



THE EDWARD L. ROSE CONSERVANCY



SUMMER / FALL 2021 NEWSLETTER

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Jesse W. Wells, Jr. of Montrose, Pennsylvania | 1954 - 2021

The Edward L. Rose Conservancy lost a valued contributor when Jesse Wells passed away on August 4.

Excerpting his obituary, "For many years, Jesse was the caretaker for the Edward L. Rose Conservancy, with all his vast experiences, he liked to refer to himself as 'Jack of all trades and master of none.' "

Jesse took care of our property as if it were his own. He will be missed.

To read the full obituary look [here](#).



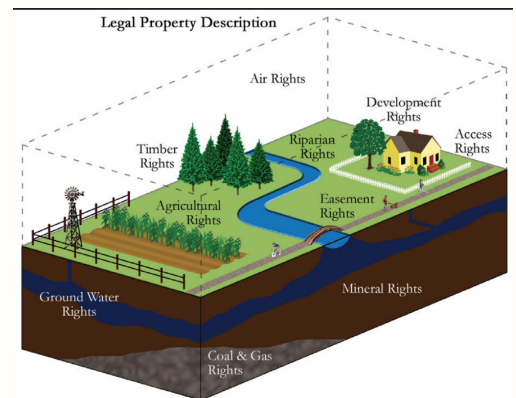
A Bit About Easements

As you are aware, the centerpiece of the Edward L. Rose Conservancy is its ability to protect land via conservation easements. A conservation easement is "a voluntary, legal agreement that permanently limits uses of the land." An estimated 40 million acres of land in the United States are protected in this fashion.

The purpose of an easement is typically to:

- protect a habitat
- protect working farms, ranches, and forests
- keep land in private hands but still on the tax rolls
- provide ecosystem benefits

The graphic to the right depicts a variety of property rights, of which the easement is merely one, and may allow for a variety of accessibilities, including utilities, simple passage, or, of most interest to us, protection from future development.



The concept of an easement is ancient. The early Romans called it "servitudes", which they defined as the right to the limited use of a piece of land without the possession of it. Early English laws pertaining to use of property were borrowed from the Romans, and extended to other territories, like India, in the English empire.

Did you know there is a National Conservation Easement Database, which compiles and maintains records from land trusts and public agencies across the country? Running a search on their database does reveal a number of easements owned by E.L. Rose. In Pennsylvania, but does not yet include the one we currently have in Broome County. Hopefully, that will be rectified.

Thanks in Order for Two Friends of the Conservancy



One Saturday earlier this summer Maya Ludwig was enjoying a walk around Silver Lake with her friend, Giulia Fantini and Maya's grandmother, Pamela Ludwig. Maya noticed that trailwork by the E.L. Rose Conservancy. had made their walk more enjoyable and a conversation ensued about what they could do to help the cause.

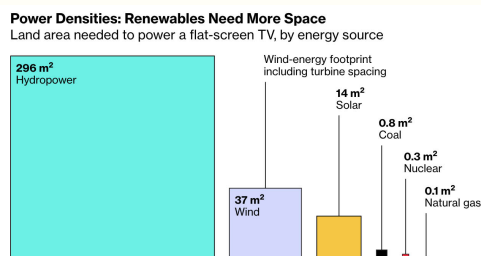
Maya wondered aloud if the Conservancy could manage even more trail improvements with a bit of extra cash, and proposed that she and Giulia take that on.

No stranger to fundraising, young Maya already had two bakesales under her belt, raising money for a charity in Narberth, PA. With no time like the present, she and Giulia finished their walk and set about planning to make goodies to sell the following morning.

Sunday found a flotilla of kayaks coursing the lake and many stopped by the Ludwig dock to partake of the freshly-made confections. The girls had projected that raising \$100 would be a successful venture, and created a thermometer graph to track their progress. By the time the bakesale had concluded later that Sunday, the girls had busted through their goal, ultimately raising \$204.56, which they proudly presented to the Conservancy.

Well done, and many thanks! You have a bright future in Development.

Land-Use Requirements for Renewable Energy



Note: Assumes 100-watt television operating year-round
Source: van Zalk, John, Behrens, Paul, 2018, The Spatial Extent of Renewable and Non-Renewable Power Generation

While there remain a significant number of climate deniers out there, the data is mounting that humans need to replace fossil fuels with renewables if we have any hope of halting or reversing the trend of weather calamities we can ascribe to a warming planet. How we get there is not a trivial matter.

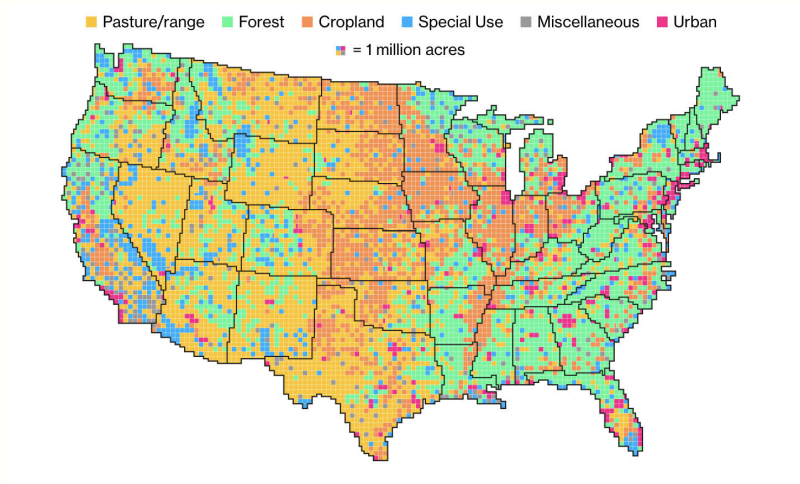
To achieve President Biden's goal of cutting U.S. greenhouse gas emissions in half by 2030, a lot of land will be required to make those sweeping changes. One of the challenges those advocates of renewable energy sources face is the sober fact that changes in how

substantial acreage of property is used must be made. On a per-watt generated basis, it's hard for renewable options to compete in terms of land use efficiency.

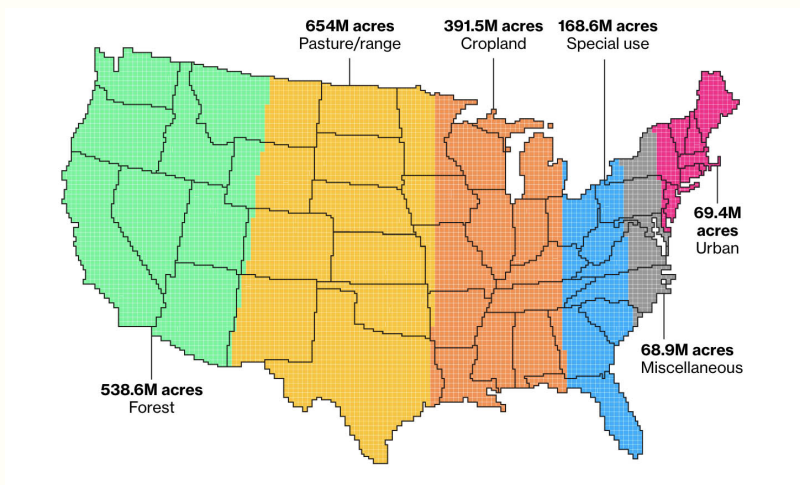
You want to install a 200-megawatt wind farm—the equivalent of a natural gas power plant which takes up a city block? Those turbines will need to be spaced over 13 square miles. To hit our goal of having our electric grid emission-free in the next fourteen years we need to increase the amount of green energy generated by 150%. To be clear, that is just for the grid, not to replace fossil fuel usage from ALL sources.

Let's say we make those grid transitions at a fairly modest rate of 10% per year. In only nine years, according to an analysis by Princeton University and Bloomberg News, we would have allocated acreage the size of South Dakota solely to fossil-free energy production. For our entire economy to run on green energy by 2050 let's add another four South Dakotas.

Here is a look at how land is currently used in the U.S.



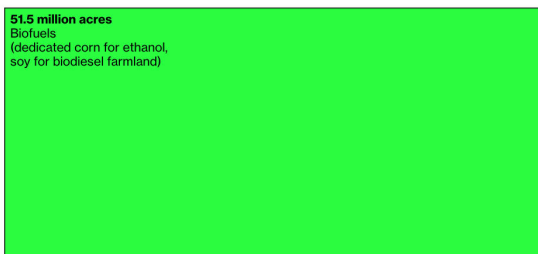
To better appreciate the categorical breakdown let's look at it this way:

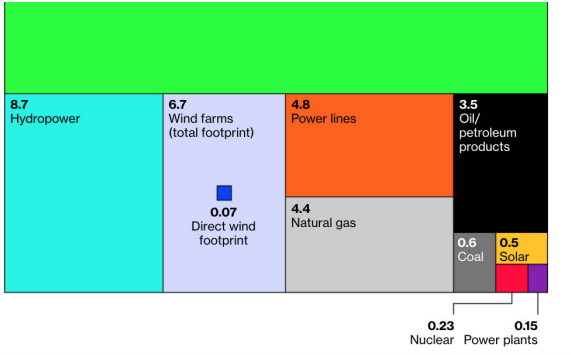


There are elegant ways to distribute energy generation. Wind turbines can co-exist in farmland; residential rooftops can absorb a prodigious number of solar panels beyond what solar farms can support. But to hit our ambitious goals, alternate sources (think hydrogen, molten-salt nuclear reactors, etc.) will be part of the debate.

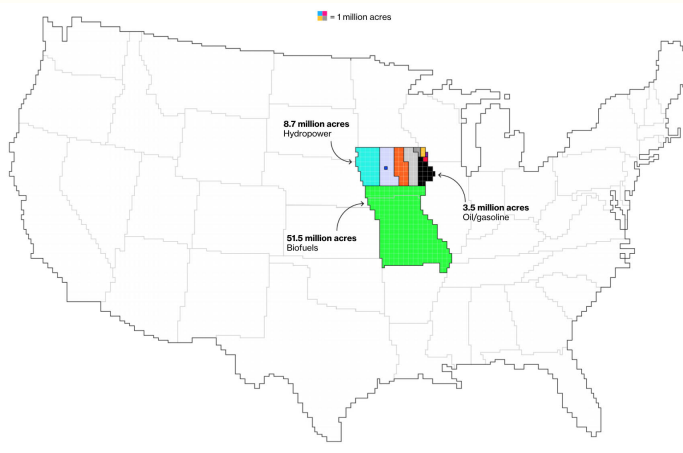
Our current land usage for all fuel types is about 81 million acres. Here is the breakdown by fuel type:

81 million acres





This is what 81 million acres looks like nationally:



Princeton University undertook an extensive look at what it will take to get to “net zero.” For those curious about the details, check out the study [here](#). We face an ambitious goal. But future generations are counting on us to confront it directly.

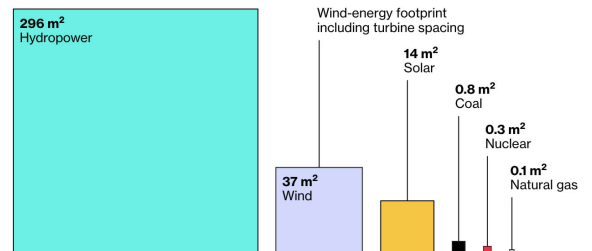
Land Use

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To achieve President Biden’s goal of cutting U.S. greenhouse gas emissions in half by 2030, a lot of land will be required to make those sweeping changes. One of the challenges those advocates of renewable energy sources face is the sober fact that changes in how substantial acreage of property is used must be made. On a per-watt generated basis, it’s hard for renewable options to compete in terms of land use efficiency.

Power Densities: Renewables Need More Space

Land area needed to power a flat-screen TV, by energy source

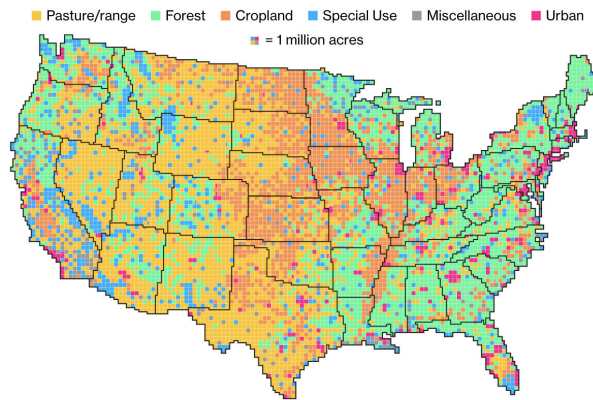


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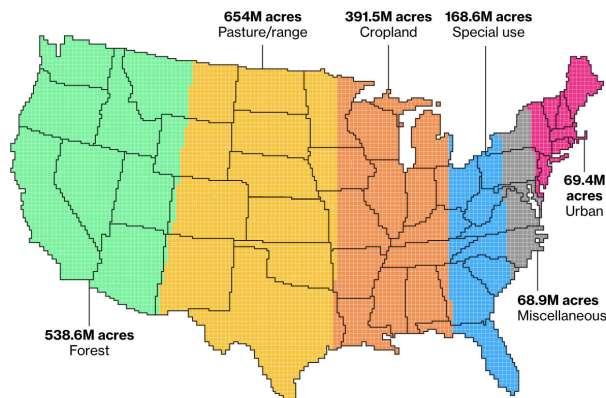
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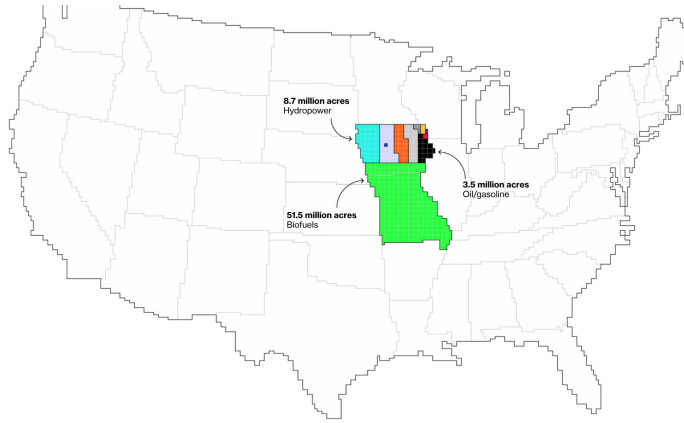
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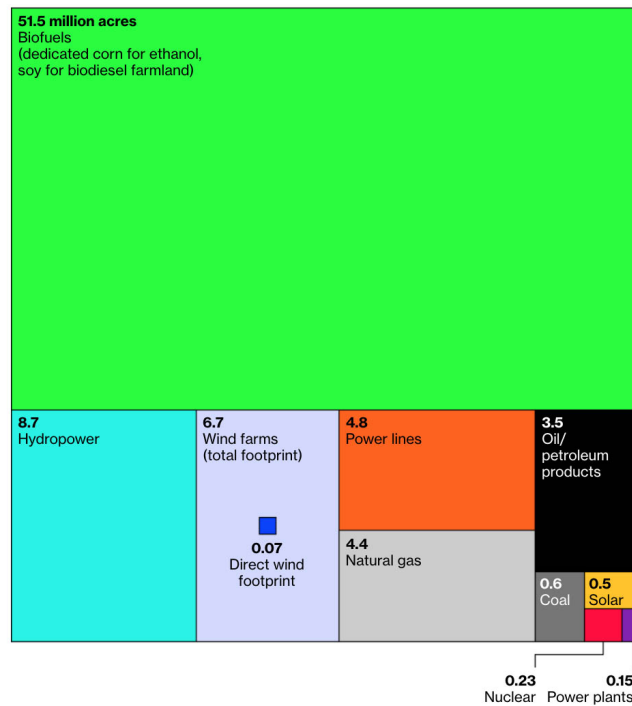
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