

**NEBRASKA TAXPAYERS FOR FREEDOM ISSUE PAPER:
SOLAR FARMS DO NOT BELONG IN NEBRASKA.**

BACKGROUND. Across Nebraska, solar farm companies are descending on Nebraska counties and cities like a pack of harpies, attempting to pressure public officials to allow the siting of both small and large solar farms. The purported intent is to supply additional power to NE communities but in reality is merely an attempt to take advantage of federal subsidies to locate huge arrays of solar panels that eliminate productive farmland and cause environmental problems for the communities supposedly helped. There are numerous small projects across the state and about 20 that generate at least 1 megawatt, according to the Nebraska Dept. of Environment and Energy. Currently, solar totals less than 1% of our state electricity, while coal constitutes almost 50% and wind about 25%. The rest is mostly nuclear and hydropower, according to this department. Farmers and ranchers in Nebraska continually approached to lease land for solar development, and these landowners face important long-term decisions about the future of their land and neighbor and community relations.

GENERAL REASONS. Solar farms in NE adversely affect our livelihoods. These monstrosities displace farms and farmers and reduce the amount of land available for agriculture and horticulture. Solar farms cause job losses in the traditional ag sectors and therefore decrease the economic health of NE rural communities. Also, concerns about the potential for solar farms as a source of radio frequency interference. Several counties approached do not need additional electricity for county homes and businesses provided by solar sources.

PROPERTY DEVALUED. Large solar farms negatively impact property values. No compensation for residents adversely affected this way. Worries that sales of property would not set at true market value. Prospective property buyers shy away from purchasing properties adjacent to or near solar farms. Solar panels prevent aerial spraying, on which many farms depend. Consider liability and insurance problems. Bearing on a fair agreement on a solar farm are the issues of land use impacts, duration of agreements, obligations of the landowner, compensation, and decommissioning.¹

ENVIRONMENTAL FEARS. Residents worry about habitat loss, the adverse impact on area wildlife, degradation of rural natural ecosystems, and potential for toxic chemicals leaching from solar panels. Large solar farms will change the visual character of a landscape and detract from its natural beauty. Noise from battery storage bothers neighbors. Fears abound about potential for fires from lithium-ion battery storage systems used at solar farms and the lag time in responding to such fires. Solar panels will impede crews responding to grass fires. "We can put out fires through using equipment and tractors and disks by tilling up the soil and turning it over so it has no fuel or something to burn," one firefighter said, "and with these solar panels in the way, we would not be able to do that, and it would be very detrimental to the land and to everyone around it." Frequent hailstorms, tornados, and high winds wreak havoc on solar panels, causing leakage of cadmium, arsenic, and strontium toxic chemicals. A recent major hail storm in western Nebraska disabled an entire solar farm, forcing the local community to return to traditional power sources. This Community Solar Project, a 4.4 megawatt solar field of 14,000 solar panels located in Scottsbluff, remained offline for weeks until repairs completed.



"It was our understanding that these solar panels were at least hail resistant," declared a city leader.² The CEO of GenPro Energy Solutions, which developed the solar farm in partnership with the Nebraska Public Power District, said the company used top-tier solar panels supposedly able to withstand most hail storms. These cataclysms scatter huge amounts of debris over large areas. The Federal Emergency Management Agency (FEMA) ranks NE in its highest category for hail risk on its national index.

POISONED LAND. Solar panels have a life span of about 25 years, and the land after that time might appear too contaminated for future farming. The installation of a solar farm may cause long-term damage to the soil and/or irrigation systems of farmland. Clearing and grading land for solar farms can lead to soil erosion and sediment runoff, potentially damaging nearby waterways and reducing ability of the land to support crops or grazing. The construction and operation of solar farms can lead to the loss of valuable topsoil, which is essential for agricultural

¹ UN-L Crop Watch. [Solar Lease Considerations for Landowners](#). Undated.

² Fox News, Thomas Catenacci, [Nebraska solar farm crippled by hail, underscoring power source's fragility](#), June 29, 2023.

productivity. Soil erosion occurs. Runoff from solar farms can contain chemicals and other pollutants that can contaminate water sources, impacting both agricultural activities and human health. Heavy machinery used to install solar panels can compact the soil, which can stunt root growth, decrease water infiltration, and increase runoff, which can cause erosion. It may take considerable time and expense after the termination of a solar lease and removal of equipment for the land to return to a condition suitable for crop production. The allocation of costs of returning the land to such condition should raise caution in a solar lease. Solar installations on the scale needed to supply power grids are massive, transforming pastoral vistas into industrialized landscapes of metal and glass surrounded by security fences. These sprawling arrays can alter everything from sun exposure to surface temperatures, which can have vast and unexpected impacts on plants and animals and even alter the area microbiome. The dark surfaces of solar panels absorb most of the light and heat that reaches them. However, only



about 15% of incoming energy then converted to electricity. The rest returns to the environment as heat. Because the panels are so much darker than the surrounding vegetation, large swathes of solar fields will absorb and emit heat at higher rates, which can have dire consequences for the surrounding land. According to Jeffrey Lovich, a research ecologist with the U.S. Geological Survey, some solar panels “can incinerate insects and burn the feathers of birds that fly through.”

DECOMMISSIONING. The industry standard for the lifespan of most solar panels is 25 to 30 years. The decommissioning of solar farms can pose significant challenges, including the removal of panels and the restoration of the land to its original condition. Forecasts suggest that 8 million metric tons of solar panels will have reached the end of their lifecycles by 2030, but less than 10% of decommissioned panels then recycled, which is problematic, because panels can break and leak toxic materials like lead and cadmium into the soil, oozing a cocktail of silicon tetrachloride and hexafluoroethane. Those toxic compounds are a concern not only during the panel lifespan but also after spent panels have lost their usefulness and must undergo disposal. Also concern about toxic substances leaking from the panels if damaged while disassembling.³ A strong decommissioning plan specifies what must happen after a solar facility no longer operating. Developers will claim that the net salvage value of their dead facility will exceed the cost of decommissioning it order to avoid cleaning a site. Or, they will sell the site before decommissioning time, meaning that they will be far away by the time decommissioning expenses appear.

UNRELIABLE ENERGY. Solar panels do not produce energy 24 hrs. daily, when the sun is not shining, or when covered by ice, snow, or blown materials. Disastrous weather shuts down solar farms for lengthy periods of time. Understand that the Trump Administration will end federal tax credits for solar energy, depriving developers of motivation to continue siting.

SUSPICION. Residents believe that developers are not transparent about their plans, that resident needs and concerns not adequately considered in the siting of solar farms. Short notice given residents for public hearings. Much of the energy created by solar farms would benefit large urban areas, not rural areas. Cutting corners by obtaining a conditional use permit, which lacks as many checks and balances and does not require re-zoning. When a developer does find land that meets its criteria, it may aggressively pursue a long-term solar lease with the owner of the land for the development of a solar farm. In these instances, a landowner should seek the advice of legal counsel before signing such lease, because it will affect the use of and earnings from the land for generations. A developer may try to structure all or a portion of the rent based on developer income and/or revenue. Landowners must avoid this option, because it reduces the certainty of income to the landowner. Our rural neighborhoods and communities now besieged by energy companies who are aggressively securing as much agriculturally-zoned land as possible in our counties to build large, utility-scale, industrial solar facilities. It is cheaper for energy companies to use our rich agriculturally-zoned land to take advantage of lower development costs.

TAXES. Solar leases may impact the current classification of land as agricultural for tax purposes. A solar farm can increase landowner taxes in future and may result in hikes of prior tax levies. A landowner should understand

3

Alice Jones Webb, [Does Solar Have a Dark Side? Solar impacts on rural landscapes and the family farm](#), Feb. 6, 2024.

the tax impact of a solar arrangement, and the lease should designate which party is responsible for taxes during the lease term, including possible tax increases.

COMMUNITY RELATIONS. A landowner should consider how a solar lease may impact the relationship with the community and adjacent neighbors. Community members may object to the installation of a solar farm in their community for a variety of reasons. Reasons include opposition to the appearance of solar panels on the landscape and concern over the impact of construction and maintenance of a solar farm on neighboring properties, including property values, pollution, or simply distrust of outside developers.

UNPATRIOTIC. Many of the solar panel parts come from Red China, a hostile nation.

THE BATTLE CONTINUES. Despite heavy resident and officeholder opposition, developers continue to lobby elected officials repeatedly to allow solar farm siting. Angry residents launch recall petitions against elected officials caving in to developers. Several county officials have resigned because of the controversy. A Saunders County project and a much larger one now underway in Cass County withstood challenges by many residents. There, neighbors joined to stop the project being developed for OPPD. Lancaster Co. farmers have filed a lawsuit to overturn a county board decision to approve the largest solar farm in the state. Landowners oppose the \$320 million, 1,800-acre Salt Creek Solar project and seek to stop it. They argue that they purchased their acreages



based on documents indicating that the adjoining land would remain agricultural. The lawsuit relates to whether solar-related equipment can sit on lots located within subdivisions specifically reserved for agricultural and rural use. Attorneys representing the solar developer and 4 landowners contend that solar is an agricultural use. “The desire by big-money business to do and get what they want overruns local governments – all the way down to the little guy just trying to do the best they can for their families,” said one farmer whose family has farmed in Nebraska for generations.

“When you move out to the country, ag is there, it’s not a new industry,” declared another farmer, “You’re making an informed decision that farming will occur in the place you are choosing to live. When you bring in a new industry, that’s not something you choose to live next to.” Opposition in a few counties intensified so much that officials have enacted extensive buffer zones between solar panel farms and the homes of non-participating landowners. Kearney County has required a quarter-mile buffer for several years. Gage County adopted regulations that include a half-mile buffer.

SOLAR ALLIES. Radical ecological groups cheer on solar farms as part of the war on fossil fuels. They do not care about the consequences for rural residents.

TAKE ACTION NOW. It is critical to get involved NOW, if you want to preserve our Nebraska quality of life. Do not allow greedy developers to turn NE ag land into industrial areas. Mobilize your neighbors and lobby your city and county elected officials to implement strict zoning regulations that will bar solar panel companies from siting here. Solar farming is not worth fracturing our communities. This controversy has turned neighbor against neighbor, official against official, splitting communities apart. It is unfair for one property owner to make money from a solar farm, if a neighbor experiences harm. Using the information above, lobby your county commissioners or supervisors to institute a moratorium on all new renewable energy projects and to enhance prohibiting zoning regulations. Suggest a return to more traditional energy sources such as coal, natural gas, and oil, options that are more reliable and abundant. Email netaxpayers@gmail.com for lobbying materials and join our NTF *County Watch Project*.

Research, documentation, and analysis for this issue paper done by **Nebraska Taxpayers for Freedom**. This material copyrighted by Nebraska Taxpayers for Freedom, with express prior permission granted for its use by other groups in the *NE Taxpayer Coalition Network*. 3-25. C

