Ethanol Spot Price Methodology

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About DTN

DTN provides subscribers with spot market price assessments for ethanol sold in the wholesale downstream oil and renewable fuels markets during typical business days, with a spot price representing the value of product in different geographic markets for immediate delivery. A spot price, sometimes called a cash price, represents the real-time value of a particular product with fungible characteristics.

Trade Sources

DTN spot prices are assessments based on surveys with market participants, who include producers, suppliers, refiners, blenders, jobbers, traders and brokers.

Spot Value

An ethanol spot price represents the value of physical ethanol fuel and its D6 Renewable Identification Number sold in the wholesale market. Spot ethanol trades in outright prices, meaning a trade would be conducted in US dollars per gallon; i.e. $1.50 gallon.

Frequency of Updates

DTN reports spot ethanol prices multiple times during a typical business day, with assessments based on current or last trades, or the latest bid/ask price spread. In a situation where a regional market is illiquid, DTN will determine its spot assessment by adding the transportation differential between that market and the spot value of ethanol at the Kinder Morgan operated Argo supply hub located east of Chicago, Illinois. Our day’s final assessment represents the spot value for ethanol for that day.

Location

DTN assesses spot ethanol prices for transactions at several regional supply and trade hubs across the United States. Markets covered include:

- **Chicago (terminal):** Spot prices reflect prompt delivery to and from Kinder Morgan's Argo supply hub situated east of Chicago, Illinois, and in-tank transfer transactions. Prompt delivery typically means current week – from same day to five days out.
- **Chicago (Rule 11):** Spot prices reflect ethanol in Chicago for this week shipment by rail to destination markets under Rule 11 rail industry regulation.
- **New York Harbor:** Spot prices reflect prompt delivery barged or railed into the Harbor, which includes deliveries at the Motiva operated Sewaren and Kinder Morgan operated Linden supply hubs in New Jersey. Ethanol railed to the Harbor comes from Chicago through Baltimore and Philadelphia, or shipped to Albany then barged into the Harbor FOB (Freight on Board). Barge deliveries are typically 10,000 to 15,000 bbl. Prompt delivery typically reflects a seven-day delivery window.
- **Houston:** Spot prices reflect ethanol railed or FOB (Freight on Board) barge deliveries into the Houston Channel terminal and Bayport terminal in Pasadena operated by US Development Group, as well as two Deer Park terminals, one operated by Kinder Morgan Energy Partners, and the other operated by Vopak. Prompt delivery reflects a one-week delivery window. BNSF and UP make product deliveries to these terminals.
- **Southern California:** Spot prices reflect ethanol delivered by unit or manifest train received at the Kinder Morgan-operated Carson or Lomita terminals located in the Los Angeles Basin. Burlington Norfolk Santa Fe Railway (BNSF) and Union Pacific service the area, moving ethanol from Nebraska or Iowa to California. Spot price delivery time is one week for unit trains, and up to two weeks for manifest trains. Spot prices in California reflect low carbon ethanol with 90.1 carbon intensity.
- **Northern California:** Spot prices reflect ethanol delivered by unit or manifest train received at the Stockton terminal near San Francisco. Burlington Norfolk Santa Fe Railway (BNSF) and Union Pacific service this route, moving ethanol from Nebraska or Iowa to California. Spot price delivery time is one week for unit trains, and up to two weeks for manifest trains. Spot prices in California reflect low carbon ethanol with 90.1 carbon intensity.

- **Pacific Northwest:** Spot prices reflect ethanol delivered by unit or manifest train received in Portland or at the Kinder Morgan-operated Eugene terminal in Oregon. Burlington Norfolk Santa Fe Railway (BNSF) and Union Pacific service this route. Spot price delivery time is one week for unit trains, and up to two weeks for manifest trains.
- **Phoenix:** Spot prices reflect ethanol railed to the Kinder Morgan-operated terminal in Phoenix, Arizona, and product values at Pinal Energy's ethanol production plant located about 20 miles south of Phoenix. Trucks then offload the product for distribution throughout Maricopa County. Spot price delivery time is one week for unit trains, and up to two weeks for manifest trains.

Product Characteristics

Ethanol traded in the US spot market is primarily corn-based produced domestically.

RINs

Included in spot ethanol price assessments are D6 Renewable Identification Numbers, the credits used by refiners, blenders and importers to demonstrate compliance with annual renewable fuel blending mandates under the Renewable Fuel Standard.

A RIN is generated when a qualified renewable fuel is produced or imported to the United States, and moves through the supply chain with the product. A RIN can be separated and traded in the open market, where it has a national value, with the RIN to be submitted to the Environmental Protection Agency to show compliance in meeting RFS targets. RINs are valued based on year since they expire.

Following the same methodology explained above, DTN also reports D6 RIN values separately.