



Natalie Mindrum

Director, Environmental Strategy and Sustainability
natalie.mindrum@united.com
872-825-5942

February 24, 2017

Mary Nichols, Chair
CA Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Chair Nichols:

The California Air Resources Board (CARB) will hold a public working meeting on the Low Carbon Fuel Standard on March 17th. United Airlines appreciates the opportunity to participate in this meeting, and to provide the following information for your consideration.

As you know, United Airlines along with our partners in the aviation industry have requested the inclusion of sustainable alternative jet fuel (SAJF) as an eligible credit-generating fuel under the Low Carbon Fuel Standard (LCFS). United greatly appreciates the ongoing dialogue we have shared with CARB over the last year regarding the inclusion of SAJF. Moreover, we value the work and efforts of staff in establishing and participating in a working group with staff and the industry to advance this discussion. A formal literature review study has been completed and shared with staff, and we look forward continuing our work together to ensure the Board and staff's technical questions and concerns are addressed.

Allowing SAJF to generate LCFS credits would support further development of the California alternative fuels industry, bring clean energy jobs to California, and create opportunities for airlines to support California's greenhouse gas emissions (GHG) reduction objectives. Further, such an approach would be consistent with CARB's stated support for deployment of SAJF in CARB's own Sustainable Freight Strategy.

United has a strong record of fuel efficiency improvements and GHG reductions, and seeks to build further on that record through the development and deployment of SAJF. However, SAJF needs to be available in significant quantities in order to help meet the aviation industry's climate change commitments. These commitments include a 1.5 percent annual average fuel efficiency improvement through 2020, carbon-neutral growth beginning in 2020, and halving net CO₂ emissions from aviation by 2050 as compared to 2005 levels.

Allowing SAJF producers to generate LCFS credits would significantly improve the economics of SAJF production by allowing producers to generate credits from all transportation fuels produced, while also creating LCFS compliance flexibility for regulated parties. In California, United Airlines has executed an agreement with AltAir Fuels for the purchase of up to 15 million gallons of SAJF over a three-year period. We are currently commencing our second year of this

three-year agreement. This first-of-its-kind facility delivers commercial scale quantities of SAJF to Los Angeles International Airport and has added more than 65 new clean energy jobs to the Paramount, CA community. Depending on favorable policy conditions in California, United would evaluate expanding this commitment to bring SAJF to other locations in California.

Unfortunately, the production of SAJF is currently disincentivized in California because it is not eligible for LCFS credits. The LCFS unnecessarily distorts the alternative fuels market by favoring the production of renewable diesel over SAJF, even though both fuels can be produced from the same facility and deliver comparable lifecycle GHG reductions. As a result, AltAir has reduced the total available production of SAJF for United and others to purchase. Creating such disincentives for producers like AltAir (and thereby suppressing demand from airlines like United) is contrary to the GHG reduction goals of the LCFS.

Allowing all low-carbon transportation fuels to generate credits under the LCFS would support the developing California alternative fuels industry, provide an additional pool of available credits to contain the costs of the LCFS, and create opportunities for airlines to support California's GHG objectives.

United strongly urges CARB to credit SAJF production in order to expand opportunities for new alternative fuel production facilities. We look forward to our continued work with CARB to achieve this goal.

Sincerely,



Natalie Mindrum
Director, Environmental Strategy and Sustainability
United Airlines