

## 2019 Report on Ethanol Market Concentration

### **I. Introduction**

This Report presents the Federal Trade Commission





to eight months of the year.<sup>13</sup> Market participants interviewed report that the rule change has had little impact on the demand for E15.

Market participants expressed varying views on whether ethanol usage in the United States remains limited by the E10 “blend wall.” The E10 blend wall refers to the industry’s limited ability to consume fuel blends containing more than 10 percent ethanol because most gas stations in the U.S. only offer E10 gasoline, which has 10 percent ethanol content.

## **B. Prices and Margins**

Market participants stated that in 2019 prices have been low and margins have been low or negative. Figure 1 shows daily net cost of corn,<sup>14</sup> ethanol prices, and margins from the beginning of 2014 to October 18, 2019, expressed on a per-gallon basis.<sup>15</sup> Margins are measured by a return over operating costs estimated for a hypothetical dry mill in Iowa, as reported by the Iowa State University Center for Agricultural and Rural Development.<sup>16</sup>

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<sup>13</sup> EPA, Final Rule, Modifications to Fuel Regulations To Provide Flexibility for E15; Modifications to RFS RIN Market Regulations, 84 Fed. Reg. 26980 (June 10, 2019).

<sup>14</sup> Net cost of corn is the daily nearby futures price in Chicago plus Iowa corn basis. Weekly corn basis is calculated as the price that Iowa ethanol plants pay, as reported by the U.S. Department of Agriculture’s Livestock and Grain Market News, minus the Chicago Board of Trade nearby futures price.

<sup>15</sup> October 18, 2019 is the last date for which data from Iowa State University were reviewed for purposes of this Report.

<sup>16</sup> § Iowa State University, Center for Agricultural and Rural Development, Historical Ethanol Operating Margins,

**Figure 1: Ethanol Price, Corn Cost, and Margin**  
Jan. 2014 to Oct. 2019

From the beginning of 2019 through October 18, margins in the U.S. ethanol industry were estimated to have been very low compared to previous years, although recently they are expected to have returned to more normal levels. Estimated margins were low early in the year except for one brief spike in April, but increased significantly in September and October.<sup>17</sup> The average estimated



### **III. Analysis**

Section 1501(a)(2) of the Energy Policy Act of 2005 instructs the Commission to use HHIs to measure concentration in the U.S. ethanol production industry.<sup>24</sup> HHIs can provide a snapshot of market concentration based upon the number of market participants and their respective sales, production, or capacity.<sup>25</sup> An analysis of competition among market participants using these HHIs assumes that the U.S. ethanol production industry is an appropriate antitrust market, a

attributing those market shares to various market participants (producers and marketers). In regard to measuring market share, for purposes of this Report “production capacity” is defined to mean a plant’s maximum annual output of ethanol minus any required downtime for maintenance.<sup>27</sup> “Actual production” is defined to mean a plant’s actual annual output of ethanol.<sup>28</sup> In regard to attributing market shares to market participants, “producer” is defined to mean a firm that in fact manufactures the ethanol. As discussed below, “marketer” is defined to mean the firm, which (s)-1 (di) (di)-24 (e )JT3h.



**A. Concentration with Market Shares Based on Production Capacity**

FTC staff calculated producers' market shares based on their fuel ethanol production capacity.<sup>31</sup> Production capacity provides a useful and easily confirmable indicator of a producer's competitive significance.<sup>32</sup> In determining each producer's aggregate capacity, staff included the capacity of existing plants, as well as the projected capacity of plants currently under construction and plants currently undergoing expansion.<sup>33</sup> Incorporating capacity from such projects into current market share calculations is consistent with the approach set forth in the Horizontal Merger Guidelines.<sup>34</sup>

**1. Attributing Market Shares to Producers**

Under the first approach to market concentration, FTC staff attributed market share to each producer based on the producer's percentage of total production capacity. This method of calculation yielded an HHI of 464, a level regarded as unconcentrated under the Horizontal Merger Guidelines.<sup>35</sup> This HHI is slightly lower than the corresponding HHI of 480 in 2018.<sup>36</sup>

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<sup>31</sup> The RFA website provides frequently updated data on ethanol plant capacity and capacity expansion plans. Capacity information is also available on many individual producers' websites, some of which also provide details of construction and expansion plans. Staff obtained the production capacity for some producers directly from firm

## 2. Attributing Market Shares to Marketers

Under the second approach, FTC staff attributed the market share of each producer to the firm that markets for that producer. Some producers sell the ethanol they produce directly to blenders and end users. Many producers, however, enter into marketing agreements with third parties to sell their output. An ethanol marketer may represent and make limited decisions for multiple individual producers, essentially aggregating those producers' capacities under a single entity. For purposes of competitive analysis, attributing production capacity to marketers rather than to the actual producers provides a measure of industry concentration that captures this aggregation. For a producer that engages in direct sales, staff attributed the market shares to the producer itself.<sup>37</sup> For a producer that does not engage in direct sales, staff attributed the market shares to the third-party firm that marketed the producer's ethanol output. This approach yields an HHI of 701, unconcentrated under the Horizontal Merger Guidelines. This HHI is slightly lower than the corresponding HHI of 731 in 2018.<sup>38</sup>

### **B. Concentration with Market Shares Based on Actual Production**

EIA staff calculated producers' market shares based on actual production. Firms that produce more than eight million gallons of oxygenates (such as ethanol) per year must report to EIA their monthly production volumes by product. Using production data is instructive because capacity data have certain limitations, particularly insofar as stated capacity does not necessarily represent actual production capabilities. Ethanol plants can sometimes produce more than their stated design capacity (*ie.*, nameplate capacity) and sometimes operate at increasing rates as

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include a producer's acquisition of another producer's facilities that coincided with the restart or reconstruction of an idled facility. Alternatively, the HHI may exclude a plant that was converted to other uses, formally closed, or



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#### IV. Conclusion

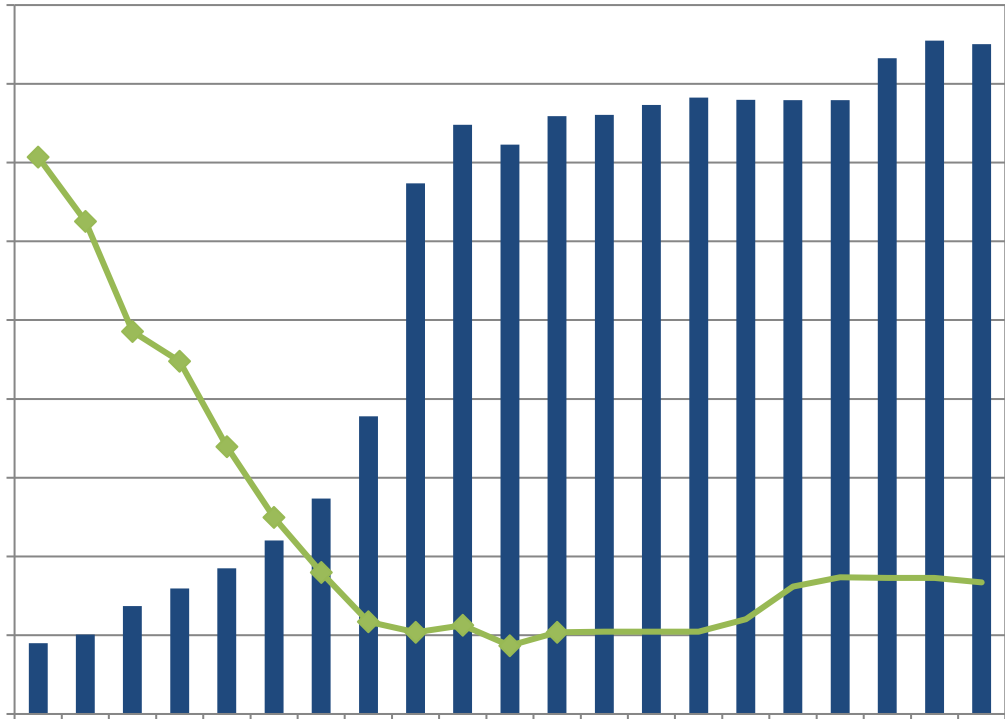
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**Figure 2: Domestic Fuel Ethanol Concentration<sup>43</sup>**

<b>Concentration Based on Production Capacity</b>	<b>2018 HHI</b>	<b>2019 HHI</b>
Shares attributed to each producer	480	464
Shares attributed to marketers for all marketing agreements	731	701
<b>Concentration Based on Actual Production</b>	<b>2018 HHI</b>	<b>2019 HHI</b>
Shares attributed to each producer	459	444
Shares attributed to marketers for all marketing agreements	759	725
<p>Note: Production capacity for 2019 includes the annual production capacity as of September 2019 and the capacity additions under construction and expected completions within 12 to 18 months after September 2019. Production data for 2019 are from the annual period of July 2018 through June 2019.</p>		

<sup>43</sup> 8 2018 Ethanol Report, ¶ note 1, at 12.

**Figure 3: Historical Fuel Ethanol Capacity and HHIs**



Note: Data are based on annual production capacity, which includes annual operable capacity and capacity under construction at year-end for 1998 to 2004, and as of October for 2005 to 2019. Data for 1998 to 2004 prior to the FTC's first annual ethanol report in 2005 are from the Renewable Fuels Association. HHI calculations attribute market share for production capacity to the producer.