

Northern Haters

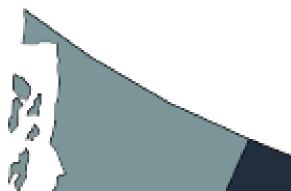
SOLAR PARK

Open House



NorthernWatersSolarPark.com





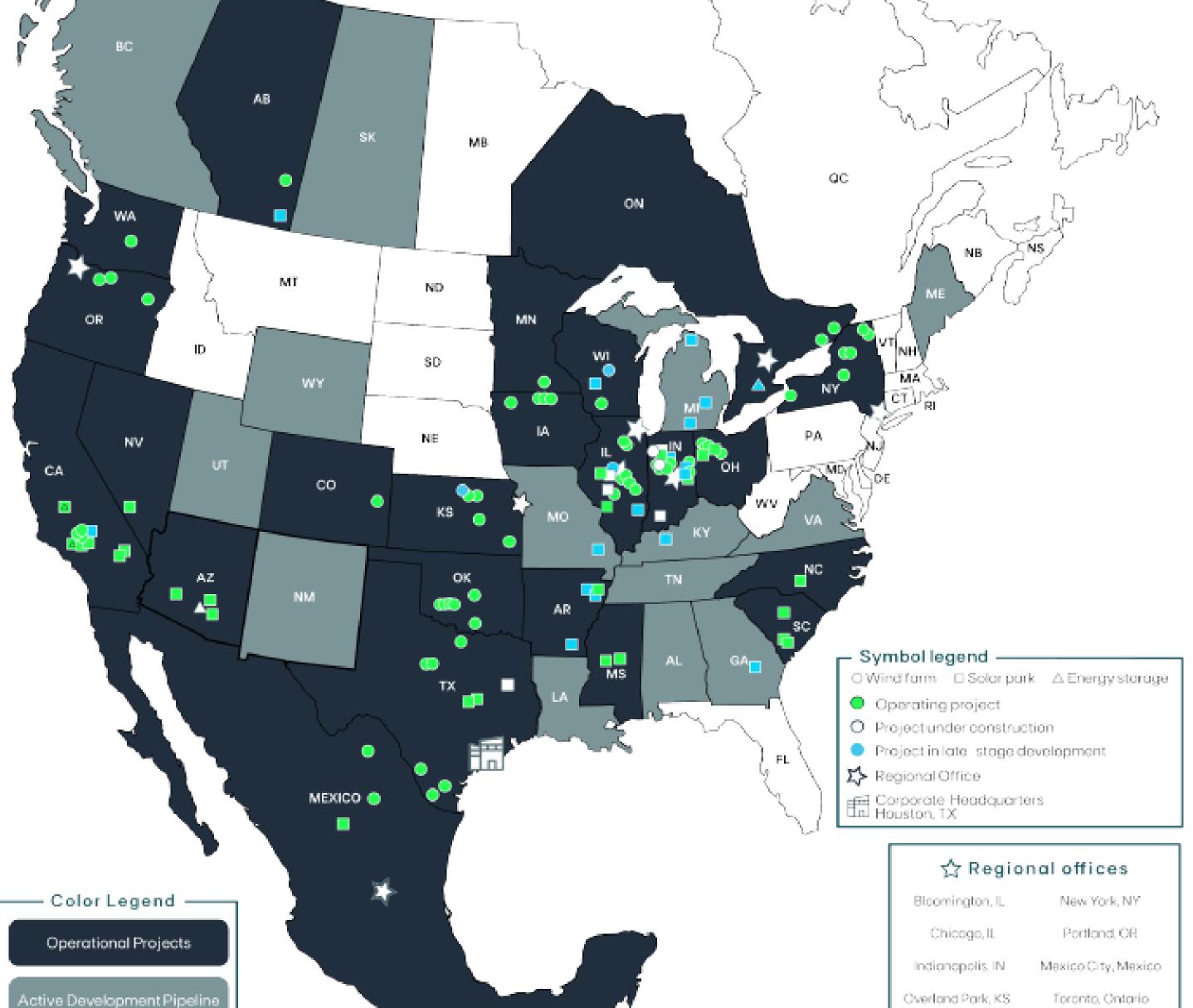


OPERATIONAL PROJECTS





11,400+
 MEGAWATTS



Overland Park, KS Toronto, Ontario

eoo

Economic & Environmental Benefits **OF EDPR NA'S OPERATIONAL PROJECTS**



CREATED 670+ permanent jobs¹ 10,300+ construction jobs¹



GENERATED the equivalent of 3.1+ million homes' energy consumption²



MAINTAINED 278+ million hours of operational history³



\$560+ million to landowners⁴ \$529+ million to local governments⁴



SAVED 17.6 billion gallons of water⁵ AVOIDED

16.9+ billion pounds of CO_2^6



INVESTED **\$16.8+ billion** (approximately) in capital⁷

alculated using a 35% capacity factor for wind based on 2019 AWEA Wind Powers America Ar Household consumption based on the 2022 EIA Household Data monthly average consumpti ach turbine in EDP Renewables North America's fleet and the hours of operation from 2007 to 2019 Ind local government payments through 2023.

electricity from Lee, Han, & Elgowainy, 2016 nouse Gas Equivalencies Calculator, January 2024

I Wind Technologies Market Report. Utility fixed-tilt solar projects are \$1.02/Wdc and single



Cheboygan County, Michigan

Northern Waters Solar Park will be located in Grant Township, Cheboygan County, between Twin Lakes Road and North Black River Road, north of Black Lake. The solar project will complement the area's agricultural resources, providing farmers with a stable, weather-resistant cash crop in the form of landowner lease payments. Northern Waters Solar Park will also generate millions of dollars in payments to local



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Northern Waters Solar Park's generation would be equivalent to the consumption of more than **30,000 Michigan homes.**¹



Northern Waters Solar Park would save more than 139 million gallons of water each year and would prevent the air pollution that causes smog, acid rain, and climate change.²

Economic Benefits

All economic data reflects the estimated amount throughout the life of the project.



CAPITAL INVESTMENT \$220+ million³







Multiple permanent jobs Will be created





Millions of dollars WOULD BE SPENT LOCALLY⁴

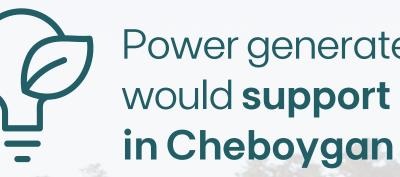


Hundreds of construction jobs WILL BE CREATED

> Power generation calculated using a 25% capacity factor. Household consumption based on the 2020 EIA Household Data monthly ave ²Assumes 0.58 gallons of water consumed per kWh of conventional electricity from Lee, Han, & Elgowainy, 2016. ³Assumes the average cost of utility fixed-tilt projects are \$1.02/Wdc, and single-axis tracking projects are at \$1.11/Wdc. Based on Q3 2023 SEIA U.S. Solar Market Insight.



Northern Waters Solar Park would help strengthen energy security for the state of Michigan and the United States, helping diversify domestic supply.



Power generated at Northern Waters Solar Park would support Michigan's electric grid in Cheboygan County and beyond.

STRENGTHENING LOCAL

SCHOOLS & SERVICES

EDPR anticipates that Northern Waters Solar Park will contribute **more than \$24 million in tax revenue** to the local government over the project's 35-year life, including **more than \$450,000 directly to the area school district in the first year alone.**

ESTIMATED TAX PAYMENTS TO COMMUNITY

Taxing District	Tax Payment Breakdown in Year 1	Total Lifetime Revenue (by 2063)
Cheboygan Area Schools	\$457,009	\$7,313,059
Cheboygan County Operating	\$672,394	\$6,895,525
Intermediate School District	\$205,295	\$2,105,341
Public Library	\$138,519	\$1,420,543
State Education Fund	\$51,477	\$1,403,356
County Road Department	\$118,565	\$1,215,906
Fire Department	\$116,609	\$1,195,844
Grant Township	\$116,609	\$1,195,844
Senior Citizen Fund	\$59,283	\$607,953
CCE 911	\$59,283	\$607,953
Ambulance	\$58,559	\$600,536
TOTAL	\$2,053,601	\$24,561,859

ADDITIONAL FUNDING OPPORTUNITIES

- Per the Cheboygan County Zoning Ordinance, Northern Waters Solar Park will enter into a Host Community Agreement with the County and provide \$220,000 at the start of construction. This money can be used as determined by Cheboygan County for emergency response public safety, or other infrastructure.
- Additionally, by permitting this project through the local governing bodies, Grant Township and Cheboygan County will each be eligible to apply for \$275,000 in discretionary funds toward Township and County improvments through an EGLE state funding opportunity.

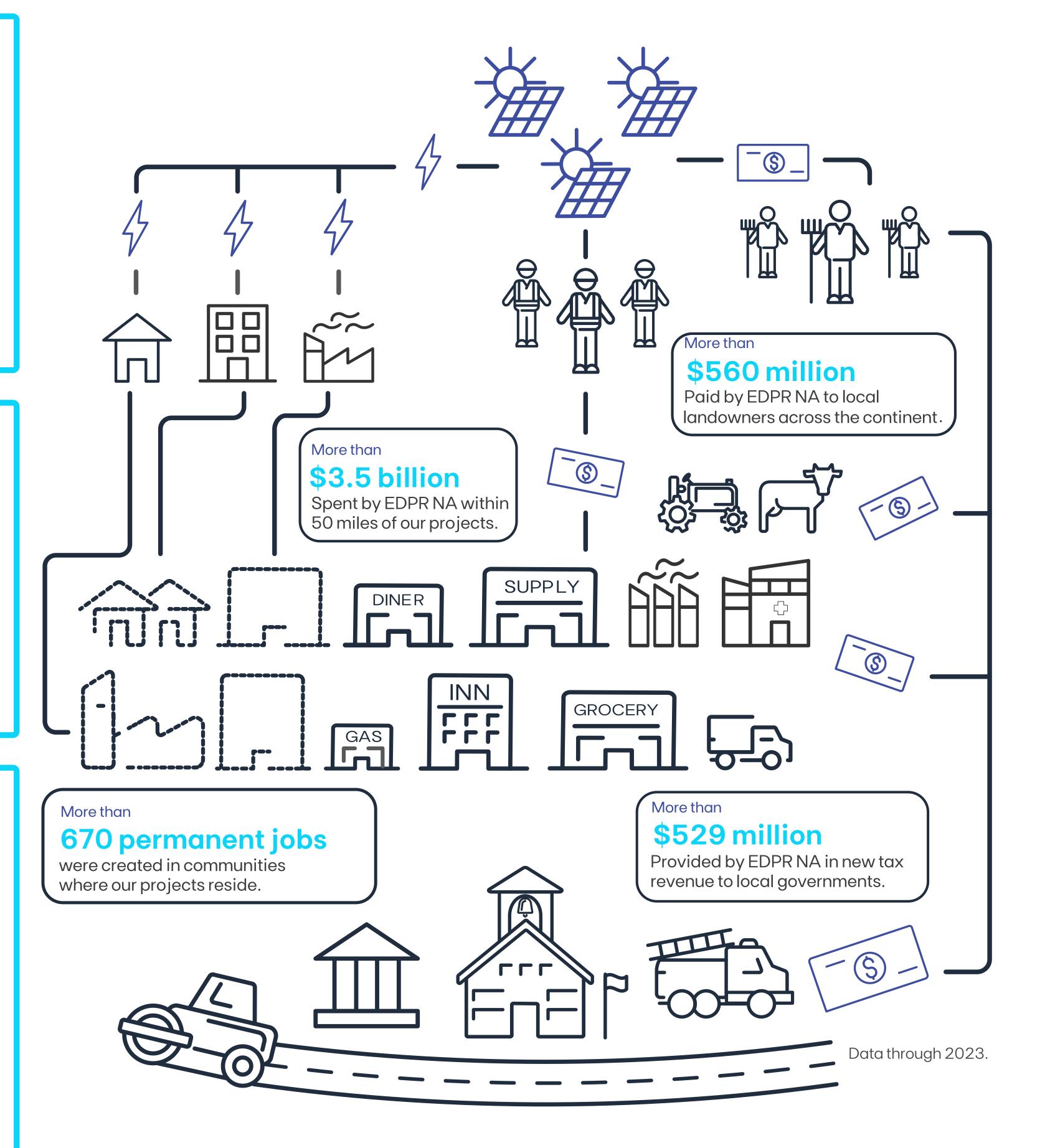
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Solar Energy Powering Local Economies

Explore the town below to see how the economic benefits of an EDP Renewables North America solar park flow through a community.

PROVIDING STABLE INCOME

The reliable revenue stream provided by a solar park lease agreement can give landowners the financial freedom to expand their business, save for retirement, or pay for college.



REINVESTING IN THE COMMUNITY

With the additional income from a solar park lease, landowners have greater resources to reinvest in the community by increasing their spending at area businesses.

ATTRACTING GROWTH

Companies are increasingly interested in powering their operations with clean energy at a fixed price. The availability of clean power generated by the solar park can help attract further business development to the project area.

STRENGTHENING LOCAL INFRASTRUCTURE

Taxes paid by the solar park, as well as increased economic activity from landowners and local businesses supported by the solar park, help fund essential services such as roads, schools, and fire departments.

SUPPORTING LOCAL BUSINESSES

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Solar park construction generates an economic boost for the project area, with hundreds of workers relying on local businesses for food, lodging, materials, and contractor services. Once the project is in operation, the solar park continues to count on local businesses for ongoing maintenance needs, such as vegetation management, panel washing, and equipment.

Protecting Wildlife & the Environment

As a company committed to a clean energy future, we take our impacts on the environment extremely seriously and devote significant resources to ensuring proper permitting, siting, and mitigation steps are taken.

The following measures have been or will be taken to protect the environment that will host Northern Waters Solar Park:



AGENCIES WORKED WITH:

- U.S. Fish and Wildlife Service
- Michigan Department of Natural Resources
- Michigan Department of Environment,
- Michigan Department of Agriculture and Rural
 Development
- Cheboygan County

Great Lakes, and Energy

Cheboygan County Road Commission



FIELD SURVEYS COMPLETED:

- Wildlife Habitat Assessment
- Hydrologic and Hydraulic Study
- Phase | Environmental Site Assessment
- Cultural Resources Survey
- Wetlands & Waters Delineation
- Geotechnical (Soil Sampling) Study



- The project will be designed to minimize or avoid:
- Impacts to wetlands
- Impacts to natural vegetation
- Impacts to critical habitat
- Impacts to cultural resources



DECOMMISSIONING COMMITMENTS

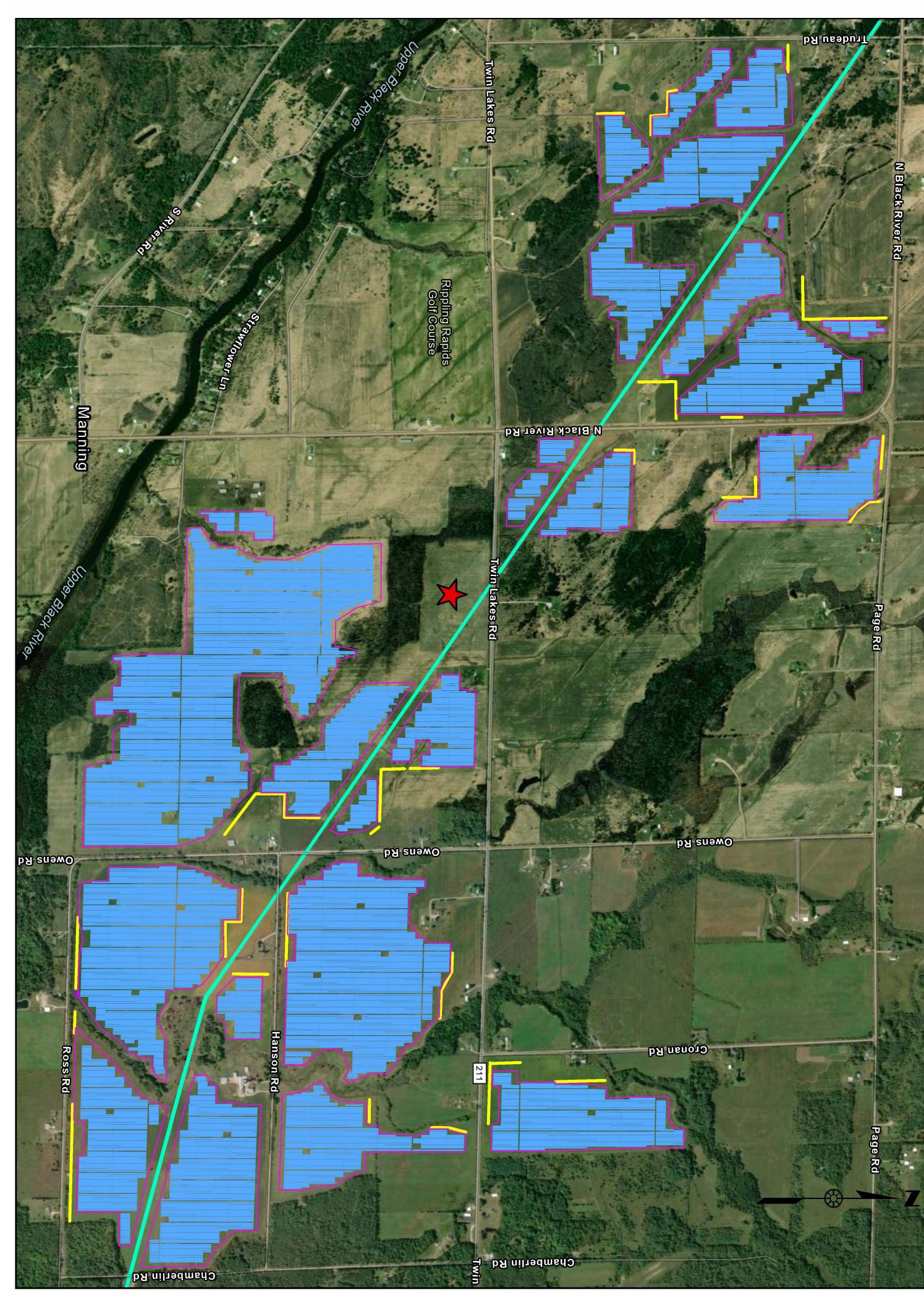
- At the end of the solar park's useful life, the solar park will be decommissioned or repowered. During decommissioning, the solar panels, inverters, and other related equipment will be safely removed, and recycled as much as possible. Project lease and local regulations require EDPR to remove equipment after the project life and restore the land to as close to its original, preconstruction state as possible. The decommissioning process will follow all regulatory guidelines, ensuring safe disposal or recycling of equipment, in compliance with environmental standards.
- Project leases at Northern Waters Solar Park and the Cheboygan County Zoning Ordinance stipulate that this project will remove all above-ground equipment as well as infrastructure buried less than 3 feet underground.
- Per the Cheboygan County Zoning Ordinance, the Northern Waters Solar Park will post a bond prior to construction to fully cover the cost of decommissioning the project, this bond is reassesed every five years. EDP Renewables is committed to being a good neighbor and steward of the land and will ensure that decommissioning efforts restore the land at the end of the project's life.

"My land is very important to me. EDPR hasn't done anything that

can't be removed off the land.

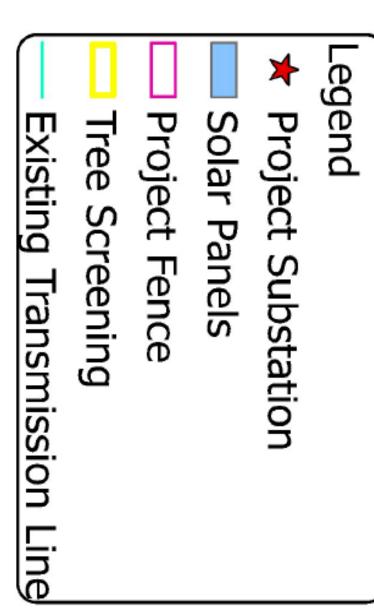
They've planted grass on it to keep it from eroding. They really respect the land and the landowners."

- Walt P., South Carolina landowner





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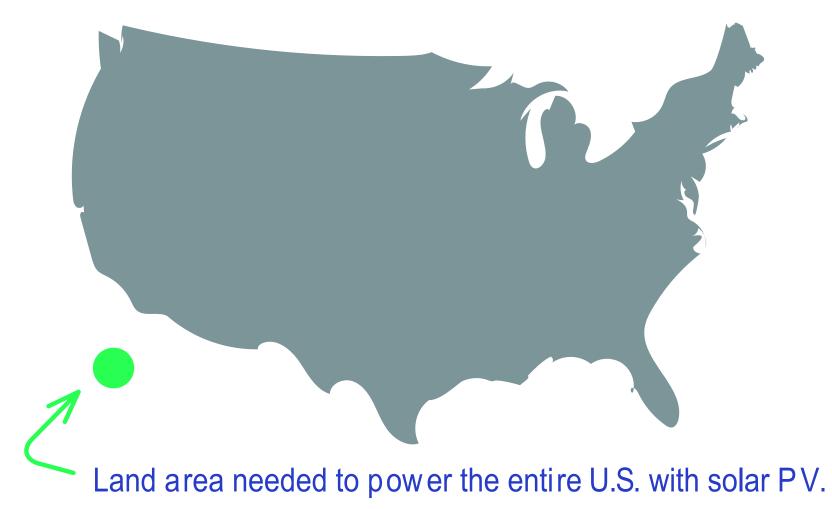


Project limeline			
NONS	NON SONS	N027	N O N O N O N O N O N O N O N O N O N O
 Community open house Submit Special Use Permit & Site Plan Application to County Planning Commission Sign County Road Use Agreement 	 Recieve Environment Great Lakes Energy (EGLE) Permit Select Engineering, Procurement, Construction Contractor (EPC) 	 Construction kick- off event Begin construction 	 Conclude construction Begin commercial operation
Community engagement efforts will take place throughout the entire development of the project, including opportunities for public input.	ill take place throughout ect, including opportunities for p	ublic input.	
*Schedule is subject to change.			
www.northernwaterssolarpark.com Samir.Jain@edp.com	m Samir.Jain@edp.com		
Northern Waters Preliminary Site Plan	minary Site Plan		

About Solar Technology

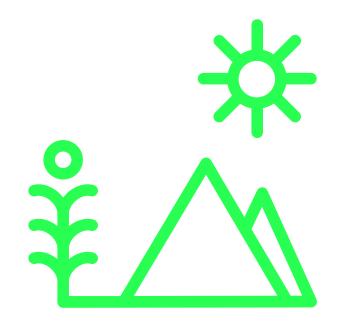
Solar is a critical and rapidly growing part of America's electric grid, producing enough energy to power more than 40.7 million homes nationwide and counting.¹

Solar projects are safe, clean, and have minimal impact on the land while providing a valuable economic boost to the rural economies that host them.



It would take less than 0.6% of total U.S. landmass to power the entire country with solar PV.² This represents half as much land as is currently being used to grow corn for ethanol production.³

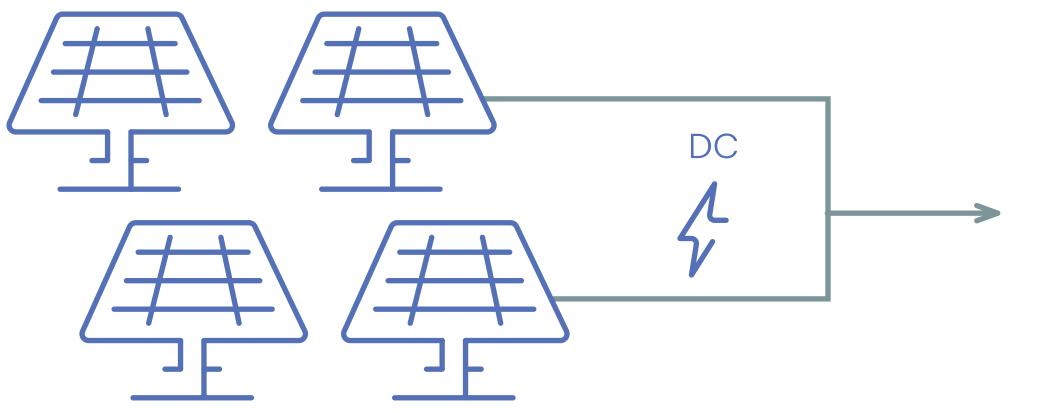
Solar is affordable to build and maintain, helping boost America's energy independence in the process. The price of solar has been falling for years, dropping by about 70% since 2010. Average operation and maintenance costs have fallen nearly 60% since 2011. Utility solar energy is cheaper than traditional forms of generation,⁴ giving utilities and corporate off-takers access to reliable, cheap energy at a fixed price. These guaranteed rates help keep consumer costs low and stable.

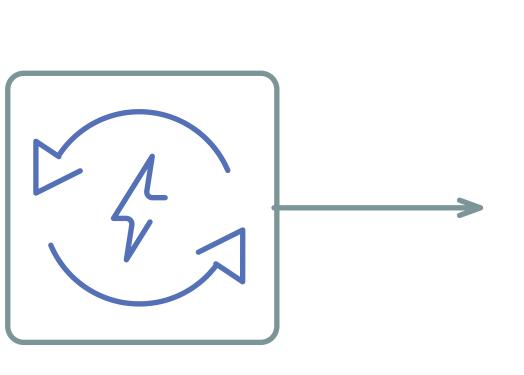


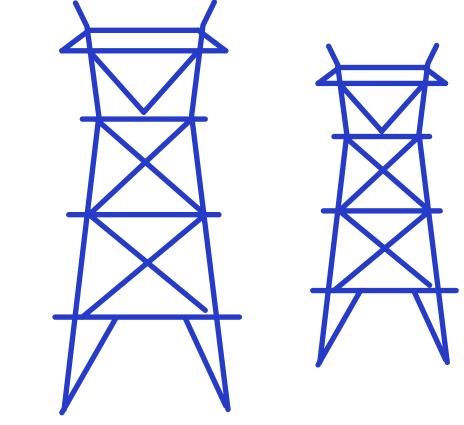
Requiring no water to generate power, solar energy saves 136 billion gallons of water each year that would otherwise be consumed by the traditional power industry.⁵

U.S. solar also avoids 224 million metric tons of carbon pollution annually, which is the equivalent of removing 53 million cars from the road.⁶

HOW A SOLAR PARK GENERATES ENERGY







The solar panels absorb sunlight and generate direct current (DC) electricity. Many have trackers installed to tilt toward the sun as it moves across the sky.

The electricity goes through an inverter, converting it to alternating current (AC) electricity.

Then it flows into the grid, supporting the region's energy needs.

¹Solar Market Insight Report – SEIA, 2025

² Paul Denholm, Robert M. Margolis. "Land-use requirements and the per-capita solar footprint for photovoltaic generation in the United States." 2008.

- ³U.S. Department of Agriculture Economic Research Service. "Feed Grains: Yearbook Tables." June 15, 2021.
- ⁴ Lazard. "Lazard's Levelized Cost of Energy Analysis Version 17.0." October 2024.
- ⁵Calculated using the Environmental Protection Agency's AVERT tool

⁶ Solar Energy Industries Association. "Solar Data Cheat Sheet." 2023.

Solar Park Construction

Building a solar park is a major construction project that takes approximately a year to complete and employs hundreds of people. Here are some of the goods and services we can typically source locally:

TECHNICAL & CONSTRUCTION EMPLOYMENT

- Civil contractors
- Concrete supply and delivery
- General laborers
- Safety staff
- Excavation and restoration
- Gravel supply and delivery

SERVICES

- Accommodations and catering
- Vehicle and equipment maintenance
- Vehicle and equipment rentals
- Security
- Fuel supply

Heavy equipment operators

Throughout the construction process, we work closely with local stakeholders and officials to ensure everyone is informed and construction activities are minimally disruptive.

SITE PREPARATION

To prepare a site for a new solar project, vegetation and large rocks are first removed. In some cases, a grading technique is employed to provide a level foundation for the construction of the solar modules. Great care is taken to salvage topsoil, prevent erosion, and maintain natural drainage patterns.

SECURITY FENCE

To protect the public during construction activities, as well as to prevent trespassing and vandalism, a fence is installed around the perimeter of the project location.

AYING UNDERGROUND CABLES

Buried electrical collection cables are installed to connect the solar arrays, inverters, and transformer. The buried lines are contained within the project location and buried to a minimum depth of three feet.

INSTALLING INVERTERS & TRANSFORMERS

The electricity generated by the PV panels is in the form of direct current (DC). Inverters are installed to convert the DC output of the PV cells into alternating current (AC) suitable for supplying the electrical grid. The AC power then goes through a transformer to increase the voltage before connecting to the electrical grid.

DRIVING & DRILLING PILES

Following site preparation, metal beams (typically steel or aluminum) are spaced out and inserted into the ground using piledrivers to serve as the foundation for the solar modules.

INSTALLING TABLES, TRACKERS, & PANELS

A typical solar park is comprised of thousands of photovoltaic (PV) panels that are mounted to tables and affixed to the foundation to form a solar array. In most cases, trackers are installed to aim the panels toward the sun and increase power production throughout the day.

INTERCONNECTION

The power then passes from the project substation, where the voltage was increased, to a substation owned by the utility. From the utility's substation, the renewable electricity will be sent to homes, businesses, and utilities.

FULLY OPERATIONAL

Once the solar project is complete, it will be monitored by a local operations team as well as a 24/7 remote facility to ensure all components of the system are operating properly. Vegetation within the project area will also be maintained.

Soldrasaneighbor

Solar energy powers millions of businesses, schools, and households every day with clean electricity safely produced on American soil.

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PANEL RESILIENCY

Solar panels are built to withstand extreme weather and are very resilient against high winds and hail.

EDPR projects are designed to withstand 11 strikes

PROPERTY VALUES

Research from multiple academic institutions and project-specific assessments **have shown little to no negative property value impacts from solar parks on surrounding homes**.⁴

of hailstones 2.2 inches in diameter. If an extreme weather event harms the solar park, EDPR will quickly clean up any damaged equipment and the surrounding area, and replace broken components as needed.

Projects are monitored 24/7. The local

Operations team is on-site during the day, and our continuously staffed Remote Operations Control Center inside our Houston headquarters monitors at all times including throughout the night, receiving nearly real-time data for the entire operating fleet, allowing them to identify issues and respond appropriately.

AREA EFFECTS



Solar panels are nearly silent neighbors.

Inverters are typically at least 100 feet from the nearest dwelling, and the sound of inverters from this distance is quieter than a refrigerator hum. As inverters only make sound when they are working, no noise is typically emitted at night.¹ Property value experts agree upon the criteria that typically correlate with decreases in property value increased noise, odor, and traffic—none of which result from having a solar park as a neighbor. Solar parks are very quiet facilities that do not emit odor or pollution, and once construction is complete, they have minimal impact on traffic in the area.⁴

What helps improve property values – quality schools, roads, and local services – are further strengthened by projects' contributions into the local tax base, funding those very services.

Visual appearance also plays a role. This is one area where solar parks could have an impact, depending on neighbors' preferences, as we are visually changing the landscape. However, there are many tools to mitigate visual impact, which typically include setbacks and screening. Northern Waters Solar Park is proposed in a rural area with minimal residences. New trees will be planted to serve as a vegetative screen in between homes and the solar park facilities.



Solar panels are designed to capture light,

not reflect it. Most solar panels have antireflective coatings and are less reflective than water or windows. Any reflected light would be wasted potential energy!²



The ground beneath and around EDPR solar projects is maintained with a vegetative ground cover suitable to the local environment, which helps mitigate the possibility of heat increases.³ Any heat increases that do occur are very small and dissipate completely as you leave the solar park's immediate area.

¹ American Clean Power Association. "Solar as a Neighbor: Living Near a Solar Project." July 2024.

² National Renewable Energy Laboratory. Research and Analysis Demonstrate the Lack of Impacts of Glare from Photovoltaic Modules. July 2018.
 ³ V. Fthenakis and Y. Yu. IEEE 39th Photovoltaic Specialists Conference. "Analysis of the potential for a heat island effect in large solar farms." 2013.
 ⁴ Gaur, V. and C. Lang. (2020). Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island. Submitted to University of Rhode Island Cooperative Extension. September 29, 2020.

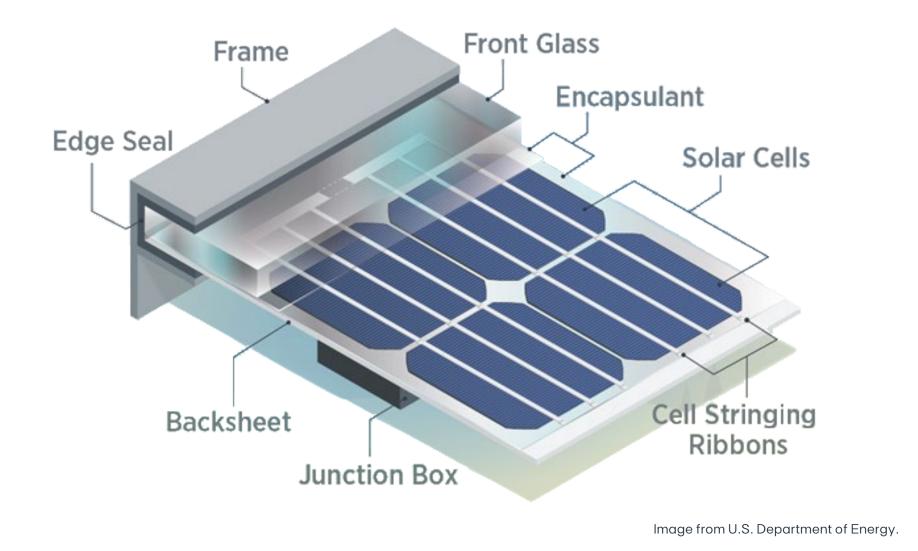
The University of Rhode Island study's conclusion that there may be an impact to non-rural communities is surmised is that "land is abundant in rural areas, so the development of some land into solar does little to impact scarcity, whereas in non-rural areas it makes a noticeable impact. "Capturing sunlight, quietly producing electricity and shade, and requiring minimal maintenance while being safe and sustainable— there is no question as to why solar power has become the fastest-growing electricity source in history."

-Maurizio Dikdan, EDP Renewables Solar PV Technician Engineer

Solar Panel Contents

Photovoltaic cells PANEL COMPOSITION

Modern commercial solar panels do not contain sufficient hazardous materials to pose a danger to the environment and human



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health when in operation or at their disposal.

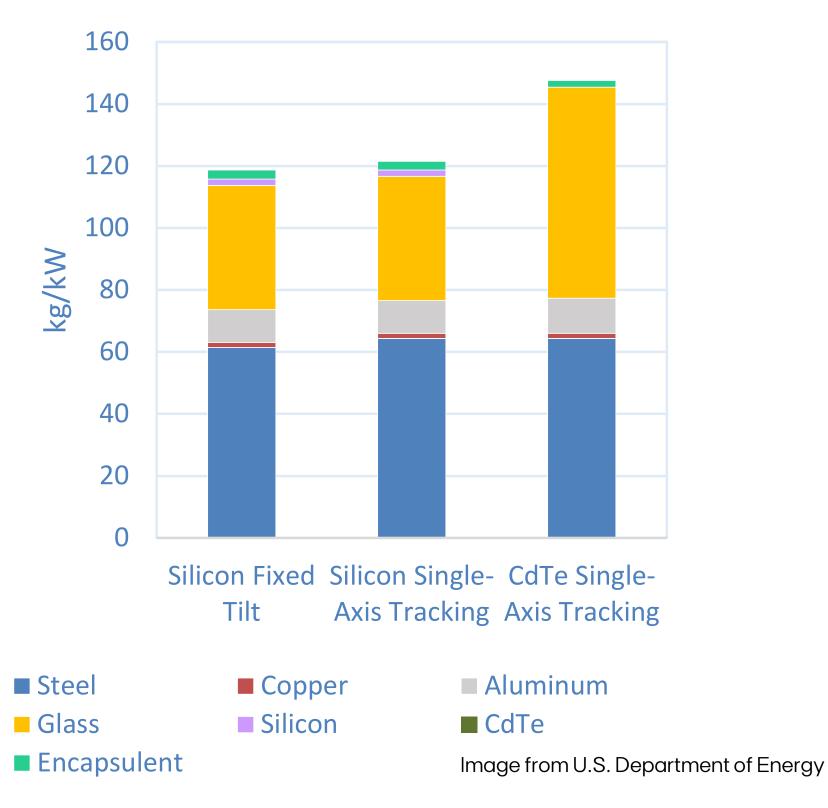
Some panels, most commonly the panels manufactured in America, are made from cadmium telluride (CdTe), while other panels may be made from crystalline silicon. Both technologies are equally safe and thoroughly tested.

By mass, 90% of a solar panel is made up of glass and aluminum.

& Durability

The thin layer of solar cells is sealed on both sides and covered with glass and an aluminum frame. Solar panels are designed and manufactured to withstand extreme weather conditions and events. **Panels use a fully sealed technology that blocks trace metals from entering surrounding soils, even if cracked, similar to phone screens.** Solar panels do not contain any liquid, so nothing is able to leak out.¹

20 MW PV Plant Component Materials by Weight (kg/kW)



PANEL MANUFACTURING

Northern Waters Solar has not yet finalized a panel manufacturer. Regardless of which panel type is chosen, the technology will be thoroughly tested for safety and efficiency. EDPR is prioritizing American-made panels whenever possible, and never uses Chinese panels.

WHAT ABOUT TOXICITY?

EDPR requires Toxicity Characteristic Leaching Procedure (TCLP) reports from all panel manufacturers it collaborates with. This testing procedure simulates the conditions a solar panel would face in a landfill over an extended period, to ensure hazardous levels of substances do not leach from the panel. Northern Waters will source panels that pass TCLP testing.

Protecting our planet and contributing to its regeneration is one of EDPR's environmental, social, and corporate governance commitments. In order to achieve this ambition, EDPR's Close the Loop program encourages recycling of solar panels to divert from landfill disposal to align with EDPR's circularity goals.

¹ American Clean Power Association. "Solar Panels are Safe for Your Community." July 2024



Solar Park FAQs



WHAT WILL THE SOLAR PARK LOOK LIKE?

Solar parks typically look different than what was there before, which can take some getting used to. Since solar panels are mounted on top of metal piles driven into the ground, the vast majority of the ground within a solar park is covered in well-maintained vegetation, meaning plenty of green space. Northern Waters Solar will also plant additional vegetative screening comprised of evergreen trees in certain locations near homes and other areas with potential viewshed impacts.



ARE SOLAR PARKS SAFE NEIGHBORS?

Solar parks are very safe neighbors. PV panels are made of safe, well-tested materials thoroughly researched and vetted by national labs, American research universities, and industry scientists. The panels are fully sealed, do not contain any liquids, and cannot leak. We work with local emergency service teams before a project becomes operational to ensure there is a plan in place should any unforeseen emergencies arise on-site.

People are surrounded by electronics, electromagnetic frequencies (EMF), and radio frequencies every day. Residents outside of the fenced perimeter of a solar facility, including sensitive populations like those with pacemakers, are not exposed to significant EMF from the solar facility as the EMF levels outside the fence are less than 1/1000th of the level at which manufacturers test these medical devices for EMF interface.¹ Therefore, there is no negative health impact from the EMF produced in a solar park.



WHERE DOES THE POWER GO?

The power grid isn't like a pipeline that carries electrons from point A to point B — it's more like a bathtub, where water can be added and taken out, but it's impossible to know which exact water molecules those are. **The power itself will connect into the local grid, boosting the immediate area's electricity supply. The electrons will move along the path of least resistance to where they're needed first, typically closer to where they're generated, whether that be immediately in Cheboygan County, or to various parts of Michigan and beyond.**



Yes, panels are recyclable and EDPR has committed to keeping panels out of the landfill through robust recycling initiatives. Close The Loop is EDPR's circular economy program, which aids in minimizing the use of natural resources, optimizing and efficiently managing products and services, maximizing the recovery of waste, and promoting a circular economy among our customers. EDPR is collaborating across the solar, wind, and energy storage sectors with over 19 recycling partners throughout North America to ensure solar panels, products, and components are managed responsibly both during and at the end of their useful life.

Protecting our planet and contributing to its regeneration is one of EDPR's environmental, social, and corporate governance commitments. In order to achieve this ambition, EDPR aims for 85% waste recovery along the project value chain (including construction, operations, and dismantling of solar and wind projects) by 2026.

IS THIS PROJECT FUNDED BY THE GOVERNMENT?

The costs of the equipment and construction are funded from EDP's own balance sheets. We do receive some level of government support in the form of, as do all forms of energy generation. The energy industry—not just renewables is incentivized by the U.S. and state governments because energy independence and energy security are so important for the country. **The tax incentives we receive for building projects are only available once the project is producing power, working to drive down the overall cost of electricity, benfiting everyone.**

¹Tommy Cleveland, NC Clean Energy Technology Center & NC State University. "Health and Safety Impacts of Solar Photovoltaics."

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A solar farm provides you peace of mind with a stable income. After the solar farm checks started coming in, that income allowed me to purchase more land and start a tree nursery.

It really helps you be able to expand your business and do more."

Landowner & Farmer | Orangeburg, SC Walt Pooser

These quotes are from an interview with Walt Pooser on November 28, 2018. They have been edited for clarity.

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I like that it's clean, renewable energy. We have to live with this environment, so we have to keep it up and keep it in good shape.

In the long run, I'm sure this will help the environmental and energy situations of my grandkids."

Landowner & Farmer | Hampton, SC Freddie Mixon

These quotes are from an interview with Freddie Mixon on November 27, 2018. They have been edited for clarity.

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In terms of what you can do with your land, I think clean power is a very attractive option.

It's really neat to put something like food on

the table for the American people, as well as power in the homes of people in these local communities."

Landowner & Farmer | Blue Harvest Solar, OH Joe Recker Jr.





otes are

view with Joe Recker Jr. n March 14th, 2023. They have been edited for clarity

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The money that we receive from these projects lets us improve our roads and other infrastructure-the county, the school districts, libraries, emergency services, the hospital, the historical society, and more.

This is money we're not getting from anywhere else. It's had a great impact on the whole community."

Township Trustee | Harrison Township, OH Bob Young



These quotes are from an interview with Bob Young in 2020. They have been edited for clarity

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