EPA proposes slashed market for America's cleanest fuel as observers ask "why?"

Jim Lane | October 15, 2013

For industry observers, there is much that is mystifying in the EPA's draft 2014 production targets for the US 2014 Renewable Fuel Standard.

But nothing more mystifying than the biomass-based diesel numbers.

The Digest reports back from Mandate-Land with answers for your questions.

If there's any fuel that reduces emissions — both of the CO2 type and the ordinary type that chokes kiddies in the back of the school bus — it's biodiesel. It's sustainable, available, affordable, reliable, green, clean, popular, growing, and has a lot of fans.

Consider the numbers. Ozone – 50 percent less than diesel fuel. Sulfur, sulfur oxides and sulfate emissions – essentially eliminated. Carbon monoxide – 48 percent lower. Particulate Matter – 47 percent lower. Hydrocarbons – 67 percent lower for biodiesel than diesel fuel. Nitrogen Oxide emissions are 10 percent higher. Polycyclic aromatic hydrocarbons – cancer-causing compounds – down 75-85 percent, excepting a 50 percent cut in benzoanthracene, which was reduced by roughly 50 percent. 2-nitrofluorene and 1-nitropyrene down 90 percent.

Result of all those positives? Biodiesel and renewable diesel are on target for 1.6 billion gallons of production this year. And the EPA is proposing that the target next year is 1.28 billion – 20 percent down.

Now, petroleum-exporting nations — we can understand why they might want to protect their market. The fuels may be (comparatively) dirty and (largely) imported, but they make a lot of money for a lot of people.

But, the Environmental Protection Agency? It's a shocker. Not the agency you'd expect to be wielding the last sword, in the last ditch, as a crusader for higher particulate emissions, more cancer-causing compounds at a pump near you, and a bigger market for Venezuelan crude.

Let's review the background on biodiesel and renewable diesel. There's no blend wall in sight, production volumes have been growing fast, prices have been relatively stable, and because it provides a market for soybean oil, it reduces prices for ranchers and poultry farmers who use the soybean meal as animal feed.

Here are answers to your questions regarding biomass-based diesel and the proposed 2014 and 2015 standards.

Q: What is EPA's stated method and target?

A: In the draft EPA document that is floating around the industry — which the Digest has reviewed — the EPA writes that it aims to "Base advanced volume on availability of advanced

biofuels but considering the blendwall" by [setting} the advanced volume at the sum of the cellulosic standard, the BBD standard and all available volumes of non-ethanol advanced." EPA adds that it intends to "Maintain biomass-based diesel std at 1.28 Bgal; since BBD is nested within the advanced biofuel standard, any excess volumes above 1.28 bill gal can compete with other advanced biofuels. There is limited availability of other advanced biofuels, which generates opportunities for biodiesel production above 1.28 bill gal to help meet the advanced biofuel standard."

Q. What is the proposed "higher volume" available within the advanced biofuel standard?

A. EPA has proposed that this pool be reduced to 2.17 billion RINs for 2014 and 2015.

Q. How many biodiesel gallons would it take to fill up those gallons and RINs?

A. Remember, the biomass-based diesel target is the only one expressed in actual gallons, as opposed to ethanol-equivalent gallons, or RINs. Accordingly, a biomass-based diesel standard of 1.28 billion gallons would be expected to generate somewhere between 1.92 billion and 2.1 billion RINs, depending on how much renewable diesel is produced within that target (renewable diesel generates up to 1.7 RINs per gallon, compared to the 1.5 RINs per gallon of biodiesel).

Q. So, how much practical room did the EPA leave for excess production in the proposed 2014 and 2015 standards?

A. A range between of 70,000-250,000 RINs, which translates to between 41,000 and 166,000 gallons, per year.

Q: Does EPA think that excess biodiesel production is possible?

A: On page 8, EPA writes: "We intend to propose that the BBD volume for both 2014 and 2015 be maintained at 1.28 bill gal," but notes "there is reason to think that some BBD volumes above 1.28 bill gall are possible in 2014 (- biodiesel could each 1.7 bill gall in 2013)."

Q. What is a reasonable forecast for available production capacity for biodiesel and renewable diesel in 2014 and 2015?

A. Through August, a total of 1.604 billions D4 RINs (representing a combination of biodiesel and biobased diesel) have been generated, representing 1.053 billion gallons of actual production. The industry is on a run-rate to produce a total of 1.57 billion gallons and 2.41 billion RINs for 2013.

Q: What about future capacity? Will even more come online?

A: New capacity is expected to be available in future years. For example, the Diamond Green Diesel renewable diesel plant just came online earlier this year, and will be able to produce its full capacity of 137 million gallons in 2014 and 2015. Not to mention biodiesel capacity that is relatively easy to add. REG estimates that there is currently 200-300 million gallons of unused capacity in the biodiesel industry that could be brought online.

Q. Given that industry is on track to produce 2.41 billion RINs this year, is adding production capacity and could add more — what was the advanced biofuel RIN target for 2013?

A. 2.75 billion RINs. What was not produced with biomass-based diesel was supplemented with Brazilian sugarcane ethanol.

Q. Sugarcane ethanol? Does it play a role in EPA's thinking — because of the ethanol blend wall?
A. Ah, grasshopper, you have hit upon it. As the EPA writes on page 25, "if BBD increases and the advanced standard remains unchanged, there is less need for sugarcane ethanol."
An industry observer writes: "one, they are trying to partially satisfy the oil industry on the blend wall (which is a mistake since the RFS was designed to overcome the blend wall not perpetuate it) and two, they are trying to keep Brazilian ethanol out (probably at behest of RFA) but they have screwed the whole program up in doing so."
Q. Is that why the EPA is proposing statutory ranges for every fuel, excepting biomass-based diesel? Even though biomass-based diesel has the widest range in EPA's production forecast?
A. Probably.
Q. Is that why EPA is slashing the most popular biofuel when there is no controversy over it?
A. Probably. But toss in there the possibility that someone at EPA has simply goofed up the numbers, forgetting that biomass-based diesel targets are expressed in gallons, and every other target expressed in RINs (ethanol equivalent gallons). In setting a target of 1.28 billion gallons, it might sound like there is a lot of room for excess production between 1.28 billion gallons and 2.17 billion in the proposed advanced biofuel target — but when you translate 1.28 billion gallons into 1.92-2.10 billion RINs, you see there's almost nothing there.
Q. What would be a reasonable biomass-based diesel standard for 2014 and 2015?
A. 1.7 billion gallons for 2014 and 1.8 billion gallons for 2015, minimally. The industry is already close to that rate.
Q. How would that translate to the 2014 advanced biofuel pool?
A. Something like 2.60 billion RINs.
Q. What would that result in, compared to the 2.17 billion RINs EPA is proposing? More jobs?
A. Yep.
Q. More energy independence?
A. Yep.
Q. Cleaner air?
A. Yep.
Q. Reduced CO2 emissions?
A. Yep.
Q. What does EPA stand for again?
A. Environmental Protection Agency.
Q. Is diesel demand growing in the US?
A. Yep.
Q. Is there a blend wall issue?
A. Nope.
Q. Does anyone in a position to know think those numbers can't be achieved?
A. Nope.
Q. So why doesn't the EPA simply get on with it?
A. Good question. We hope they will.