessarily plays an important role in the energy transition.² This IEA finding highlights the importance of CARB analyzing the various types of biomass as process energy for LCFS pathways and determining the parameters of Low-CI renewable biomass.

Due to importance of this issue, we take this opportunity to request CARB's attention to the study and recognition of the role of renewable biomass as a source of Low-CI process energy.

Please count on FS for providing data and evidence, or any other support that CARB may need to pursue the listed topics.

Respectfully,

DocuSigned by:
Daniel Lopes
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Daniel Costa Lopes

Executive VP Sustainability & Businesses Development

¹ 2006, IPCC Guidelines for National Greenhouse Gas Inventories (Section 1.2 of Volume 1).

² IEA Net Zero by 2050, A Roadmap for the Global Energy Sector