

Midwest farm communities can lead the way toward a zero-emissions future

Transitioning to a zero-carbon transportation future will reduce air pollution, help build the U.S. manufacturing base and make American businesses more competitive.

This change is already underway, and smart, flexible policies can ensure that rural communities that help fuel today's transportation benefit from it.

In particular, low carbon-biofuels, including ethanol, provide an opportunity to accelerate transportation sector emission reductions and support farmers and rural economies.



Bold, ambitious goals for clean transportation

EDF launched Power Up, America, a campaign focusing on the need to move to clean energy and clean transportation. It calls for all new cars to be zero emissions by 2035 and all new on-road trucks and buses to be zero emissions by 2040,¹ with a longer-term goal of zero-emissions U.S. road transportation sector by 2050.

EDF is also calling for the full decarbonization of the shipping sector by 2050, and for the aviation sector to be net-zero emissions by 2050, including at least a 35% reduction from 2019 levels by 2035.

Low-carbon biofuels have an important role to play in this transition

With appropriate environmental safeguards and accurate carbon accounting — spanning production, transportation, storage and combustion — ethanol and other low-carbon biofuels can help decarbonize vehicle transportation while the transition to electric and other zero-emissions vehicles plays out over the next few decades.

Ethanol is also expected to become the dominant fuel for aviation, and green electrofuels, like ammonia and hydrogen, are [expected](#) to become the dominant fuel for marine transport.

Investment in these alternative fuels represents an important economic opportunity that touches communities across the country while also cutting air pollution and greenhouse gas emissions.

“The reality is we're going to need biofuels and the biofuel industry for the foreseeable future. I think there's opportunities within rural America to promote rural renewable energy which can also be beneficial to the farmers, and ranchers and producers that we care about.”

— U.S. Department of Agriculture Secretary Tom Vilsack, February 2, 2021

¹ Note: Only on-road vehicles -- not farm equipment or other off road vehicles -- are included in near-term goals to have manufacturers shift to electric vehicles.

As the market for biofuels shifts, elected officials and community leaders must work together to find and grow diverse income opportunities for American farmers to maintain strong rural economies

The annual U.S. corn crop value is upwards of \$50 billion, with ethanol comprising the greatest market share (40%) — a significant and important income source for farmers and rural communities.

New revenue streams and market opportunities are available and growing quickly:

- Global population growth will require [50% more food production](#) by 2050, and U.S. farmers are well positioned to meet that increased demand. Even as the consumer market shifts toward electric vehicles, acres currently in production will continue to be valuable and productive.
- Carbon markets will increasingly provide opportunities for farmers and foresters to generate and sell credits from reducing greenhouse gas emissions and sequestering carbon. USDA can and should ensure access to, and benefits from, these markets are equitable.
- Increasing demand for wind and solar energy can also produce supplemental income for rural Americans. Wind already provides an estimated [\\$1.6 billion annually](#) in steady income for local communities and landowners, as well as revenue to state and local governments to fund roads and other critical services.
- Over 500 rural electric co-ops in [nearly every state](#) have added solar to their energy portfolios. Solar is attractive in rural areas because it is flexible, scalable, offers a way for farmers to rent land at [competitive prices](#) and can provide power in areas without connection to the national power grid.
- The market for biofuel-based plastic for uses such as packaging, utensils and bags is [expanding](#). Research and development in this area, as well as other uses for cellulosic ethanol and corn ethanol refineries, is also ongoing.



Farmers play an essential role in rebuilding a robust economy after the COVID recession, increasing global food security and fostering climate resilience. They have a long history of innovating in the face of changing market signals, and today, this is truer than ever.