

Meet the Presenters



Drazen Gasic EDF Renewables (EDFR) Senior Project Developer



renewables



Jim Muscato Young & Sommer (Y/S) Legal Permitting





Caitlin Graff Environmental Design & Research (EDR) Environment & Permitting





Paul Rogers Energy Safety Response Group (ESRG) Energy Storage





Dave Manning LaBella Associates (LaBella) Permitting Engineer





Grid-Scale Power



Bigger Projects. Bigger Impact.

Providing origination, development, transaction, and construction services for large-scale wind (offshore and onshore), solar power generation and storage projects across North America.

Our team of leaders solve energy challenges for businesses and communities no matter the size or complexity having developed wind, solar and storage projects with some of the world's top corporates and utilities.

35+ years On the forefront of the burgeoning wind industry in California as a service provider beginning in 1985.

15.6 GW

Of developed grid-scale solar, wind and storage projects across North America

\$24.6B

Paid to vendors, including lease payments made to landowners, since 2010.

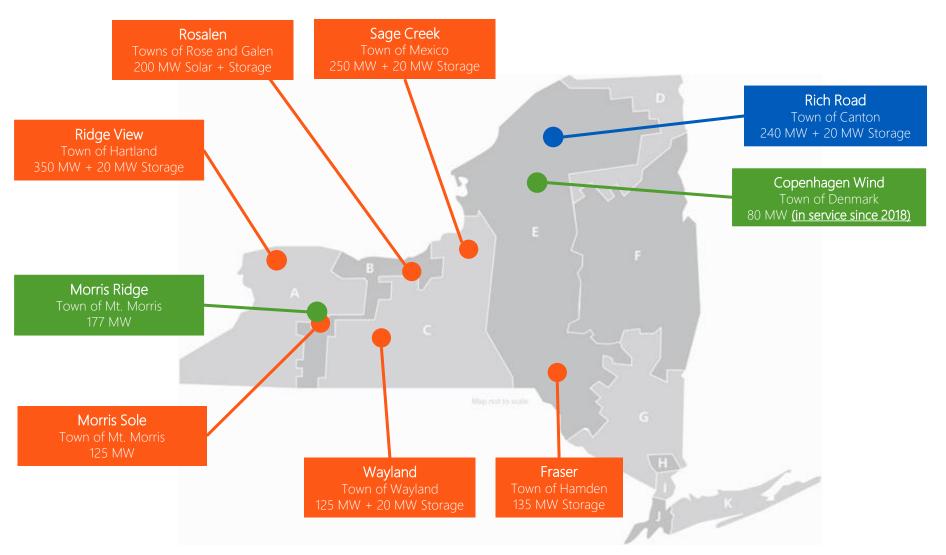
78,000

Number of potential jobs created over the project lifetime of our development portfolio.

Based on an employment factor of 5 jobs per MW, IRENA Annual Review 2022

EDF power solution: NYS Projects

- In Operation
- **Under Construction**
- Permitted
- In Development





Project Overview





Project Benefits

200MW solar + energy storage project sited on 1,900 acres of land in the Towns of Rose and Galen, Wayne County, NY.



More than \$1,000,000 in annual direct payments to the towns of Rose and Galen, Wayne County, and school districts. PILOT and Host Community Agreements to be negotiated.



More than 200 jobs at the peak of construction and 2 full-time, highly skilled, high paying positions during the 30+ year operating life.



Opportunities possible for local businesses including in the hospitality, material supply, and construction services sectors during construction, operation, maintenance, and decommissioning phases.



The Project will safely generate enough clean, renewable electricity to power 52,000 New York households.



EDF Renewables worked with local emergency services in Mount Morris to provide ATV and Fly Car for off-road rescue for Morris Ridge Solar and community needs – would like to do something similar here.



years, more than \$18M dollars would be invested in the community in the form of **PILOT / Host Community Agreement** payments, special district taxes, change in use taxes

New Revenues for the Community

Long-Term Stable Tax Agreements

- Split between Towns, County and Schools; Increase in local revenues with no additional municipal costs.
- Based on other projects in Upstate NY and the market for PILOT agreements, we estimate approximately **\$1.0 million in year one** and increasing over time.
- Can assist with maintaining or improving current infrastructure and services without increasing taxes.

Increased Tax Revenues on Land

- As agricultural exemption is removed, a five-year rollback tax payment equal to the amount of the exemption with interest is paid – estimated at more than \$350,000.
- Land within the array would be assessed at full value (without the agricultural exemption), resulting in a boost to the tax base estimated to be more than \$58,000/year.

Special District Taxes

- Large contributions by the project to special district taxes, ex: Rose Fire District and Galen Fire District.
- Special district taxes estimated between \$26,000-\$38,000 per year, potentially putting downward pressure on future tax increases.

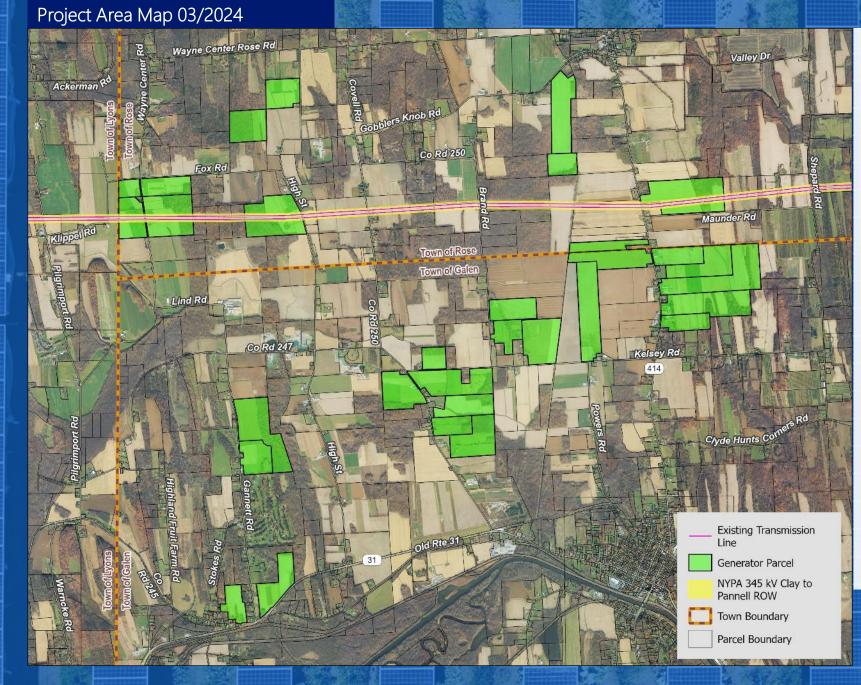
Share the Sun Fund

- \$20,000 per year for the life of the project.
- Run by members of the community with the help of the local project team.
- Donations chosen by local community representatives.
- Distribute funds to local civic groups, nonprofits, projects, or other beneficial community programs in the Towns of Rose and Galen.

Host Community Electricity Benefit

- \$100,000 per year for the initial 10 years of the project.
- This payment is split between all residential electricity customers in our host towns and is a credit on electricity bills.





ROSALEN solar + storage project

Up to 200 MW (~1,900 acres) 35% in Town of Rose 65% in Town of Galen

Construction as early as 2028 COD as early as 2030

ORES Article VIII
Siting Permit Application
Quarter 2 2026

Town of Rose and Galen Wayne County



Facility Design

- Design the facility to avoid and/or minimize environmental impacts
 - Wetlands
 - Wildlife
 - Stormwater
 - Road use
- Efficient panel placement to maximize land use
- NYS Mandated Setbacks

Setback Type	Facility Setback
Non-participating residential property lines	100 feet
Centerline of Public Roads	50 feet
Non-participating property lines (non-residential)	50 feet
Non-participating occupied residences	250 feet

Modules: Crystalline silicon solar panels, around 377,000 panels

Single Axis Trackers: Panels are mounted on a single-axis tracker racking system. The system sits on driven steel piles. Panels track the sun from east in the morning to west in the evening. In their tallest configuration, 9-10 feet tall

Inverters & Transformers: About fifty-five (55) inverter/transformer units convert DC electricity from solar modules to AC electricity. Inverters positioned on the interior of the array and have a footprint of 20-ft x 8-ft and 9-ft tall

Collector Line: Underground cable buried 36-in to 48-in below ground. Connects inverters back to the substation. Deeper burial and specialized methods to cross roads and/or wetlands

Substation: Combines all collector lines and increases voltage to grid-level; connects to existing transmission lines. Located as far as practical from homes to eliminate sound and visual impact

Driveways: Typically, a 15-ft-wide gravel road constructed to support an 80,000pound fire truck or delivery truck. Turnarounds at key locations

Fencing: 7' tall fixed wire knot agricultural style fencing with either steel or wood poles. 25' wide gates with knox box for fire dept access. Wire spacing 4" x 4". Substation will have a traditional chain link fence.

Energy Storage: Storage containers sized approximately 50' x 10' x 10' and located next to the substation for an overall footprint up to 3 acres

Operations & Maintenance Building: Office & storage building, approximately 4,000 sq ft, with parking

Project Timeline



2019-2024

2025

2026

2027

2028

2030







- Land & Easement Acquisition
- Environmental studies
- Public meetings, Virtual and In person
- Interconnect Study

- **Geotechnical Study**
- Land/Easement Acquisition
- Final environmental field studies
- **Boundary Surveys**
- Fall Public Project Meeting
- **Town Consultation** Meetings
- Fire Marshall Meeting
- Design & engineering for permit

- Pre-application public meetings
- O2 2026 File Permit **Application**
- Intervenor funding
- Draft permit issued
- Public comment period
- Submission of issue statements
- **Municipal Statements** of Compliance
- Application deemed complete Q4 2026

- Final Siting Permit Q4 2027
- Construction design
- Agreements:
 - **PILOT**
 - RUA
 - HCA
- Start compliance filings

- Preconstruction meeting
- Receive Notice to Proceed (NTP)
- Construction (2-years)

- Interconnection
- Commercial operation (COD)

Public engagement continues throughout the project lifecycle



Morris Ridge - Town Tax Example (177 MW)

• Below are the projected annual contributions based on negotiated PILOT, Host Community Agreement and Taxes for the Town of Mount Morris – for the 177 MW Morris Ridge Solar project

	Pre-Solar \$/acre	With Solar \$/acre	Source
A) Property Taxes county, town, school)	\$23 (\$3.47)	\$114 (\$17)	Mount Morris Tax rates agricultural assessment program
B) Host Community Agreement (100% goes to Town)	\$0	\$250 (\$250)	Morris Ridge Host Community Agreement
C) PILOT Agreement (split between town, county, school districts according to property tax rates as in A above)	\$0	\$358 (\$54)	Morris Ridge PILOT Agreement
D) Total	\$23 (\$3.47)	\$723 (\$321)	

- Numbers are the total payment by project and in <u>brackets are the share to the Town of Mount Morris</u>
- With solar, the town receives over 90x more revenues per acre.



Morris Ridge Case Study (177 MW Solar)

Below is the annual contributions based on negotiated PILOT, Host Community Agreement and Taxes

Year	Mount Morris	Livingston County	Mount Morris CSD	Keshequa CSD	Mount Morris Fire District	Total
1	\$367,000	\$214,000	\$398,000	\$167,000	\$40,000	\$1,186,000
2	\$299,000	\$111,000	\$207,000	\$87,000	\$41,000	\$745,000
3	\$302,000	\$113,000	\$210,000	\$88,000	\$42,000	\$755,000
1-20	\$6,500,000	\$2,600,000	\$4,800,000	\$2,000,000	\$970,000	\$16,800,000

- First-year payments are higher due to rollback taxes (expected \$450,000 in additional taxes due to conversion of farmland)
- After year 3, expect values to rise about 1% annually for the duration of the project, except Fire District Taxes that are assumed to increase by 2% annually.
- Supporting local businesses hospitality, materials (i.e. over \$1 million dollars for sand, gravel, concrete from local supplier), waste management (Southern Tier Rubbish and Recycling), local food delivery saw significant increase
- Host landowners receiving guaranteed long-term revenue to offset fluctuating farm revenues





Community Partnerships and Donations



Galen Historic Society

Donations

- \$5,000 VFW Post 947
- \$5,000 Rose Little Library*
- \$5,000 Clyde Savannah Public Library
- \$5,000 Rose Fire District
- \$5,000 Clyde Fire District
- \$5,000 Rose Historic Society
- \$5,000 Parade of Lights Fireworks
- \$4,500 Rose Emergency Food Pantry
- \$3,000 United Methodist Food Pantry
- \$6,500 Galen Historic Society
- \$4,000 Clyde-Savannah Scholarships
- \$1,000 New York Holstein Association
- \$2,000 North Rose Wolcott Scholarships





Partnerships

- North Rose Wolcott Central School District's Literacy Night
- Annual Trunk or Treat
- Wayne County Fair
- Clyde-Savannah CSD Community Festival

Please contact Drazen Gasic or Haylee Ferington with any community donation or partnership ideas!

<u>Drazen.gasic@edf-re.com</u> <u>Haylee.ferington@edf-re.com</u>

*Pending Donations



EDF's Commitment to Preservation of Agricultural Land

Compliance with NYS Department of Agriculture & Markets Guidelines During Construction

Topsoil

- Topsoil will not be stripped during saturated conditions to avoid damage to ag soils
- Stripped topsoil will be stockpiled on the property from which it was removed and kept separate from subsoils
- All vehicular movements and construction activity outside the fenced arrays will be restricted to areas where topsoil has been removed
- All temporarily disturbed agricultural soils will be restored following construction

Drain Tile

• If drainage tiles outside the fenced solar panel array areas are damaged during the installation of collection lines and roads, these tiles will be repaired as they are damaged.

Environmental & Agricultural Monitors

Designated on-site to oversee the construction, restoration, and follow-up monitoring in agricultural areas

	MSG 1-4 Acres	Percent of Total Participating Parcel Areas	
Rose Project Facility Area	184	4.7%	
Galen Project Facility Area	381	9.9%	
	Prime Farmland & If Drained Acres	Percent of Total Participating Parcel Areas	
Rose Project Facility Area	398	10.3%	
Galen Project Facility Area	749	19.4%	



2025 Planned Study Activities





Wetland Delineations

• Used to identify wetlands and streams within the project site, advise on project design for avoidance and minimization of impacts. Fieldwork is anticipated to continue this summer.

Breeding Bird Surveys

• Studies completed to identify occupied habitat for state-listed threatened or endangered species, advise on project design for avoidance and minimization of potential adverse environmental impacts. Fieldwork to be completed through July.

Historical/Archeological Surveys

• Required as part of State permitting to identify potential archaeological sites within the Facility Area. Study plans are approved and reviewed by NYSHPO. Fieldwork is anticipated in the Fall and Spring after fields are turned.

Geotechnical Investigation

Required to investigate existing soil conditions, groundwater depth, and potential bedrock depth.
 Some similar preliminary investigation was performed in 2022. Fieldwork is anticipated to continue in the spring.

Boundary Survey

• The boundary survey provides us with accurate property line locations for setback compliance. Boundary surveys will be performed on easement parcels as well. Fieldwork is anticipated in the Fall and Spring.



Permitting Process





New York State Permitting Process for Large-Scale Renewable Energy Projects

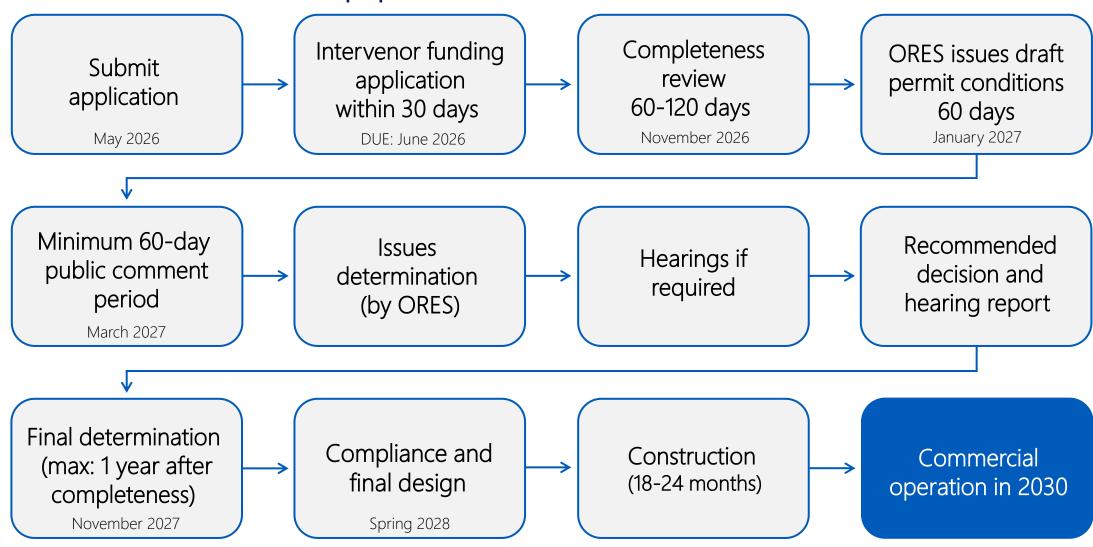


Permitting through Article VIII and the Office of Renewable Energy Siting and Electric Transmission (ORES)

- Standardized conditions to be met by solar project developers
- Full suite of environmental studies, preliminary design engineering, and detailed design and engineering is required
- Early coordination on environmental impacts & reports required
- Adherence to substantive provisions of local zoning laws still required but a waiver for those deemed unreasonably burdensome
- One-year timeline for approval following a completeness determination (Completeness generally occurs roughly 60-120 days following an application)
- Article VIII has limited funding available for pre-application. To address this, EDFR is offering \$20,000 in an escrow account for each town to account for attorney's fees and consultants prior to the Article VIII application submission.
- For Rosalen Solar, a \$200,000 intervenor fund for towns & intervenors to participate in the process and hire experts & attorneys will be available following application submission



Article VIII Application Timeline





Article VIII Application Requirements



The Rosalen Solar Energy Center, LLC. will be submitting a permit application for Article VIII, which includes exhibits on how EDFR plans to avoid, minimize, and mitigate any impacts from the project.

- Exhibit 1: General Information
- Exhibit 2: Overview and Public Involvement
- Exhibit 3: Location of Facilities and Surrounding Land Use
- Exhibit 4: Real Property
- Exhibit 5: Design Drawings*
- Exhibit 6: Public Health, Safety, and Security*
- Exhibit 7: Noise and Vibration*
- Exhibit 8: Visual Impacts*
- Exhibit 9: Cultural Resources
- Exhibit 10: Geology, Seismology, and Soils
- Exhibit 11: Terrestrial Ecology*
- Exhibit 12: NYS Threatened or Endangered Species
- Exhibit 13: Water Resources and Aquatic Ecology*

- Exhibit 14: Wetlands*
- Exhibit 15: Agricultural Resources*
- Exhibit 16: Effects on Transportation
- Exhibit 17: Consistency with Energy Planning Objectives
- Exhibit 18: Socio-economic effects*
- Exhibit 19: Environmental Justice
- Exhibit 20: Effects on Communication
- Exhibit 21: Electric System Effects and Interconnection
- Exhibit 22: Electric and Magnetic Fields
- Exhibit 23: Site Restoration and Decommissioning*
- Exhibit 24: Local Laws and Ordinances
- Exhibit 25: Other Permits and Approvals

^{*} Subject matters which are typically requested for further discussion and communication with the community and will be addressed along with any other topics of community interest through public presentations, town meetings, recorded webinars, or podcasts.

Municipal Compliance Review





Host Community Agreement

• Will include terms for Host Fee Payments, Code Compliance Monitor, Decommissioning, Dispute Resolution, Notices

Fire Code Compliance

Final solar array design will need fire chief review for code compliance and for integration of requested 15-ft road widths and bypass areas.

Decommissioning and Site Restoration Plan

The financial security regarding decommissioning and site restoration activities shall be in the form of letter of credit, or other approved security to be held by the Town hosting facility components.

County and Town Approvals under Road Use Agreement

Will include provisions for use of Town roads by heavy construction equipment, standards for curb cuts, road crossings, and other provisions related to the use of Town roads.



End-of-Life Management

The project is expected to be operational for up to 40 years. At the end of the project's life, EDFR is 100% responsible to decommission, remove, and restore the site.



Decommissioning & Restoration

- Decommissioning is the process of removing equipment (solar panels, inverters, transformers) and improvements (roads and fences) and returning the land to original condition.
- Article VIII and local laws <u>require</u> a security, typically in the form of a letter of credit, to be posted to cover the cost of decommissioning the facility, prior to the start of Construction.
 - The Host Communities will have access to this letter of credit.
 - The amount will be reviewed and adjusted based on inflation every five years.
- Where the land was previously used for agriculture, any topsoil that was removed or disturbed during the construction, operation or decommissioning of the solar facility is replaced, aerated, and the land can be returned to farming.

Reusing and Recycling Solar Panels

- In alignment with federal and state requirements, EDFR uses crystalline silicon solar panels that can be reused and recycled.
 - Metal, glass, wiring components, and silicon cells can be grinded or melted and reclaimed by specialty recycling companies.
 - Glass can be used for fiberglass, glass containers, bead manufacturing, and other uses.



Environmental Compliance





Environmental Studies

Wetlands

 Wetland biologists identify and delineate wetlands and streams based on soil types, vegetation, and hydrology.

Rare / Threatened / Endangered Species

 Biologists conduct surveys during the wintering and breeding seasons to document the presence of raptors and other bird species. Surveys involve visual scans of habitats with the aid of binoculars/scopes and auditory identification following survey protocols. Detailed locations and behaviors are recorded and mapped for raptors and RT&E species observed.

Acoustic Studies

- Noise during construction and operation of a solar project is minimal and mostly associated with electrical equipment, such as inverters and transformers.
- The largest sound emitting equipment is the substation and battery storage facility, which are sited as far from homes and other neighbors as possible.
- Modeling studies will predict the combined sound levels of the background and the facility and demonstrate compliance with laws.

Archaeology & Historic Resources

- Archaeologists conduct surveys for previously undiscovered cultural resources: artifacts, features and archaeological sites.
- Architectural Historians identify potentially significant above-ground historic resources in the project area and evaluate the Project's impact on these resources.

Visual Assessment

- Photographs looking toward the Facility will be taken from important or representative viewpoints based on consultation with municipal planning representatives.
- Studies will map potential locations of Facility visibility and photo simulations will be prepared from a subset of viewpoints to illustrate potential visibility with and without vegetative buffers.

Studies provide information to EDFR and state agencies to help avoid and minimize potential environmental impacts. Mapping of environmental features and reports of the studies will be submitted to ORES for review and approval prior to a final siting permit.

Consultants	Roles
EDR a better environment	EDR leads environmental studies and supports the preparation of the permit application.
LaBella Powered by partnership.	LaBella serves as the civil & electrical engineers responsible for designing the facility.
Young / Sommer ևւ	Young Sommer's attorneys guide EDFR through the permitting process and advise on environmental law.

Consistent with EDF Renewables goal to maximize local spending, approximately 90% of the work in permitting & design is completed by NY residents.



Compliance with NYSDAM Guidelines During Operations

Ag soil restoration will generally involve the following sequence of activities:

- Decompaction of compacted subsoils to a depth of 18 inches
- Disking and removal of stones from decompacted subsoil.
- Spreading of stockpiled topsoil over the decompacted subsoil, and reestablishing preconstruction contours to the extent practicable.
- Disking and removal of stones following the spreading of topsoil.
- Seed selection in agricultural fields will be based on guidance provided by the landowner and NYSDAM personnel, if applicable.
- Regrading all access roads and restoring original surface drainage patterns or other drainage patterns incorporated into the design.

Chemical Controls

- All pesticide application must be by a NYSDEC certified commercial pesticide applicator.
- All pesticides and herbicides must be environmentally friendly and must be USEPA or NYSDEC registered.
- Pesticide and herbicide use will be limited to the substation and POI.

Environmental & Agricultural Monitoring

- Monitoring & remediation practices will continue for two years post restoration.
- General conditions to be monitored include topsoil thickness, relative content of rock and large stones, trench settling, crop production, drainage, and repair of severed fences.
- Impacts will be identified by the EM through on-site monitoring of all agricultural areas impacted by construction and through contact with respective farmland operators and NYSDAM.

Environmental Agency Coordination



EDF Renewables will coordinate with regulatory agencies to ensure that potential environmental impacts are fully considered

Studies provide information to EDF Renewables and coordination agencies to help avoid and minimize potential environmental impacts

EDF Renewables will coordinate with many agencies, including but not limited to:

- Town of Rose and Galen Town Board, Code Enforcement, and Fire Departments
- Wayne County Planning
- Wayne County Public Health
- Wayne County Soil and Water
- Wayne County Emergency Management
- NYS Office of Renewable Energy Siting (ORES)
- NYS Department of Public Service (NYSDPS)
- NYS Department of Environmental Conservation (NYSDEC)
- NYS Department of Agriculture and Markets (NYSDAM)
- State Historic Preservation Office (NYSHPO),
- NYS Department of Transportation (NYSDOT)
- U.S. Army Corps of Engineers



Visual Mitigation

Our Approach to Visual Mitigation

- Early consultation with the community.
- Regular discussions to incorporate feedback where feasible before submitting an application, such as conversations with towns and county soil and conservation districts.
- Focus on sensitive receptors like homes, public areas and historical focal points.
- For roadway screening, focus on the high traffic and/or scenic byways, as it's impractical to screen all views.
- Select species that grow well in the region and are deer resistant to the maximum extent practicable.
- Long-term maintenance and replacement plan to ensure compliance with siting permit conditions throughout the facility life.

Visualizations of Vegetative Screening

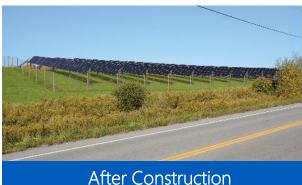
Representative Solar Project 1



Existing Condition



After Construction



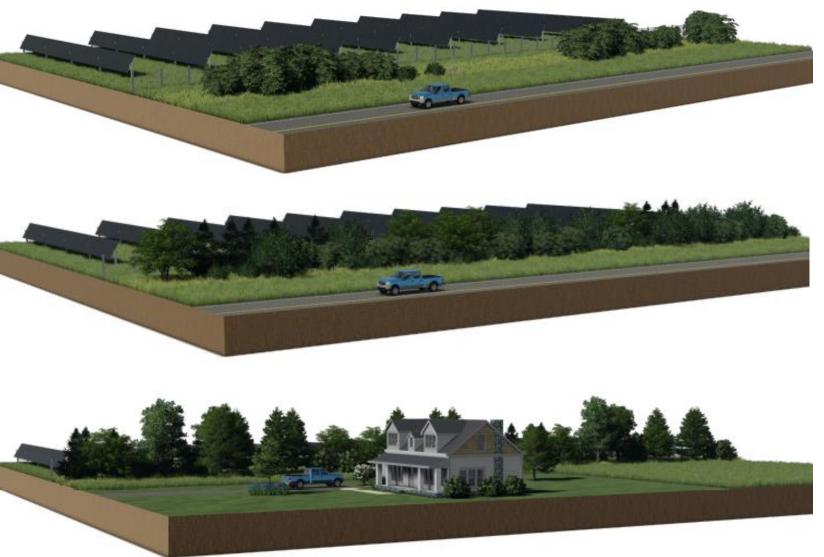


5-7 Years After Construction with Visual Buffers



5-7 Years After Construction with Visual Buffers

Visual Mitigation



Module 1: Low Profile/Habitat Enhancement

Designed to mimic the spacing and pattern of existing roadside and hedgerow vegetation as perceived from a moving vehicle or at a significant distance.

Module 2: Low Height Screening

Designed to blend with the surrounding landscape while remaining low enough in height to prevent excessive shading of the Facility and avoid potential conflicts with existing overhead utility lines.

Module 3: Adjacent Residence/Resource

Designed to provide a relatively dense planting that will result in more complete screening of views toward the Facility Site from adjacent homes or visually sensitive resources.



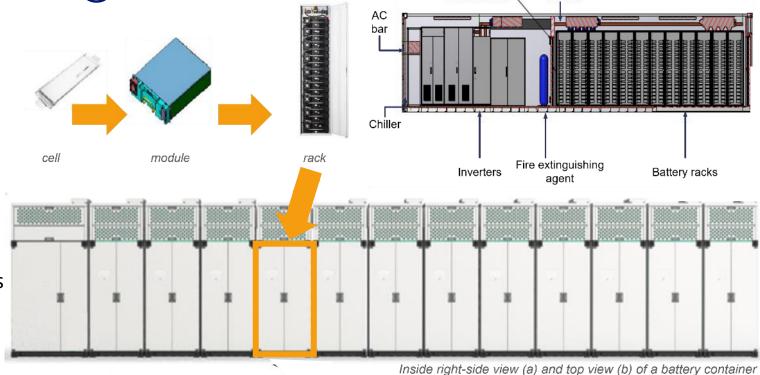
Energy Storage





Energy Storage Design

- Project will include Battery energy storage system (BESS) up to 40 MW located near the substation
- Footprint of the BESS site will be up to three acre of land and located adjacent to the substation and Point of Interconnection.
- The BESS enables energy from solar to be stored and then released when the Grid needs power most.
- Individual lithium-ion modules are packaged together to form battery packs, these packs are aligned in rows in a rack and then stacked in an enclosure.
- Lithium-ion batteries are the same technology that powers cell phones and electric vehicles.



Isolation wall

DC bar



External 3D view of a battery container



(a)

Energy Storage Safety

New York State leads the nation in Fire Code and energy storage system safety, including updated code requiring extra protective measures to enhance the level of protection.

- EDFR will have a local team of full-time operations personnel to monitor and maintain the system to the highest of standards.
- An Emergency Preparedness and Response Plan will be prepared with feedback from the first-responder community.
- Training of local first responders prior to installation and annually thereafter. EDFR can provide new equipment, if required.
- The facility will be monitored 24/7 365 days per year from our NERC registered operations control center in San Diego, California.
- The BESS systems are made of the same type of batteries you find in your mobile telephones, electric vehicles, and portable computers.



Battery Energy Storage Systems (BESS)



Operations Control Center

Agricultural Co-Utilization





Introduction to Agrivoltaics





Key Opportunities for Agrivoltaics in NYS

Least Complex to Implement



Native Vegetation

- Provides a habitat for pollinators that improve agricultural yields.
- Retains more water and topsoil, improving soil health.
- Reduces the ambient air temperature by creating a cooler microclimate, enabling the photovoltaic panels to be more efficient.
- Pollinator and native grassland seed mixes.



Sheep Grazing

- Contracting farmers to provide rotational grazing for vegetation management.
- Episodic grazing produces a higher content of carbon and nitrogen in the soil.
- Lamb meat or wool creates a second revenue stream for the farmer and contributes to the regional economy.



Cattle Grazing

- Cow calf and feeder cattle that peak between 4-500lbs present viable opportunities for grazing operations.
- Two opportunities for cattle grazing:
 - Organic dairy operation
 - Cow-calf beef operation

Most Complex to Implement

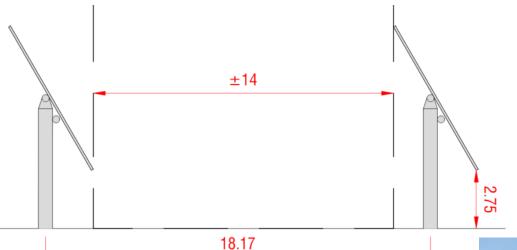


Hay Collection

- It supports continued agricultural use of the land, maintaining its rural character and ensuring it remains viable for farming activities.
- Hay collection serves as a natural vegetation control method, reducing the need for mowing or herbicides and lowering maintenance costs.
- Reduces land-use conflicts.
- Exploring opportunities in hay production that support local dairy operations.



Investigating Hay Application



*Conceptual design dimensions are subject to change





Operation Video





ROSALEN solar + storage project



WE WANT TO HEAR FROM YOU!

We can only have the best project possible for the community if your voices are heard.



STIMULATE LOCAL DEVELOPMENT

200+ jobs during construction and 2 full time high paying jobs during operation

>\$1,000,000 per year new revenues which could be used for lower taxes, school improvements, and upgraded local infrastructure

STABLE source of revenue for host landowners



COMMITMENT TO BIODIVERSITY

Let's talk about integrating complimentary uses for the project, like pollinators, grazers, other ideas (provided they are feasible).

Additional Questions and Resources?





To learn more about the project, visit https://www.rosalensolar.com/



