

From Recovery to Growth

Just as the nation's economy cautiously emerged from the economic chaos of the global pandemic in 2021, the U.S. ethanol industry showed strong signs of steady recovery as well. Annual ethanol production again reached 15 billion gallons as most plants returned to near-normal production levels. Domestic consumption approached 14 billion gallons as drivers returned to the road and vehicle travel increased, particularly in the second half of the year. Exports, however, remained somewhat stagnant as overseas markets have been slower to recover, and protectionism abroad continues to frustrate global trade. At approximately 1.2 billion gallons, exports were lower than even 2020 and the lowest since 2016.

Recognizing the difficulty the ethanol industry faced, the Biden Administration took several actions to help. First, the Department of Agriculture announced a \$700 million program for COVID-19 pandemic aid and \$100 million package in biofuel infrastructure funding. In addition, late in the year EPA proposed regulations to begin to put the RFS "back on track," restoring 500 million gallons of illegally waived RFS demand from 2016, denying all of the pending small refinery exemption petitions, and setting the 2022 RFS conventional renewable fuel requirement at the statutory volume of 15 billion gallons. come the hallmark of the U.S. ethanol industry, however, producers throughout 2021 continued to pursue technologies and opportunities that will assure growth and diversification. From sustainable aviation fuels to carbon sequestration, the ethanol industry is investing in its future.

Policy will most certainly be critical to the industry's future growth as well. The RFA is working with its industry allies, automakers, state governors, and the EPA to respond to the Supreme Court's frustrating ruling on E15, perhaps by eliminating the volatility waiver for E10 blends and thereby creating a level playing field for both E10 and E15. The RFA will also continue its advocacy efforts to develop a national low-carbon clean fuel standard to complement the RFS; support the broad deployment of CCUS; and increase production and deployment of flex-fuel vehicles.

Rest assured, whatever 2022 may bring, the RFA and its member companies will be zeroing in on the opportunities to assure future growth and prosperity.

The Supreme Court dealt a blow to the ethanol industry by striking a Trump-era regulation allowing 15 percent ethanol blends (E15) to benefit from the same volatility waiver as 10 percent blends (E10). That ruling set back the effort to expand the domestic ethanol market and threatened to strand significant infrastructure investments made by retail stations, ethanol producers, and state and federal government agencies. Reflecting the resiliency that has be-



U.S. ETHANOL BIOREFINERIES BY STATE

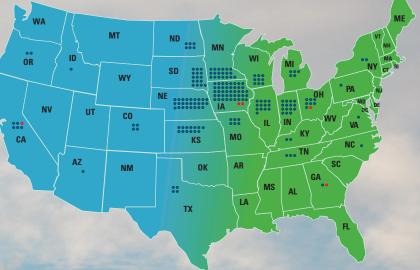
"Mr. President, biofuels are a readily available energy solution that deserve full consideration—not only for helping to stem the recent increase in fuel prices, which has subsequently accelerated inflation—but to serve as a foundational source of transportation emission reductions as part of your energy and environmental agenda. We call on your administration to utilize the full capacity of American agriculture to deliver on both fronts."

 From an October 2021 letter to President Biden from nine Midwest U.S. senators

U.S. ETHANOL PRODUCTION CAPACITY BY STATE (*Million Gallons per Year*)

	Existing Production Capacity	Capacity Under Constr./ Expansion	Installed Ethanol Biorefineries	Biorefineries Under Constr./ Expansion
lowa	4,678	80	43	2
Nebraska	2,351	-	26	-
Illinois	1,912	-	14	-
Minnesota	1,371	-	19	-
Indiana	1,388	-	15	-
South Dakota	1,253	-	16	-
Ohio	716	25	7	1
Kansas	602	-	14	-
Wisconsin	596	-	9	-
North Dakota	547	-	6	-
Texas	345	-	4	-
Michigan	350	-	5	-
Missouri	277	-	6	-
Tennessee	232	-	3	-
California	222	45	5	1
New York	165	-	2	-
Colorado	143	-	4	-
Georgia	120	10	1	1
Pennsylvania	120	-	1	-
Idaho	60	-	1	-
North Carolina	60	-	1	-
Arizona	55	-	1	-
Kentucky	50	-	2	-
Oregon	40	-	2	-
Virginia	2	-	1	-
TOTAL U.S.	17,655	160	208	5

Source: RFA



Installed Ethanol Biorefinery
New Biorefinery under Construction