Leading Michigan's Clean Energy Transformation

June 29, 2023

Consumers Energy
Count on Us®

Historic Michigan Company

- Serving the state since 1886
- Providing gas and/or electricity to 6.7 million residents
- Service in all of Michigan's 68 lower peninsula counties
- About 8,500 full-time employees
- One of the state's largest landowners and taxpayers

"If you have promised anything, carry through with it."
– W.A. Foote

Hometown Business

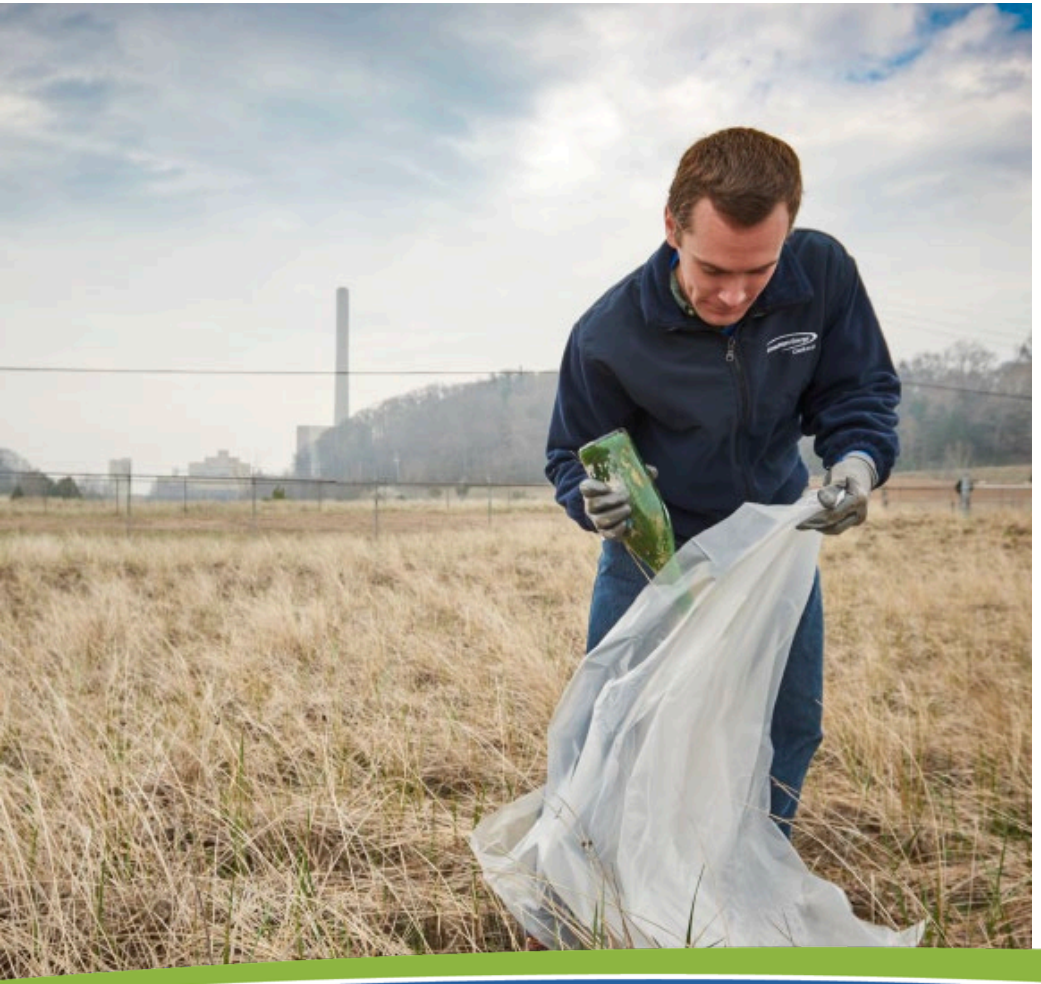
Consumers Energy in Clinton County:

Since 2018, received $160,000 in Foundation funds

Home to:

- 300+ employees
- $95M of company facilities

~$5.5M in annual taxes



Our Clean Energy Plan

Retire all coal-fired plants by 2025 and replace much of that power with **carbon-free energy sources** in the coming decades.

More Clean Energy

We plan to meet 90 percent of your energy needs with clean resources by 2040, **including adding nearly 8,000 megawatts of solar power**

Other Renewable Options

Wind Energy: We operate four wind parks in MI and are looking at viability of more

Renewable Natural Gas: Partnering with dairy farms to turn waste into energy

BESS: Battery storage offsets and smooth demand and cost when energy use is higher than normal

Crescent Wind Farm

Planting the Seeds for a Cleaner Energy Future

Crescent Wind, a $246 million investment in Michigan's clean energy infrastructure, started generating renewable electricity for homes and businesses in early 2021. The 166-megawatt project joins the fleet of wind farms we own and operate. Combined, our four wind energy farms can produce enough clean, renewable energy for nearly 250,000 households.

Utility-Scale Solar

Generates at least 100 MW

Developed and maintained by us and third-party providers – taking the burden off customers

More economical compared to traditional generation

Flexibility to respond to changing energy and community needs

How We Get There

Add 1,100 MW of solar by 2025

Supplement with natural gas generation through 2040

Competitively bid for energy from third-party providers

Customer energy saving programs and battery storage stabilize demand year-round

What does this mean for customers?

Affordable: Avoid **~$600 million of additional investments** through 2040 compared to a new coal plant or upgrades to existing sites.

Reliable: Meet Michigan's energy needs 24/7/365 without overbuilding

Safe: Cleaner air, land and water for generations to come

Business & Economic Development Demand

Business Renewable Energy Program

16 enrolled in April, including Henry Ford Health Jackson locations in and 150+ 7-Eleven stores statewide

- Keep daily energy use below an agreed amount customized to each business
- Powered 100% by our wind and solar resources in Michigan
- Current participants committed to ~380 MW of emission-free renewable energy

News Release

Henry Ford Health, 7-Eleven, Over a Dozen Others Make Commitments through Consumers Energy's Business Renewable Energy Program

JACKSON, Mich. Thursday, April 27, 2023

Sixteen Companies to Power Michigan Operations with Renewables

This Earth Month, Consumers Energy is announcing 16 businesses will use clean energy to power their Michigan operations. New commitments to Consumers Energy's Business Renewable Energy Program include more than 150 7-Eleven store locations and Henry Ford Health's Jackson-area locations.

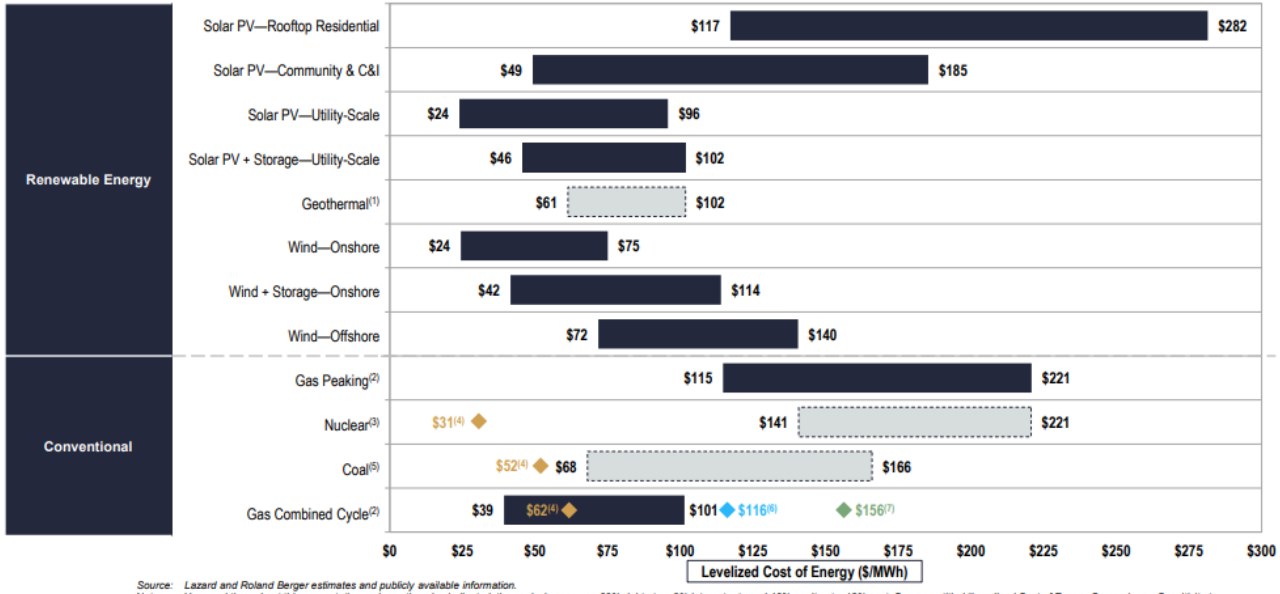
"Consumers Energy is powering Michigan's clean energy transformation, and we're doing it with employers who are catalysts to add clean energy sources," said Lauren Snyder, Consumers Energy's vice president of customer experience. "Their promises are making positive change happen even faster and building on our industry-leading Clean Energy Plan to develop new carbon-free energy sources here in Michigan."

Businesses joining the Business Renewable Energy Program agree to match energy they use with wind and solar energy Consumers Energy develops here in Michigan. In total, participating businesses have committed to roughly 380 megawatts of emission-free renewable energy supporting their sustainability goals and the local communities they serve and operate in.

Competitive Costs of Solar

Levelized Cost of Energy Comparison—Unsubsidized Analysis

Selected renewable energy generation technologies are cost-competitive with conventional generation technologies under certain circumstances



Source: *Lazard and Roland Berger estimates and publicly available information.*

Note: Here and throughout this presentation, unless otherwise indicated, the analysis assumes 60% debt at an 8% interest rate and 40% equity at a 12% cost. See page titled "Levelized Cost of Energy Comparison—Sensitivity to Cost of Capital" for cost of capital sensitivities.

(1) Given the limited data set available for new-build geothermal projects, the LCOE presented herein represents Lazard's LCOE v15.0 results adjusted for inflation.

(2) The fuel cost assumption for Lazard's unsubsidized analysis for gas-fired generation resources is $3.45/MMBTU for year-over-year comparison purposes. See page titled "Levelized Cost of Energy Comparison—Sensitivity to Fuel Prices" for fuel price sensitivities.

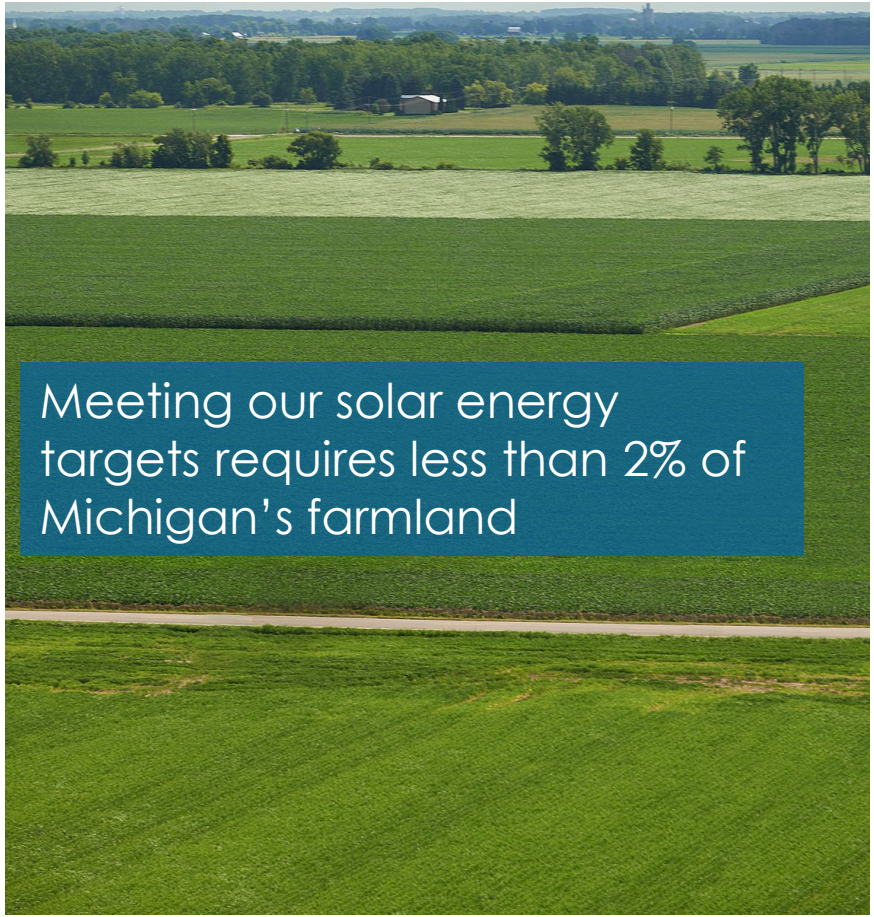
(3) Given the limited public and/or observable data set available for new-build nuclear projects and the emerging range of new nuclear generation strategies, the LCOE presented herein represents Lazard's LCOE v15.0 results adjusted for inflation (results are based on then-estimated costs of the Vogtle Plant and are U.S.-focused).

(4) Represents the midpoint of the unsubsidized marginal cost of operating fully depreciated gas combined cycle, coal and nuclear facilities, inclusive of decommissioning costs for nuclear facilities. Analysis assumes that the salvage value for a decommissioned gas combined cycle or coal asset is equivalent to its decommissioning and site restoration costs. Inputs are derived from a benchmark of operating gas combined cycle, coal and nuclear assets across the U.S. Capacity factors, fuel, variable and fixed operating expenses are based on upper- and lower-quartile estimates derived from Lazard's research. See page titled "Levelized Cost of Energy Comparison—Renewable Energy versus Marginal Cost of Selected Existing Conventional Generation Technologies" for additional details.

(5) Given the limited public and/or observable data set available for new-build coal projects, the LCOE presented herein represents Lazard's LCOE v15.0 results adjusted for inflation. High end incorporates 90% carbon capture and storage ("CCS"). Does not include cost of transportation and storage.

(6) Represents the LCOE of the observed high case gas combined cycle inputs using a 20% blend of "Blue" hydrogen, (i.e., hydrogen produced from a steam-methane reformer, using natural gas as a feedstock, and sequestering the resulting CO_2 in a nearby saline aquifer). No plant modifications are assumed beyond a 2% adjustment to the plant's heat rate. The corresponding fuel cost is $5.20/MMBTU, assuming ~$1.40/kg for Blue hydrogen.

(7) Represents the LCOE of the observed high case gas combined cycle inputs using a 20% blend of "Green" hydrogen, (i.e., hydrogen produced from an electrolyzer powered by a mix of wind and solar generation and stored in a nearby salt cavern). No plant modifications are assumed beyond a 2% adjustment to the plant's heat rate. The corresponding fuel cost is $10.05/MMBTU, assuming ~$4.15/kg for Green hydrogen.



Requirements

5 to 10 acres per MW

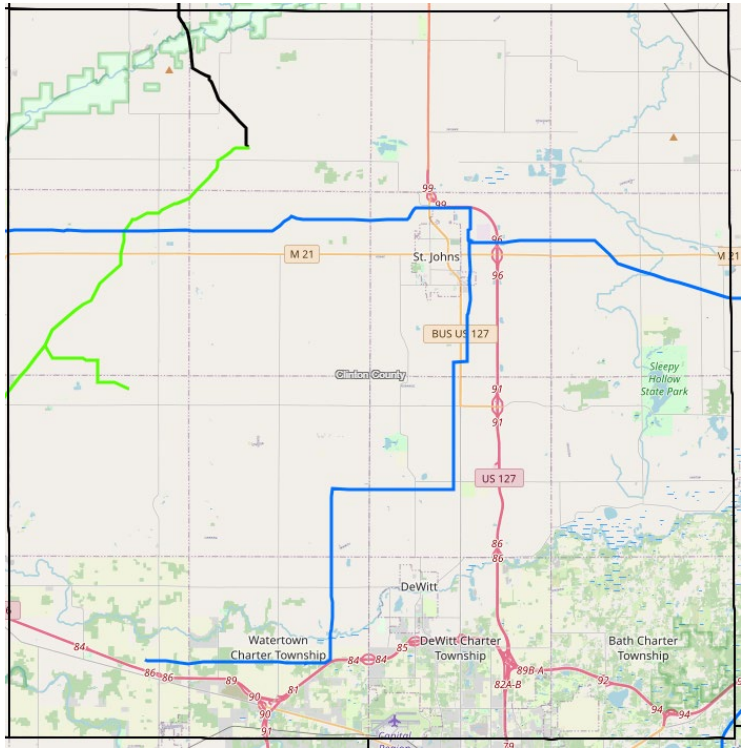
Relatively flat, open and treeless

Existing direct sun exposure

Proximity to existing high-voltage transmission lines

Interconnection of land per site

Clinton County's major transmission lines



Primary transmission lines in Clinton County are blue

North of M-21 to St. Johns, west of US-127 and Dewitt and through Watertown Charter Twp

MISO is considering adding transmission lines in Michigan

What Does a Solar Farm Look Like?

Good Project Design

Proactive and productive community engagement – our 18 community affairs managers are here to help

Investment in your community, infrastructure and energy reliability

Project fits within the surrounding community

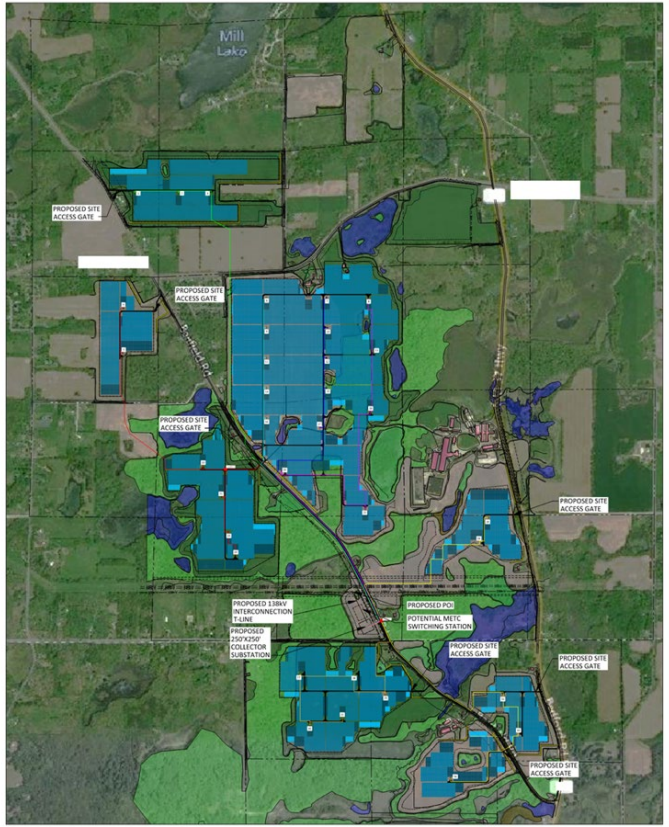
Conceptual Layout

Setbacks to allow efficient use of space

Leave wetlands, wooded acres and wildlife corridors connected

Recognize abutting uses

Design features that match rural landscape (fencing, plantings, etc.)



What approvals are necessary?

Mid-Continent Independent System Operator (MISO)
Regulates what can go on the "grid" and when

Michigan Public Service Commission (MPSC)
Requires Integrated Resource Plan (IRP) and approves pricing.

Environmental Permitting
EGLE, U.S. Fish & Wildlife, Army Corps of Engineers, etc.

Special Land Use
Local governments approve project sites and can suggest requirements

Solar Makes a Good Neighbor

Public Services: Energy companies maintain the solar farms that power nearby communities

Safety: Solar panels contain mostly non-flammable material. Only professionals work on our solar farms to ensure safe installation and environments

Noise: Inverters create a low-decibel buzz during the day. This is inaudible within 150 feet, which is equal to two tennis courts end-to-end

Glare: Panels are designed to reflect less than 2% of the light that hits them, which is less than grass, water and snow

The selfie smiles were genuine for Michigan Department of Environment, Great Lakes, and Energy Director Liesl Clark (left) and Consumers Energy Vice President for Customer Experience Lauren Youngdahl Snyder at the grand opening of Cadillac Solar Gardens in July.

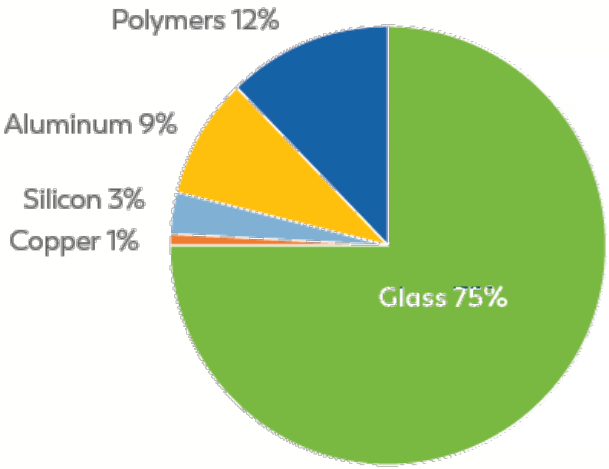
How does solar fit in my community?

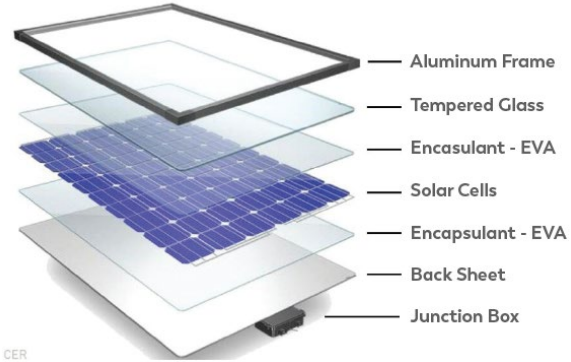
Solar solutions vary by location to fit unique needs

Your concerns are addressed through:

- Early community engagement
- Good project design
- Recognizing unique features of community

What's in a PV Solar Panel?



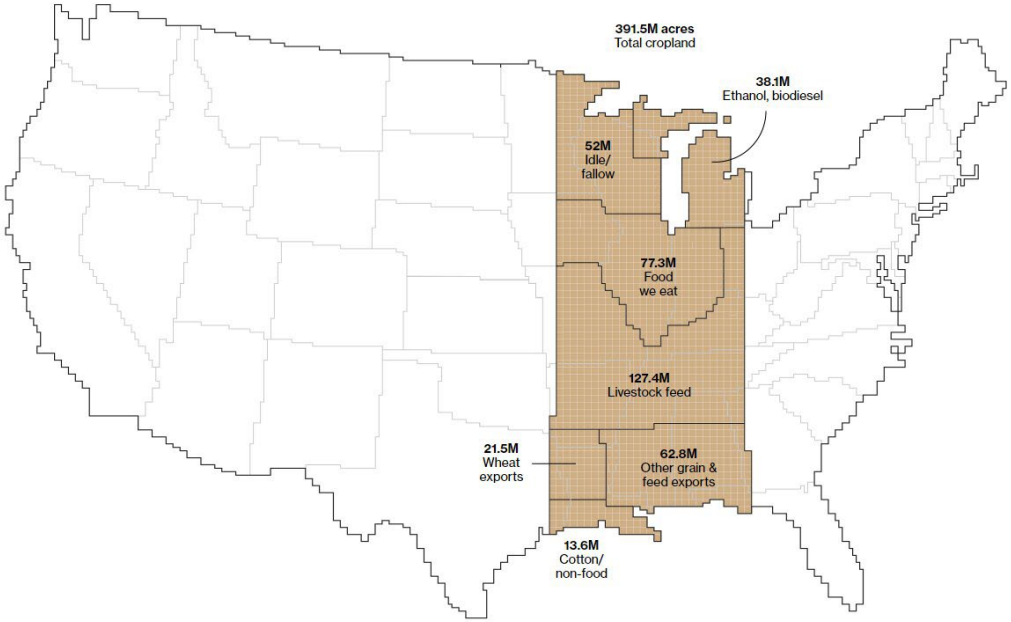


Solar Panel Reuse & Recycling

QUICK FACTS

- Solar components can be reused or recycled
- Approximately 85% of solar panel materials have established recycling protocols
- The solar panel recycling market is expected to reach $80 billion by 2050
- "In the ground" material is primarily steel piles - just like a fence post

What About Farmland?



Cropland use:

20% our food

13% idle/fallow

22% exports

10% ethanol (40% of corn)

Impact on Residential Values

NATION

Solar Power Add Topic +

Do solar farms hurt property values? Most Americans don't have anything to worry about, study finds

Elizabeth Weise
USA TODAY

Published 5:13 a.m. ET March 23, 2023 | Updated 10:44 a.m. ET March 23, 2023

"Previous analyses conducted by other researchers have found larger negative effects for homes located near confined animal feeding operations, landfills, fossil fuel plants, and highways," Ben Hoen, Electricity Markets and Policy Department at the Lawrence Berkeley National Laboratory scientist

Solar Community Benefits

Significant economic opportunities for landowners and communities

- Rural preservation/farm protection
- Ongoing income to farmers and landowners
- Increased tax revenue for schools, county services and townships

Solar Taxation

Typical utility-scale solar farm is a $100M+ investment

Land reclassified from Agricultural to Industrial Real Property

- **Utility Personal Property** – infrastructure used to transmit electricity
- **Industrial Personal Property** – infrastructure used to generate electricity

2 (Rev. 01-19)

GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RACHAEL EUBANKS
STATE TREASURER

DATE: December 14, 2021

TO: Assessors and Equalization Directors

FROM: Michigan State Tax Commission

SUBJECT: Guidance Regarding Valuation and Assessment of Photovoltaic (Solar) Electric Generation Systems

Following the Solar Ad Hoc Committee's Final Report, the State Tax Commission has evaluated its recommended procedures for valuing utility-scale photovoltaic (solar) electric generation systems where the electricity is produced primarily for sale, or which operate primarily as a commercial activity. The information in this memorandum contains revised guidance as to the treatment and valuation of real and personal property associated with utility-scale photovoltaic (solar) electric generation systems which produce electricity with a 2-megawatt name plate capacity or greater (hereinafter "Solar Energy System").

Supporting Local Farmers

DELTA FarmPress.

Harvesting the sun

As the demand for solar energy grows what are the implications for agricultural production?

Ginger Rowsey
June 17, 2022

"Labor issues were another factor that we took into consideration. When Dad retires there is no help to replace him," he said. "We don't want to sell the land. We want to keep it in the family, but it would be harder to maintain without additional employees."

"We want income to be able to pay the taxes and pass it down. That's what this is doing."

Direct financial support

Diversification of farming income

Keep land "in the family"

Able to farm now and in future

Let's Work Together!

Landowners:

We can discuss details about your property's potential for utility-scale solar development

Communities:

We can offer suggestions on creating solar ordinances to ensure project success while meeting community priorities

Questions?

Learn more details about solar and how we will work together

ConsumersEnergy.com/MiSolar