

2018 Report on Ethanol Market Concentration

I. Introduction

This Report presents the Federal Trade Commission's ("Commission" or "FTC") concentration analysis of the ethanol production industry for 2018.¹ Section 1501(a)(2) of the Energy Policy Act of 2005 requires that the FTC annually "perform a market concentration analysis of the ethanol production industry . . . to determine whether there is sufficient competition among industry participants to avoid price-setting and other anticompetitive behavior."² Pursuant to the statute, the FTC must measure concentration using the Herfindahl-Hirschman Index ("HHI") and consider all marketing arrangements among industry participants in preparing its analysis.³ The FTC's report is due to Congress and the Administrator of the Environmental Protection Agency ("EPA") by December 1 of each year.⁴

As in previous reports, FTC staff ("staff") analyzed concentration based on U.S. ethanol production capacity and actual ethanol production. Staff's analysis does not address whether the concentration occurs in a relevant antitrust market (which would include both geographic and product aspects); instead, it addresses market capacity and production concentration. For each analysis, staff

billion gallons of which can be conventional corn ethanol.¹⁰ The 2018 advanced biofuels target is 11.0 billion gallons, at least 7.0 billion gallons of which must be cellulosic biofuel.¹¹

The annual use of renewable fuels did not keep pace with the statutory RFS requirements, prompting the EPA to decrease the requirements.¹² The EPA published these revised requirements in 2016,¹³ reducing the 2016 requirement from 22.3 billion gallons to 18.1 billion gallons, of which 14.5 billion gallons of conventional corn ethanol could count toward the 2016 RFS.¹⁴ For 2018, the EPA required 19.3 billion gallons of total renewable fuels, 15.0 billion gallons of which can be conventional corn ethanol.¹⁵

While market participants believe the U.S. ethanol industry will meet the RFS requirement in 2018, ethanol usage in the United States remains limited by the E10 “blendwall.” The E10 blendwall 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. Market participants noted no significant change in the demand for E15 and E85 (gasoline with 15 percent and 85 percent ethanol content, respectively) since 2017.

fossil fuel. 42 U.S.C. § 7545(o)(1)(B)(i). Advanced biofuels include, but are not limited to, cellulosic biofuel and biomass-based diesel. *Id.* § 7545(o)(1)(B)(ii)(I)-(VII).

¹⁰ *Id.* § 7545(o)(2)(B)(i)(I)-(II).

¹¹ *Id.* § 7545(o)(2)(B)(i)(II)-(III).

¹² The Clean Air Act provides EPA authority to adjust cellulosic, advanced and total volumes set by Congress as

B. Margins

Reported average margins in the U.S.

Market Trends

Domestic ethanol production and capacity increased since last year's Report. Domestic ethanol production from July 2017 through June 2018 increased approximately 2.5 percent from the prior 12 months, from 15.6 billion to 16.0 billion gallons.²¹ Domestic ethanol production capacity (including capacity under construction) rose to approximately 17.3 billion gallons per year.²² This marks the fifth consecutive year of capacity increases.²³

Ethanol exports have also increased. From July 2017 through June 2018, the U.S. exported approximately 1.6 billion gallons of ethanol, a 23 percent increase from the same period during the prior year.²⁴ This marked the fifth consecutive year of increased ethanol exports.²⁵

Over 100 firms produce or are capable of producing ethanol. The largest ethanol producer's share of domestic capacity is approximately 11 percent, unchanged from its 2017 share.²⁶

²¹ U.S. Energy Info. Admin. ("EIA"), Monthly Energy Review, Table 10.3 Fuel Ethanol Overview, *supra*note 14.

²² Staff's total capacity estimate takes into account information obtained through interviews with market participants and publicly available information, including information published online by the Renewable Fuels Association ("RFA"). See, e.g. RFA, Biorefinery Locations, <http://www.ethanolrfa.org/resources/biorefinery-locations/> (last visited Oct. 3, 2018). To estimate capacity, staff used operating capacity rather than nameplate capacity, which led to an estimated total in excess of EIA's published estimate of 16.3 billion gallons. U.S. Energy Info. Admin., U.S. Fuel Ethanol Plant Production Capacity (July 30, 2018),

III. Analysis

Section 1501(a)(2) of the Energy Policy Act of 2005 instructs the Commission to use HHIs to

expansion.³⁴ Incorporating capacity from such projects into current market share calculations is consistent with the approach set forth in the Horizontal Merger Guidelines.³⁵

1. Attributing Market Shares to Producers

Under the first approach to market concentration, staff allocated market share to each producer based on the producer's percentage of total production capacity. This method of calculation yielded an HHI of 480, a level regarded as unconcentrated under the Horizontal Merger Guidelines.³⁶ This HHI is the same as the corresponding HHI of 480 in 2017.³⁷

2. Attributing Market Shares to Marketers

Many producers enter into marketing agreements with third parties to market their ethanol to blenders and end users, while other producers sell their output directly. An ethanol

a measure of industry concentration that captures this aggregation. For producers that engage in direct sales, staff attributed the market shares to the producers themselves.³⁸

This approach yields an HHI of 731, unconcentrated under the Horizontal Merger Guidelines. This HHI is slightly higher than the corresponding HHI of 699 in 2017.³⁹

B. Concentration with Market Shares Based on Actual Production

Firms that produce more than eight million gallons of oxygenates (such as ethanol) per year must report to the EPA the HHI (p) by 3(2)(b)(u)4-(c)4(h)0 (m c)4 (indio)0(c)0 (0 p)4 p 2 (aget)

domestic firm. Additionally, to the extent U.S. prices increase because of the exercise of market power among a group of U.S. producers or marketers, it is likely that other producers would react by exporting

Figure 2: Domestic Fuel Ethanol Concentration⁴

Note: Annual figures are for operable capacity and capacity under construction at year-end for 1998 to 2004, and as of October for 2005 to 2018. The HHI figures shown are capacity-