July 27, 2021

The President
The White House
1600 Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear Mr. President,

As members of the Renewable Fuels Association (RFA), we share your vision for decarbonizing the transportation fuels sector and we applaud your commitment to addressing climate change. We support your goals of achieving a 50 percent reduction in U.S. greenhouse gas (GHG) emissions by 2030 and reaching net zero emissions economywide by 2050.

Low-carbon renewable fuels like ethanol are already helping our nation confront climate change by significantly reducing GHG emissions from the transportation sector. In fact, since 2008, the use of ethanol and other renewable fuels in the United States has prevented nearly **1 billion metric tons** of GHG from entering the atmosphere.[i]

Today's ethanol already reduces GHG emissions by **52 percent**, on average, when compared directly to gasoline.[ii] Furthermore, many of us are already producing advanced and cellulosic ethanol that is certified by the California Air Resources Board as providing a **65-75 percent** GHG reduction compared to gasoline.[iii]

But given the urgency of the climate crisis and the need to reasonably decarbonize, we can—and must—do more. **Therefore**, **the producer members of the Renewable Fuels Association are committing today to the pursuit of the following carbon performance goals:**

- **By 2030, ensure that ethanol reduces GHG emissions by at least 70 percent, on average, when compared directly to gasoline.** This equates to a 33 percent reduction in ethanol's average carbon footprint from 45 grams CO_2-equivalent per megajoule (g/MJ) today[iv] to about 30 g/MJ by 2030.

- **By 2050, ensure that ethanol achieves net zero lifecycle GHG emissions, on average**. As ethanol producers continue to adopt carbon capture, utilization, and sequestration (CCUS) and other low- and no-carbon technologies between 2030 and 2050, U.S. ethanol can achieve **net carbon neutrality,** on average, by mid-century or even sooner.

Ethanol's carbon footprint continues to shrink rapidly, as new technology and innovation have improved the efficiency of the entire production process. In fact, a recent study by Department of Energy (DOE) scientists found that ethanol's carbon footprint shrunk by 23 percent between

2005 and 2019.[v] While we are proud of these advances in efficiency and sustainability, many opportunities exist to deliver even greater GHG reductions in the near term.

In response to policies like the Renewable Fuel Standard, California Low Carbon Fuel Standard, and Oregon Clean Fuels Program, along with your recommitment to the Paris Agreement, the pace of low-carbon innovation and investment is accelerating in the renewable fuel sector. With the right policy signals, ethanol can achieve a net-zero carbon footprint in the years ahead, as the supply chain adopts CCUS technologies, uses more renewable electricity and biogas to power biorefineries, and expands carbon-efficient agricultural feedstock production practices. Innovative policies that encourage greater usage of renewable fuels will not only reduce the carbon footprint of our nation's fuel supply, but they will also inspire agricultural communities to deploy climate-smart practices that sequester carbon on farms as well.

Today's grain-based ethanol is already a low-carbon fuel that is helping to clean up our nation's transportation fuels. But with smart policy measures, including a commitment to rapidly increasing the availability of low-cost flex-fuel vehicles, ethanol can do even more. It can serve as an affordable zero-emissions fuel for light-duty cars and trucks, while also helping to decarbonize medium- and heavy-duty vehicles[vi], aviation, marine, and stationary power generation. Importantly, the fuel storage and distribution infrastructure already in place across the country can support rapid expansion of low- and no-carbon ethanol usage in a broad array of applications with very little additional investment.

Mr. President, RFA's members are committed to the goals of cutting ethanol's carbon footprint by an additional one-third by 2030 and reaching net zero emissions by 2050 or sooner. We look forward to working with your administration on the policy and regulatory actions—which include development of a national Clean Fuel Standard, support for CCUS, and deployment of more flex-fuel vehicles—that can make this ambitious vision a reality.

Sincerely,

Absolute Energy LLC
St. Ansgar, Iowa

Ace Ethanol LLC
Stanley, Wisconsin

Adkins Energy
Lena, Illinois

Aemetis Inc.
Keyes, California

Al-Corn Clean Fuel LLC
Claremont, Minnesota

Alto Ingredients Inc. – Pekin
Pekin, Illinois

Alto Ingredients Inc. – Magic Valley
Burley, Idaho

Alto Ingredients Inc. – Columbia
Boardman, Oregon

Alto Ingredients Inc. – Stockton
Stockton, California

Badger State Ethanol LLC
Monroe, Wisconsin

Big River Resources LLC
West Burlington, Iowa

Calgren Renewable Fuels LLC
Pixley, California

Chippewa Valley Ethanol Co.
Benson, Minnesota

CHS Inc. – Annawan
Annawan, Illinois

CHS Inc. – Rochelle
Rochelle, Illinois

CIE
Marion, Indiana

Commonwealth Agri-Energy LLC
Hopkinsville, Kentucky

Dakota Ethanol LLC
Wentworth, South Dakota

E Energy Adams LLC
Adams, Nebraska

East Kansas Agri-Energy LLC
Garnett, Kansas

Fox River Valley Ethanol
Oshkosh, Wisconsin

Golden Grain Energy LLC
Mason City, Iowa

Grain Processing Corp.
Muscatine, Iowa

Grain Processing Corp.
Washington, Indiana

Granite Falls Energy LLC
Granite Falls, Minnesota

Guardian Hankinson LLC
Hankinson, North Dakota

Guardian Energy LLC
Janesville, Minnesota

Guardian Lima LLC
Lima, Ohio

Heartland Corn Products
Winthrop, Minnesota

Highwater Ethanol LLC
Lamberton, Minnesota

Husker Ag LLC
Plainview, Nebraska

KAAPA Ethanol LLC
Minden, Nebraska

KAAPA Ethanol Ravenna LLC
Ravenna, Nebraska

Lincolnland Agri-Energy LLC
Palestine, Illinois

Mid America Bio Energy & Commodities, LLC
North Platte, Nebraska

Mid-Missouri Energy LLC
Malta Bend, Missouri

New Energy Freedom
Mason City, Iowa

Parallel Products
Louisville, Kentucky

Parallel Products
Ontario, California

Quad County Corn Processors
Galva, Iowa

Redfield Energy LLC
Redfield, South Dakota

Ringneck Energy LLC
Onida, South Dakota

Show Me Ethanol LLC
Carrollton, Missouri

Southwest Iowa Renewable Energy LLC
Council Bluffs, Iowa

Trenton Agri Products LLC
Trenton, Nebraska

West Coast Waste Inc.
Madera, California

Western New York Energy LLC
Medina, New York

Western Plains Energy LLC
Oakley, Kansas

cc:
Michael S. Regan, Administrator, U.S. Environmental Protection Agency
Jennifer Granholm, Secretary, U.S. Department of Energy
Thomas J. Vilsack, Secretary, U.S. Department of Agriculture
Gina McCarthy, National Climate Advisor

[i] Unnasch. S. and D. Parida (2021), GHG Reductions from the RFS2 – A 2020 Update. Life Cycle Associates Report LCA.6145.213.2021. Prepared for Renewable Fuels Association.
[ii] Lee, U., Kwon, H., Wu, M. and Wang, M. (2021), Retrospective analysis of the U.S. corn ethanol industry for 2005–2019: implications for greenhouse gas emission reductions. Biofuels, Bioprod. Bioref. https://doi.org/10.1002/bbb.2225. ("The reduction in the 58 gCO_2e/MJ CI of corn ethanol in 2005 to 45 g/MJ in 2019 (plus the LUC value of 7.4 g/MJ) provides significant GHG emission reductions compared to the CI of 93 gCO_2e/MJ for the US average petroleum gasoline blendstock.")
[iii] California Air Resources Board (2021), LCFS Pathway Certified Carbon Intensities. https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities (viewed June 17, 2021)
[iv] Lee, U., Kwon, H., Wu, M. and Wang, M. (2021), Retrospective analysis of the U.S. corn ethanol industry for 2005–2019: implications for greenhouse gas emission reductions. Biofuels, Bioprod. Bioref. https://doi.org/10.1002/bbb.2225
[v] *Id*.
[vi] See, for example, ClearFlame Engine Technologies, which has developed diesel-style heavy-duty engines that run on low-carbon ethanol. https://www.clearflameengines.com/