From: Breen, David
To: WIND Cory Ann
Subject: RE: 2018 Aviation Fuel Overview for DEQ
Date: Monday, February 26, 2018 12:01:16

I did, however, note a LAX truck to wing fueling operation in a AltAir presentation. I will also reach out to my contact at LAX to find out more. -David

LAX – Los Angeles World Airports
March 11, 2016

From: Breen, David
Sent: Monday, February 26, 2018 11:57 AM
To: 'WIND Cory Ann' <Cory.Ann.WIND@state.or.us>
Subject: RE: 2018 Aviation Fuel Overview for DEQ

Hi Cory….I spoke with Stephanie Meyn with SeaTac this morning;

- At SeaTac, the biojet fuel was blended offsite with conventional jet fuel and delivered to the wing of the aircraft by truck by the airline (Alaska)
- At LAX the fuel produced at the AltAir refinery is transported by truck to LAX where it is mixed into the jet fuel hydrant system. Consequently, the Biojet goes to all aircraft fueled on the hydrant system, but United retains the entire environmental benefit.

-David

From: WIND Cory Ann [mailto:Cory.Ann.WIND@state.or.us]
Sent: Thursday, February 22, 2018 2:53 PM
To: Breen, David <David.Breen@portofportland.com>
Cc: OregonCleanFuels <OregonCleanFuels@deq.state.or.us>
Subject: RE: 2018 Aviation Fuel Overview for DEQ

EXTERNAL EMAIL:

Thanks for the meeting this morning…I think we all learned a lot.

Here are the items that I jotted down that we owed you:

- Here is the registration form to be a credit generator. In Section 2, check the boxes for fossil CNG and electricity. If you have an estimate for CNG, put it in the table…this is just to give us an estimate of volume. Don't worry about entering a volume for electricity. Once you get it signed, send it to OregonCleanFuels@deq.state.or.us. If you get it in before March 31, you can generate credits for Q1 2018.
- The CFP rules are in Oregon Administrative Rules Chapter 340 Division 253.
    - OAR 340-253-0320. For CNG used as a transportation fuel, subsections (a) through (c) determine the person who is eligible to generate credits.

      (a) Fossil CNG. For fuel that is solely fossil CNG, the person that is eligible to generate credits is the **owner of the compressor at the facility where the fuel is dispensed for use in a motor vehicle**.

      (b) Bio-based CNG. For fuel that is solely bio-based CNG, the person that is eligible to generate credits is the producer or importer of the fuel.

      (c) Blend of fossil CNG and bio-based CNG. For fuel that is a blend of fossil CNG and bio-based CNG, the generated credits will be split between the persons eligible to generate credits under subsections (a) and (b) to give each credits based on the actual amount of fossil CNG and bio-based CNG in the blend.

    - OAR 340-253-0330. For electricity used to charge an electric vehicle at non-residential locations, such as in public, for a fleet, at a workplace, or at multi-family housing sites, subsections (a) through (c) determine the person who is eligible to generate credits.

      (a) Owner or service provider of the electric-charging equipment. The **owner or service provider of the electric-charging equipment** may generate the credits. Only one entity may generate credits from each piece of charging equipment. The owner or the service provider must have an active registration approved by DEQ under OAR 340-253-0500.

      (b) Electric Utility. If the owner or service provider of the electric-charging equipment does not generate the credits, then an electric utility or an aggregator designated to act on the utility's behalf is eligible to generate the credits. The utility or its aggregator must have an active registration approved by DEQ under OAR 340-253-0500. Once a utility has made a designation under this

section that designation will remain in effect unless the utility requests a change in writing to DEQ.

(c) Backstop Aggregator. If an electric utility does not register or designate an aggregator under subsection (b), then a backstop aggregator is eligible to claim any credits that the utility could have generated for the following year under section (6).

- The CFP Obligation Estimator is what is used to figure out how many credits are generated by an amount of electricity. Click on the tab that says "Credit Estimator". Rows 18 – 27 are for electricity. Column 5 allows you to input the amount of electricity dispensed from an EV charger and Column 9 gives you the amount of credits.
    - You could then add in an additional column for the price of credits, currently trading at about $50/credit, to calculate total revenue.
    - You could also add an additional column to calculate credit revenue per kilowatt hour.
- Here is the California Air Resources Board preliminary draft proposed regulation order and staff report (executive summary). The aviation fuel issue starts on EX-3. Here is the full draft proposed regulation order. I haven't had time to go through the entire regulation for all the places that touches on aviation fuels…so have fun!
- LEAP has potential contract language for trading CFP credits.
- Graham Noyes is from the Low Carbon Fuels Coalition who represents developers, producers and marketers of all low carbon fuels including advanced ethanol, biodiesel, renewable natural gas, drop-in fuels, and renewable marine and jet fuel. graham@lcfcoalition.com 530-264-7157. I'll be checking in with him about what happens at LAX or other airline-specific pilots and his impression about what's going on with CARB's LCFS.

I know this is a ton of info, but let me know if you have any questions. We're always available to review materials, attend meetings, etc.

Cory-Ann Wind
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From: Breen, David [mailto:David.Breen@portofportland.com]
Sent: Wednesday, February 21, 2018 5:31 PM
To: WIND Cory Ann <Cory.Ann.WIND@state.or.us>
Subject: 2018 Aviation Fuel Overview for DEQ

Hi Cory…here is some background material for our meeting tomorrow. I will plan on being there unless the streets are too icy. If there is a problem, I will email you and we can reschedule. Either way this should provide you with a good overview of aviation rule.

Best regards.

-David

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