

RINs Price Outlook

SAMPLE

By

Stillwater Associates LLC

Irvine, California, USA

 **Stillwater Associates**

Table of Contents

Executive Summary	1
1 RFS Overview.....	2
1.1 RINs Overview	4
1.1.1 Historic RINs Pricing Trends	7
1.2 Regulatory Landscape & Changes	8
1.2.1 RFS Reset Provisions	9
1.2.2 RFS Volumes Post-2022.....	9
2 Supply and Demand	10
2.1 Ethanol	10
2.2 Biodiesel (BD)	10
2.3 Renewable Diesel (RD)	11
2.4 Sustainable Aviation Fuel (SAF).....	11
2.5 Renewable Natural Gas (RNG)	12
2.6 Renewable Electricity.....	12
2.7 Other Qualifying Renewable Fuels	13
3 RINs Price Outlooks	13
3.1 Outlook for D4 (Advanced Biofuels: BBD) RINs Through 2031	13
3.1.1 Pricing Fundamentals	14
3.1.2 Outlook	15
3.2 Outlook for D5 (Advanced Biofuels) RINs Through 2031.....	16
3.3 Outlook for D3 (Cellulosic Biofuel) RINs Through 2031	17
3.4 Outlook for D6 (Renewable Fuel) RINs Through 2031	19
3.5 Outlook for D7 (Cellulosic Diesel) RINs Through 2031	20

List of Tables

Table ES-1. Projected Floor, Cap, and Expected D3 RIN Values (\$/RIN)	1
Table ES-2. D5 RIN Outlook (\$/RIN)	1
Table 1. Calculation of the 2019 RFS Obligations for a Hypothetical Refiner.....	3
Table 2. Annual RFS Volume Requirements.....	4
Table 3. D4 RIN History and Outlook (\$/RIN).....	16
Table 4. D4 and D5 RIN History and Outlook (\$/RIN)	17
Table 5. Recent D5 RIN Prices (\$/RIN)	17
Table 6. Forecasted wholesale gasoline prices and CWC values (2021-2031)	18
Table 7. Projected CWC Values (2021-2030)	18
Table 8. Projected Floor, Cap, and Expected D3 RIN Values (\$/RIN)	19
Table 9. Projected D6 RIN Values (\$/RIN)	20

Table of Figures

Figure 1. Fuel and RINs Lifecycle.....	5
Figure 2. Schematic of RFS Categories	6
Figure 3. Historic RINs Pricing (2012-2021).....	7
Figure 4. D4 RIN Price History and Outlook.....	15

Abbreviated Executive Summary

In this report, Stillwater provides a quantitative outlook for Renewable Identification Number (RINs) credit prices under the U.S. federal Renewable Fuel Standard (RFS).

Section One offers an overview of the RFS program, its regulatory landscape, changes, and RINs trends.

Section Two delves into the supply and demand of each low-carbon fuel used to satisfy the requirements of the RFS as these contribute to the market conditions that drive RINs prices.

Section Three is Stillwater's 10-year RINs price outlook, including a description of Stillwater's analysis approach and commentary on Stillwater's outlook methodology. This report includes ten-year forecasts prices for each D-Code of RIN.