

PUBLIC MEETING FOR PROPOSED COMMUNITY SOLAR FARMS AT OAK HILL FARMS

Eden Renewables bringing low cost, natural power to your community www.edenrenewables.com









HARRY LOPES

CHIEF EXECUTIVE OFFICER

With a background in farming and finance, Harry has been developing renewable energy projects in wind and solar since 2011. During his time off, he likes to explore the surrounding nature trails with his electric bike.

GIOVANNI MARUCA

CHIEF DEVELOPMENT OFFICER

Giovanni has over seven years of experience managing solar PV developments, including one on his farm in Castleton-on-Hudson. Recently, he has made the Capital Region his home with his family and a flock of wild peacocks.

GILLIAN BLACK

PROJECT DEVELOPMENT MANAGER

Gillian is a NABCEP Certified PV Installation and Technical Sales Professional having designed and/or installed over 300 residential, commercial and municipal solar PV systems all over the Northeast. He lives in Saratoga Springs with his family and two dogs and enjoys a day out in Saratoga.

JONALIZA D. MISA

COMMUNITY AFFAIRS MANAGER

Jonaliza's experience in community and public affairs expands for almost a decade, previously working in the New York State Senate before entering the renewable energy industry. Currently, she lives in Guilderland and can be frequently seen at the local hot yoga studio.

ED PARKER

COMMUNITY OUTREACH MANAGER

Ed has been assisting business and residential customers go solar for several years, with extensive experience in both on-site solutions and community solar. He lives in Slingerlands where he enjoys fishing, hiking and spending time with his family.

STEPHANIE PULIAFICO

PROJECT ADMINISTRATOR

Stephanie has many years of experience as an administrator and project coordinator in the clean renewable energy sector. Off work hours, she spends time planning trips to Disney World with her son and volunteers as a treasurer on the youth lacrosse board in her hometown, Glenville.

PROPOSED COMMUNITY SOLAR FARMS AT OAK HILL FARMS





KEY FACTS

- The site is expected to have a capacity of approximately two 7.5 MWp, which will generate enough green electricity to power approximately 2,450 homes, the equivalent to planting 20,000 trees per year. (Source: US Environmental Protection Agency)
- The proposed development complies fully with the Duanesburg Town Code and Historical Ordinances.
- The installation comprises solar arrays supported at intervals by posts driven directly into the ground, without the use of concrete. The panels are set on an axis to track the movement of the sun and maximize solar power production. The arrays will not exceed 10 feet in height.
- The site will generate renewable electricity for 30 years, after which the solar panels can be completely dismantled and removed with minimal impact on the land.
- There is a nearby point of interconnection to National Grid.
- The site benefits from good screening due to local topography and existing trees.
- The site is average agricultural land with good opportunities for creating pollinator-friendly wildflower meadows and agricultural usage with sheep grazing.
- The site is safely accessible via Duanesburg Road.



OAK HILL SOLAR FARMS NEW YORK



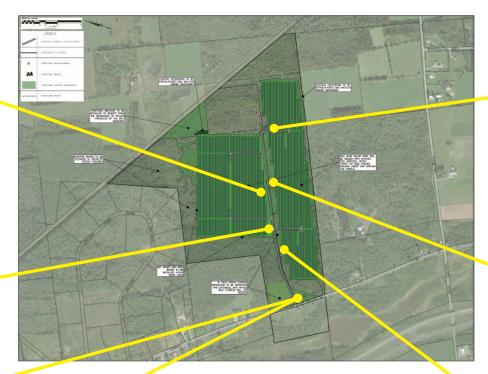
PROPOSED COMMUNITY SOLAR FARMS AT OAK HILL FARMS



THE SITE IS NATURALLY WELL-SCREENED













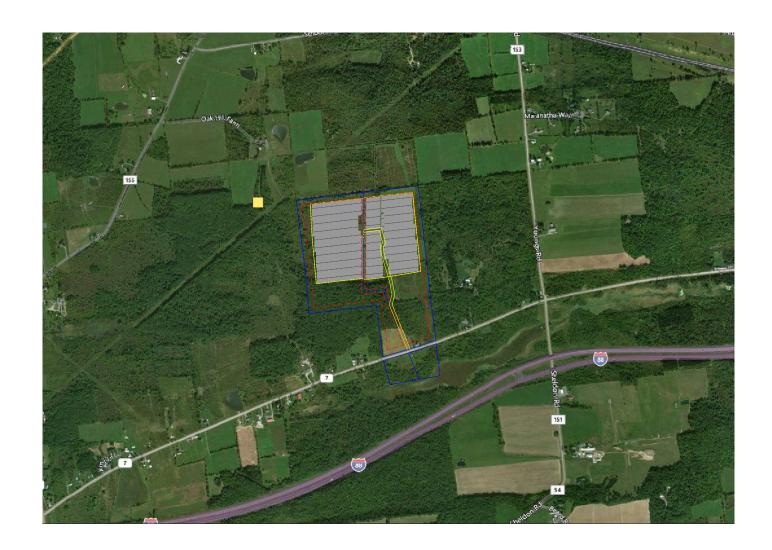


PROPOSED COMMUNITY SOLAR FARMS AT OAK HILL FARM



DESIGN

- The land will continue in agricultural use, with sheep grazing between the panels.
- Panels cover 30% of the total site area, but only 5% is disturbed by the actual footprint.
- The site is bounded on all sides by existing woodland, bushes and hedges, which screens it effectively. New hedges will be planted to further enhance the screening.
- The land is average agricultural value and is currently farmed with a mix of crops and hay. We are developing a Landscape and Ecological Management Plan, which will substantially improve the ecology over the lifetime of the park.
- The existing field boundary woodland and grassland habitats will be retained and protected. They will be complemented by sowing an appropriate native grass and wildflower mix around the panels improving the biodiversity potential of the land and creating a pollinatorfriendly habitat for birds, bees and butterflies.





WHAT IS COMMUNITY SOLAR?

COMMUNITY SOLAR

Well-designed and discreet, Eden Renewables' community solar farm located on a site of marginal farmland near you, feeding clean power into the grid.







SAVE MONEY

Eden Renewables gives you a discount of 10% each month on your energy bill compared to utility rates.





LOCAL & ENVIRONMENTAL IMPACT

Participation creates the following benefits:

- Supporting local agriculture with pollinator-friendly and sheep grazing habitats
- Supporting the local economy through increased local taxes from the solar farm
- · Lowering carbon emissions and pollution
- Providing a community benefit fund for local, social and environmental causes
- Educational program with school visits to show children how clean power is generated



YOUR SHARE

Based on your annual energy consumption, you subscribe to a portion of the community solar farm's production.

\$ CREDITS

You receive \$ credits on your normal utility bill for the electricity your solar subscription provides.

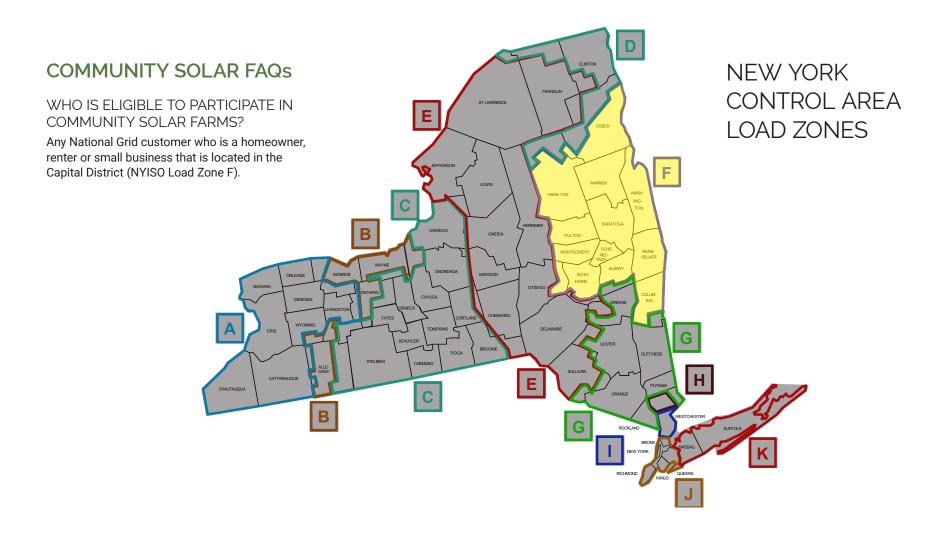




SIMPLE TO USE

You use electricity from the grid like normal, nothing to install or change and no need to contact National Grid.









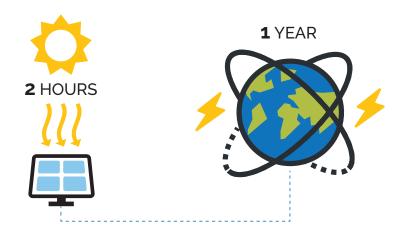


COMMUNITY BENEFITS

- The opportunity for local people to subscribe and reduce their energy bills. While this service will be available to all residents in the Capital Region, local residents will be offered a priority subscription.
- A community benefit fund will be established for the lifetime of the solar farm. This is likely to amount to several thousand dollars per year. We will work with Duanesburg Town Council to determine how this fund could bring economic, social and environmental benefits to the area.
- Additional funding will be allocated for local schools to teach students about science, technology and energy generation.
- The benefits of renewable energy developments include decreasing reliance on fossil fuels, reducing greenhouse gas emissions, improved air quality, providing an affordable source of home-grown energy, contributing to economic stability and energy security.
- Solar Photovoltaics are a reliable and proven technology producing renewable electricity safely, cleanly and with no noise or emissions. In NY, solar power has a key role to play in meeting the State's leading clean energy targets.
- The presence of solar farms at Oak Hill Farms will help make the community a greener, more sustainable place to live and work. It will foster a sense of local environmental stewardship.

"Try to leave the Earth a better place than when you arrived."
-Sidney Shelton









The average household emits roughly 20 metric tons of carbon pollution each year. By installing a solar power system, a typical two-person household reduces its carbon emissions by three to four tons annually.

-The U.S. Environmental Protection Agency

ENVIRONMENTAL BENEFITS OF SOLAR ENERGY

- Solar energy is free and abundant. If we could capture all of the sun's rays for just two hours, we could power the entire world for one year.
- Solar energy is a clean, affordable and sustainable way to generate electricity. Switching to solar energy can help reduce your utility bills—but it has real environmental impact as well.
- Solar energy reduces air pollution. The United States relies mainly on coal and natural gas to generate electricity. Extracting and using these fossil fuels is expensive and can be harmful to the air and water quality. Generating electricity with solar panels produces no pollutants to damage the air we breathe and the water we drink.
- Solar energy is renewable. The sun is the world's most abundant energy source, producing 10,000 times the world's total combined energy use, and it can be used over and over again. In contrast, fossil fuels are nonrenewable and there will come a time when the world will run out, or the cost of finding and extracting these sources will become too expensive.
- Solar energy is pollinator-friendly. Bees and butterflies are responsible for pollinating a significant amount of US crops and fruit production but have been in rapid decline for years. In response, farmers spend millions of dollars to transport bees across the continent to pollinate their crops, which is not a sustainable solution. Creating a source of high pollen and nectar in the form of wildflower meadows under the panels allows a strong local pollinator population to thrive for the lifetime of the solar farm.



ECONOMIC & SOCIAL BENEFITS

SUPPORTING LOCAL FARMERS

The installation of solar panels on agricultural land provides farmers with a fixed rental income on a portion of their land. This protects farmers from the volatile nature of the agricultural industry. This is not just beneficial for local farmers, but also good for the community as farming can be maintained and the landscape retains its agricultural character.

CREATE JOBS IN YOUR LOCAL COMMUNITY

Where possible, Eden Renewables will employ local people for construction and for the ongoing maintenance of the land and farms. According to The Solar Foundation, the solar industry added jobs at a rate nearly 12 times faster than the overall US economy in 2015. This growth is expected to continue and, as these jobs tend to be higher paying and cannot be outsourced, they are a significant contributor to the US economy.

FDUCATIONAL OPPORTUNITIES

Local schools can participate in field trips to the solar farms to learn about climate change, renewable energy and NY ecology. The presence of a solar farm within the local area will raise awareness of renewable energy and may spark an increased interest in environmental issues.

PRESERVATION OF THE RURAL WAY OF LIFE

Alongside the production of renewable energy, the site is designed to allow sheep grazing. At the end of the solar farm's life, all hardware can be dismantled, removed and recycled.









SOLAR FARM FAQS

WHAT DOES A SOLAR FARM CONSIST OF?

All solar farms require:

- Sufficient capacity in the local grid network.
- Electrical apparatus on-site including a private substation/transformer and a number of inverters that are evenly distributed throughout the site. The transformers are approximately 10 feet high.
- A clearance gap at least 13 feet will be placed in between each row of solar panels to allow space for maintenance vehicles, sheep grazing and to prevent shading of panels.
- Six-foot high perimeter fencing is required as a security measure and needs to meet standards to ensure adequate insurance coverage can be obtained against theft or damage.

WHAT DOES THE INVERTER DO?

PV solar panels produce high voltage (more than 400v) direct current (DC) electricity. It is the job of the inverter to convert this DC current to 120V 60Hz alternating current (AC), which is the standard voltage used by the appliances in your home.

"Human beings, while capable of the worst, are also capable of rising above themselves, choosing again what is good, and making a new start."

-Pope Francis











COMMUNITY SOLAR FAQS

WHAT IS A COMMUNITY SOLAR FARM?

A community solar farm is a set of solar panels in an open, sunny field that produce energy and is shared by a group of subscribers. Community solar allows a group of people to share the benefits of clean, renewable energy without having solar panels on their rooftops or property.

WHAT ARE THE BENEFITS OF A COMMUNITY SOLAR FARM?

- Guaranteed savings on your electricity bill every month.
- Little up-front cost—other than a small deposit to reserve your space which will be applied to your account. If you change your mind after paying a deposit, we will refund it.
- No panels or equipment will be installed on your home or property, but you can enjoy the same ecological benefits as if solar panels were installed on your home or property.
- Short or long-term agreements—guaranteeing pro-monthly savings.
- Cancel anytime—with 60 days notice—without any further costs or penalties.

IS THIS THE SAME AS BUYING MY ENERGY FROM AN ENERGY SERVICES COMPANY (ESCO)?

An ESCO only replaces the electricity supply charges on your electricity bill, while community solar replaces both delivery and supply charges on your electricity bill.

HOW WILL THE SOLAR ENERGY GET TO MY HOME?

The clean energy generated by the community solar project will be fed into the local power grid operated by National Grid. Some or all of the electricity you already receive from National Grid will now come from locally-produced solar energy, reducing the amount of fossil fuels burned in New York State.

DO I NEED TO LET MY UTILITY KNOW I AM SIGNING UP FOR THIS?

Following the regulations outlined by the New York State Energy Research and Development Authority (NYSERDA) and the New York State Public Service Commission (NYS PSC), Eden Renewables will inform National Grid on your behalf. You don't need to call National Grid or switch your utility account.

HOW AND WHEN CAN I PARTICIPATE?

We will begin offering subscriptions shortly. If you have any questions or would like us to contact you regarding this service, please email us at: oakhillsolar@edenrenewables.com.

"We need to continue to invest in good solar exploration and reliable energy sources."

- NY State Senator George Amedore





SOLAR FARM FAQS

WHAT ABOUT GLARE FROM THE SOLAR PANELS?

Very little energy is lost through reflection. Any glare is minimized through using translucent coating materials to improve light transmittance through glass. In fact, grass produces more glare than a PV array.

IS THERE ANY POLLUTION OR NUISANCE ASSOCIATED WITH SOLAR FARMS?

Photovoltaic panels convert sunlight into electricity with no moving parts, no vibration and no pollution. The only noise is from inverters which convert the DC power to AC, and they are only audible from a few feet away.

DO THE PANELS REQUIRE MAINTENANCE?

The key maintenance is regular check-up to the electrical equipment and management of the land. Encouraging wildflower meadows in spring and summer and sheep grazing in winter is considered the most cost-effective method of land management for most solar farms.

HOW IS THE LAND MANAGED WHILE THE SOLAR FARM IS IN OPERATION?

A specialist land management team will be employed to maintain the site throughout the operation of the solar farm. The team will be responsible for implementing the landscape strategy that includes the planting of trees, hedges, a wildflower meadow and sheep grazing.

WHAT ABOUT FLOOD RISK?

Rain water runoff from the site will not increase from the presence of the panel arrays and it will not displace any floodwater. A wetlands and stormwater assessment will be commissioned and form part of any mitigation that might be required.

IS MORE ENERGY USED TO MAKE THE PANELS THAN THE PANELS PRODUCE?

The energy payback periods for solar panels have reduced significantly over time and most solar farms neutralize their energy consumption within 3 years.

CAN I PROVIDE MY COMMENTS DIRECTLY TO THE COUNCIL?

Yes, the Town of Duanesburg will carry out a public hearing as part of the permitting process when you will have the opportunity to make formal comments.