REFA BRIEF

Renewable Energy Farmers of America

Addressing Concerns About Loss of Farmland and Farmer Well-Being

Many rural residents worry that renewable energy projects will take valuable farmland out of production and hurt farmers. According to research by the Rural Climate Partnership, 58% of rural residents say renewable energy projects would replace too much valuable farmland, while only 34% believe these projects would benefit farmers.

This concern is understandable. Farmland is precious, and farming families have worked hard to build their operations and preserve their land for future generations. But here's the reality: Renewable energy doesn't have to replace farming – it can work alongside it, bringing new opportunities and stability to agricultural communities.

Wind Energy: A Small Footprint With Big Potential

When people picture a wind farm, they often imagine wide swaths of land taken over by turbines. In truth, wind turbines use less than 5% of the land in a wind farm for pads and access roads. That means more than 95% of the area is still available for crops, grazing or other farm activities.

Farmers can plant right up to the turbine base, and the access roads built for installation often make it easier to move equipment and tend to fields. It's a way to generate clean energy and income without losing the working land.

Solar Energy: Smart Development That Supports Agriculture

Wind isn't the only renewable option that can coexist with farming. Out of 876 million acres of farmland in the U.S., current peer-reviewed research indicates approximately 550,000 – 600,000 acres are used for utility-scale solar (0.06% - 0.07%), with wind and solar combined occupying less than 0.1% of total farmland.

For context, urban sprawl converts more than 1 million acres of farmland annually meaning even at maximum solar buildout projections, renewable energy would occupy less land than is lost to development in just 2-3 years.

Agrivoltaics (also known as dual-use solar) allows farmers to grow crops or graze livestock beneath and between solar panels. Elevated panels can provide shade for animals in hot weather and even help certain crops grow better by reducing heat stress and conserving soil moisture.

As of March 2023, the U.S. had over 300 agrivoltaic projects producing more than 2.8 gigawatts of power. These setups are proving that energy and agriculture can thrive on the same land.

A Reliable Source of Income for Farmers

For many farmers, renewable energy leases are a financial lifeline. Wind and solar leases can bring steady payments that help farmers weather commodity price swings. Agrivoltaic systems can boost land efficiency by up to 75%.

These payments can mean the difference between keeping a farm in the family or selling to developers for non-agricultural use. And because renewable projects often occupy only a small portion of the property, the rest of the land remains productive.

Benefits Beyond the Farm Gate

Renewable energy projects also boost the local economy. They generate new tax revenue for counties and school districts, create jobs during construction and operation, and bring business to local contractors and suppliers. Infrastructure improvements – like upgraded roads – benefit the whole community, not just the participating farmers.

In Texas, for example, Enel North America signed the nation's largest solar grazing contract, allowing over 6,000 sheep to maintain vegetation at eight solar farms. In Minnesota, dairy cows graze under solar panels at the University of Minnesota's West Central Research and Outreach Center, improving animal comfort while producing clean energy. Research with dairy cattle shows solar panels providing shade can improve animal comfort and productivity.

The Path Forward: Thoughtful Development

Support for renewable energy grows when projects are designed with agriculture in mind. A Michigan State University study found over 80% of people are more likely to support solar if it's integrated with farming. That means planning projects that keep land productive, selecting designs suited to local agriculture and working closely with farmers to meet their needs.

The Bottom Line

When done right, renewable energy doesn't take farmland out of production – it gives farmers new tools to protect their land, strengthen their operations and pass down a thriving business to the next generation. Renewable energy can be another crop in the field – one that helps secure both our energy future and the farming way of life.

REFA is a farmer-led organization. Our members are farmer and rancher landowners who have not only navigated the development of renewable energy on their land but also have decades of experience seeing how these projects have impacted their land, their families and their communities. Get to know the farmers and ranchers behind REFA who can help you make informed decisions as a landowner.