

Cornhusker Economics

The Ethanol Renewable Identification Number Price Fight and Nebraska Agriculture

Market Report	Year Ago	4 Wks Ago	4-6-18
Livestock and Products,			
Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight.	120.00	*	115.00
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	174.81	185.34	183.16
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	142.76	153.15	146.31
Choice Boxed Beef, 600-750 lb. Carcass.	209.99	223.63	217.41
Western Corn Belt Base Hog Price Carcass, Negotiated	57.94	60.50	46.26
Pork Carcass Cutout, 185 lb. Carcass 51-52% Lean.	74.69	74.23	67.76
Slaughter Lambs, woolled and shorn, 135-165 lb. National.	154.36	138.15	145.73
National Carcass Lamb Cutout FOB.	342.41	NA	373.73
Crops,			
Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	2.93	4.43	4.57
Corn, No. 2, Yellow Columbus , bu.	3.33	3.59	3.65
Soybeans, No. 1, Yellow Columbus , bu.	8.51	9.45	9.65
Grain Sorghum, No.2, Yellow Dorchester, cwt.	5.27	5.91	5.91
Oats, No. 2, Heavy Minneapolis, Mn, bu.	2.85	2.92	2.74
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	*	150.00	*
Alfalfa, Large Rounds, Good Platte Valley, ton.	65.00	97.50	97.50
Grass Hay, Large Rounds, Good Nebraska, ton.	67.50	*	*
Dried Distillers Grains, 10% Moisture Nebraska Average.	103.75	151.00	160.00
Wet Distillers Grains, 65-70% Moisture Nebraska Average.	42.50	51.00	51.50
* No Market			

The petroleum industry has launched a fierce political fight against the Renewable Fuel Standard (RFS), the regulations that require renewable fuels such as ethanol to be blended into the motor fuel supply. The industry complains that meeting those requirements has become too expensive. President Trump has been presiding over frequent White House meetings¹ to address the issue, with corn-state senators leading corn/ethanol constituents in confrontation with Texas senators leading the petroleum refiners.

Contrary to claims from both sides, capping Renewable Identification Number (RIN) prices as proposed by petroleum interests would have little impact on the industry. The real threat is reduction of the blending mandates to levels below those stipulated in the 2007 legislation (which the EPA has apparently been achieving by granting waivers for small refineries). What follows is an explanation.

What's an ethanol RIN?

A RIN, is a certificate of origin from an ethanol manufacturer that corresponds to the production of a particular gallon of ethanol. Fuel blenders obtain the RIN when they buy the etha-

¹ Examples: <https://www.reuters.com/article/us-usa-biofuels-trump/trump-pushes-big-corn-and-big-oil-to-break-biofuels-deadlock-idUSKCN1GD3VF> ; <https://www.reuters.com/article/us-usa-biofuels-trump/senators-ask-trump-to-suspend-epas-use-of-biofuel-waivers-idUSKBN1HG2SG>

nol. They turn in the RINs to the EPA to prove that they have complied with their Renewable Volume Obligation (RVO) under the 2007 Energy Independence and Security Act (EISA). These regulations comprise what is known as the Renewable Fuels Standard (RFS).

Why does a RIN have a price?

Because they are tradeable. The whole point of the RFS was to require more fuel ethanol to be burned than would result from the market without the intervention. To achieve this extra consumption, buyers' price must be lowered to convince buyers to buy more. At the same time, the ethanol producers' price must be raised to convince them to produce more. This is a bitter pill for the blenders caught in the middle, who now have the obligation to buy high and sell low (obtain a low value in the ethanol-gasoline blend) to achieve the higher volume requirement.

If RINs were not tradeable, each blender would just have to blend its own RVO, and there would be no such thing as a price for RINs. But tradability allows some blenders to avoid the blending process by purchasing RINs (with no ethanol attached) from a blender who has blended more than its own RVO (an E-85 blender, for example).

Blenders can't escape the pain.

Blenders can either buy ethanol and blend it, losing money on every gallon, or buy just a RIN, but the hurt to the blender is about the same either way – the loss on each gallon blended is about the same as the price he must pay for the RIN. The ethanol RIN price is currently about \$0.38 per gallon of RIN, a reflection of the price wedge between what the blender must pay to ethanol plants (around \$1.35 per gallon currently in Nebraska) and the value of the ethanol in the gasoline blend. It's the cost (at the margin) imposed by the RVO.

Why don't the blenders go broke doing this?

The reason blenders don't go broke buying high and selling low is that they can pass the loss along to the motorist. They charge a high enough price for the blended gasoline (E10, etc.) to pay for the gasoline component and also make up the loss on the ethanol component. The petroleum industry quite rightly points to the cost of RINs as the cost of meeting the RVO, even though they do recoup that cost in the price they charge for blended gasoline.

Didn't Philadelphia Energy Solutions (PES) recently go bankrupt because of this?

The petroleum industry would like us to think so, because this would enhance their arguments for scrapping or undermining the RFS. PES had been meeting its RVO by purchasing RINs rather than buying and blending ethanol, paying \$217 million for RINs just in 2017. But as noted above, the cost of buying the required ethanol high and selling it low would have resulted in blending losses of a similar size. This cost is an obstacle that all blenders have had to overcome. There is clearly something more involved in the PES bankruptcy, because we have not seen widespread bankruptcies in petroleum merchandising.

What would happen if the price of ethanol RINs were to be capped?

The answer is pretty simple: *Not much!* True, the volume of RINs traded would shrink. But even if the traded RIN volume went to zero, each blender would still be required to meet their RVO, internalizing the cost of buying high and selling low as described above. The total blending cost to the industry would be somewhat higher, because high-cost blenders would have to blend and suffer that cost, rather than buy RINs from lower-cost blenders. Tradability increases blending industry efficiency.

Capping the RIN price would reduce these efficiency gains, but the ethanol volume would not change because the RVO sets that amount, and therefore the price of ethanol would not change significantly, if at all.

What would happen to Nebraska if ethanol RINs were to be capped?

No significant impact on volume of ethanol means no significant change in the volume of corn and thus no impact on either industry in Nebraska.

Caveat: The renewable fuels market is more complicated than described above.

RVOs are specified on an annual basis, yet RINs can be carried over from one year to the next, creating a dynamic RIN price component not considered above.

There are several nested categories of renewable fuels, and the above doesn't distinguish them or explain their interactions. For example, the "blend wall" implies that only at a very low price will motorists be convinced to buy blends with more ethanol than E10, and there are very few pumps to provide such blends. So biodiesel RINs are being used to satisfy RVOs for the ethanol category (any "renewable fuel").

These and other idiosyncrasies of the RFS make it difficult to explain and analyze the renewable fuels markets precisely and completely, but none of them lead to a contradiction of the logic explained above regarding a cap on the price of RINs.

Don't be fooled: It's the RVO that matters.

A recent industry report² asserts that the EPA has recently granted 25 small-refinery waivers, which given the relevant definition of "small", must total over 1 billion gallons. This implies a reduction of at least 7% in the 2018 RVO, which is a significant impact on the industry, and RIN prices dropped substantially in response.

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² OPIS Ethanol and Biodiesel Information Service, April 9, 2018