



 <p>Our Commitment to Ethical Development</p> <p>These principles reflect our promise to our host communities, landowners, and other stakeholders.</p>	<p>EDF Renewables is committed to:</p> <ul style="list-style-type: none"> • Honesty and transparency in all our development activities • Engaging with all stakeholders and remaining open to taking input that will improve projects and mitigate impacts • Being present and available in the community to ensure all voices are heard • Treating landowners, host communities, and stakeholders fairly and equitably.
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Genesee Road Solar Energy Center is a partnership between EDF Renewables and Storke Renewables



30+ Years History of Renewable Industry Experience and Expertise in North America



EDF Renewables North America (EDFR) is a market leading independent power producer and service provider. EDF Renewables' North American portfolio consists of 16 GW of developed projects and 10 GW under service contracts. In New York State, our development pipeline includes over 2,000MW of Utility Scale Solar projects, a 177MW solar project contracted with NYSEDA, and an 80MW operating wind project in Lewis County with National Grid as a customer. Additionally, our Distributed Solutions team has built 47 commercial scale projects in New York State under various NYSEDA programs.



Storke Renewables LLC

Storke Renewables leadership team has 20 years of experience in solar, wind, and storage having developed 500 MWs throughout the USA.

We pride ourselves on our ability to guide landowners and businesses through the process of obtaining renewable opportunities that make sense and have a positive long term impact. In New York state, in addition to the Genesee Road project, we are continuing to grow our 100MW community solar pipeline, envisioning a future in NY where solar is farmed much like other agricultural products of today, providing a resource for families to take advantage of for generations.

The Principles That Guide Us

MISSION STATEMENT

Delivering renewable solutions to lead the transition to a sustainable energy future.

our core VALUES

Safety

Good Sense

Accountability

Transparency

Teamwork

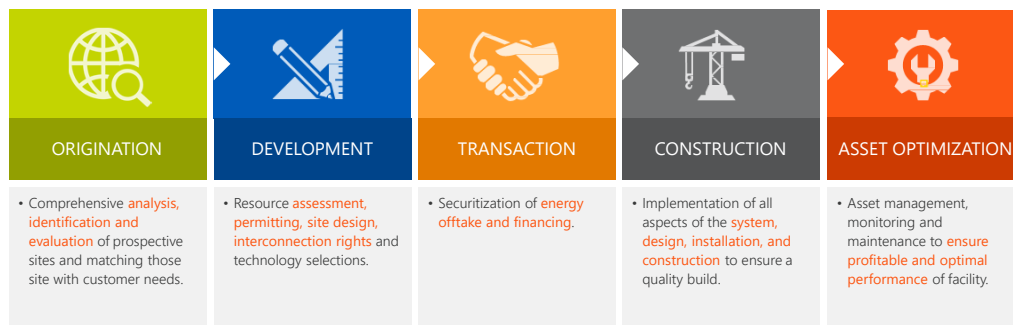
Respect

Passion



Creating Value from Origination to Commercial Operation

EDFR is a **technology agnostic provider** of renewable generation, storage, and management solutions.



Leading The Way in Renewable Energy



Environmental and Economic Impact



Safety Counts





OVERVIEW

Project Name: Genesee Road Solar

Project Owner: EDF Renewables

Project Partner: Storke LLC

Host Municipality: Sardinia & Concord

Renewable Source: Solar

Proposed Capacity: 350 MWac

Proposed Land Use: ~ 2,500 acres

PROPOSED CONNECTION POINT

345 kV transmission line bisecting the area; a new substation will be built to connect the project to the State's electric grid



WHY DID WE CHOOSE THIS LOCATION?

SUPPORTIVE COMMUNITIES:

- Both towns support the development of solar projects

AVAILABLE LANDS:

- Project sited on mostly cleared lands, limiting environmental disturbance, facilitating project permitting
- Farmland is mostly "non-prime" according to NYS

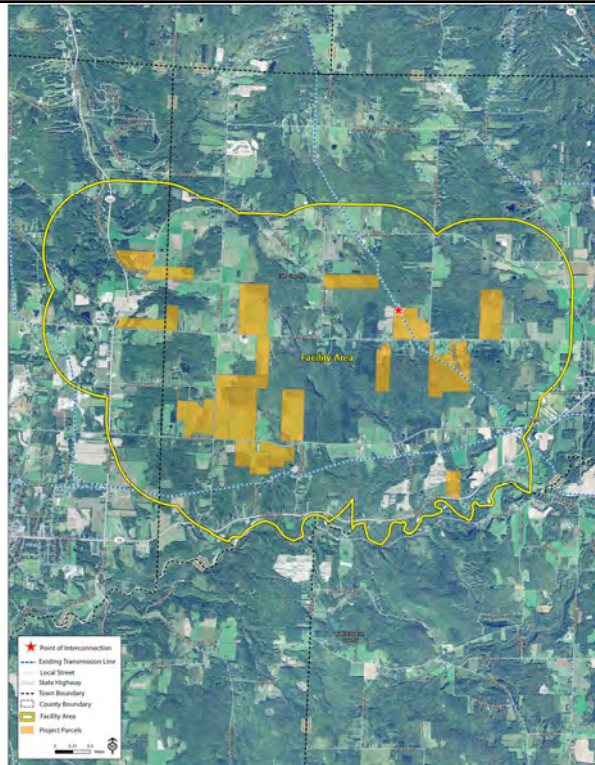
PROXIMITY TO TRANSMISSION LINE:

- Located adjacent to NYSEG "Southwest to Stolle Road" 345kV line with adequate capacity



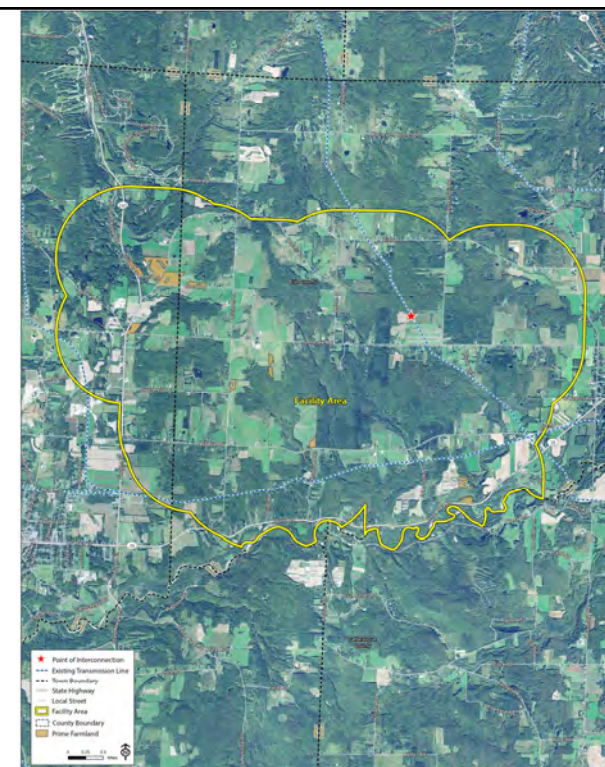
FACILITY AREA

- Targeting ~2,500 acres of privately owned land within the Facility Area in the Towns of Concord and Sardinia
- Orange signifies leased parcels within the Facility Area.
- Not all area within each parcel will be used.
- Anticipate signing another 500-1000 acres
- Easements to be purchased to connect parcels together



PRIME FARMLAND MAP

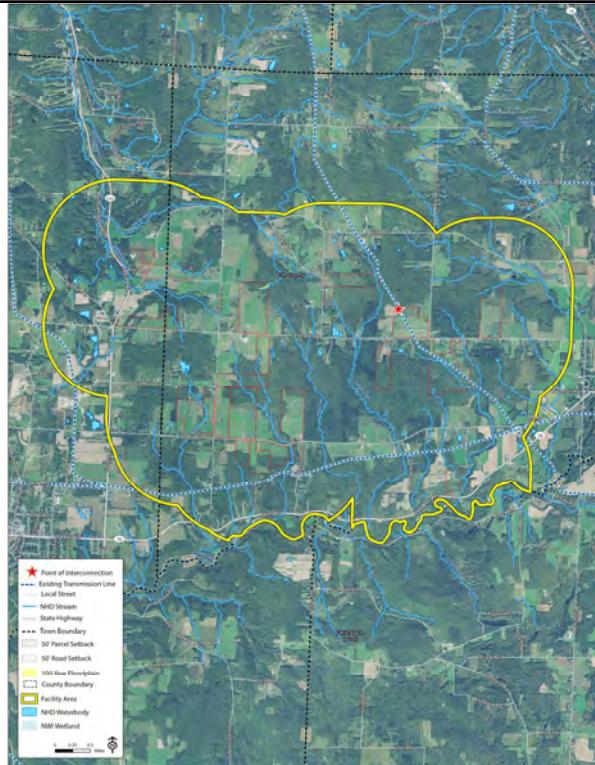
- Soil designations as characterized by U.S. Department of Agriculture and New York State
- Prime farmland shown in brown





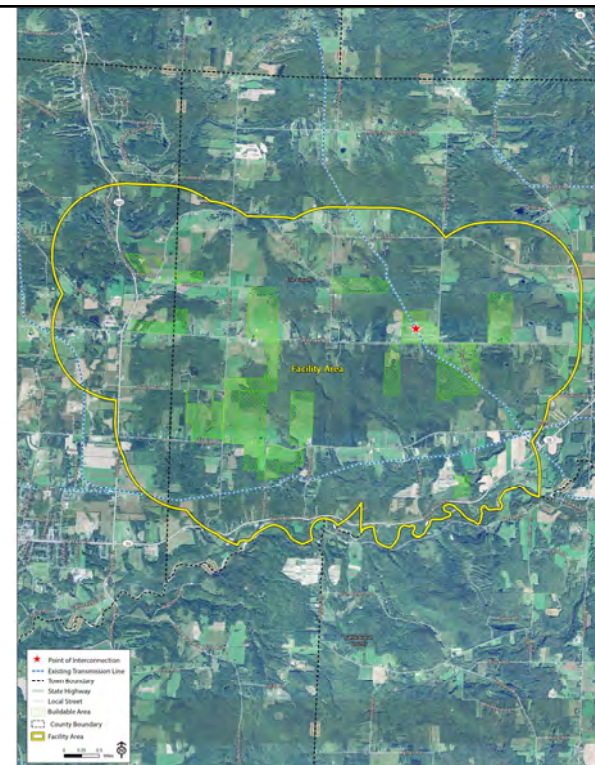
CONSTRAINTS MAP

- Constraints shown are according to publicly available data
- Additional studies to be undertaken throughout the permitting process to confirm presence of features
- Maps will be updated and shared publicly once studies are completed



BUILDABLE AREA MAP

- Indicates areas where solar panels, inverters and transformers can be installed within project land parcels
- Prefer to build within areas with less tree clearing required
- Some landowners have exclusion areas which will be added to future maps
- Constraints identified on previous map and setbacks excluded from buildable area (i.e. 50 ft from external parcel boundaries and roads, 100 ft from wetlands)





ENVIRONMENTAL AGENCY COORDINATION

- EDF Renewables will be coordinating 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:
 - 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
 - Erie County Department of Planning
 - Erie County Department of Public Safety
 - Erie County Soil and Water Conservation District
 - Zoning Boards, Planning Boards, and Fire Departments



ENVIRONMENTAL WINTER STUDIES

EDF Renewables will be conducting environmental studies this winter during conditions when leaves are off trees.

Studies will begin in November 2019.

Wetland Screening

- Field visits to verify wetland size & location were performed in early November. Full delineation will be performed in Spring

ACOUSTIC STUDIES

- Noise during construction and operation of a solar project is minimal compared with other types of power generation and mostly associated with electrical equipment
- Background sound monitoring during winter, or leaf-off conditions for a 24-hour period at several locations
- Modeling studies will predict the combined sound levels of the background and the facility

VISUAL ASSESSMENT

- Consultation with stakeholders on areas of sensitive visibility
- Photographs from these key observation points during leaf-off conditions looking toward the facility
- Studies will map potential visibility and prepare visual simulations to illustrate what the facility will look like when completed and inform the development of landscaping to screen views from roads and neighbors



ENVIRONMENTAL SPRING/SUMMER STUDIES

EDF Renewables will be conducting environmental studies to inform the design process and ways to avoid and minimize impacts, such as tree clearing, and to confirm presence of wildlife and plant species.

Mapping of these features and reports of the studies will be submitted.

Studies will begin in April 2019.

ARCHEOLOGY

- Visual observations by archaeologists to determine presence or absence of cultural material
- Shovel testing in limited areas consists of digging shallow pits and sifting soil through wire mesh to look for cultural material not visible on the surface

WETLANDS

- Field crews of wetland biologists identify and delineate wetlands and streams based on soil types, vegetation, and hydrology and record the dimensions of these features using Global Positioning System (GPS) technology

RARE/THREATENED/ENDANGERED SPECIES

- Field crews of biologists walk through the area and identify protected plant and wildlife and habitat using Graphical Information Systems and GPS technology to map the locations



STORMWATER MANAGEMENT

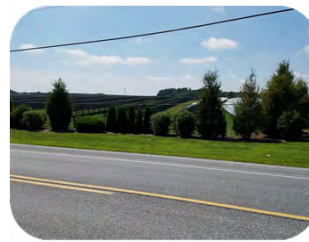
EDF Renewables will implement a Stormwater Pollution Prevention Plan to protect streams and wetlands during construction.

- EDF Renewables will implement best management practices for managing stormwater runoff:
 - Coordinate with state and local agencies
 - Minimize areas of grading, excavating and clearing
 - Silt fencing along borders of construction areas to protect nearby streams and wetlands
 - Keep vehicles and equipment inside the fenced areas
 - Stockpile topsoil away from waterbodies
 - Revegetate disturbed areas in phases, as soon as possible after construction activities are complete
 - Use agreed upon seed mixes for revegetation to reflect native species



SITE DESIGN

Approaches to site design for solar projects include selection of fencing and planting materials intended to screen or soften views of the project from adjacent roadways and properties



SITE DESIGN

Fencing

- Fencing is required for solar facilities for safety and security purposes
- Agricultural style fencing is used for array areas
- Fence styles are typically based on examples within the local community so installed fencing will blend into the existing visual setting



Agricultural Style Wire Knot Fence (Array Areas)



Galvanized Chain Link W/ Barbed Wire (Substation Only)



Typical Access Gate for Array Areas



SITE DESIGN

Evergreen Hedges

- Plantings along fencelines can help integrate a solar facility with the surrounding landscape
- Vegetation may include a screening hedge made up of evergreen trees and shrubs

Native Plantings

- Use of native shrubs and plantings softens the overall visual effect of the facility and provide wildlife benefits
- Plantings can help to better integrate the facility into the surrounding landscape



SITE DESIGN

Pollinator-Friendly Grasses and Wildflowers



- In many agricultural areas, an alternative form of vegetative screening that may be appropriate is tall native grasses and wildflowers along selected roadsides and other fence lines
- Grasses and wildflowers can soften the appearance of the facility and better integrate the facility into the landscape
- Regionally appropriate plantings can also provide habitat for pollinator species when planted around the periphery of the site and/or in locations on site where mowing can be restricted during the summer months
- Sheep are proposed to perform vegetation management; typically around 3,000 for a project of this size





Acoustics & Noise Modeling

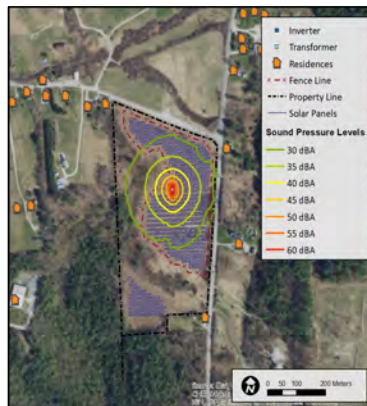
Noise Impact Assessments

EDF Renewables will conduct a noise assessment to assure that the project is compatible with the surrounding area. The assessment includes:

- Background sound level monitoring to assess existing sound levels
- Sound propagation modeling to project future sound levels
- Development of mitigation recommendations to ensure that the project is in compliance with meetings applicable noise limits.
- Compliance with NYS Article 10 noise requirements

EQUIPMENT	SOUND GENERATION
Solar Panels	The panels do not generate any sound
Inverters	These convert DC to AC current and generate some sound during the day
Transformers	These increase the voltage for collection and distribution and generate some sound day and night

Sample Sound Map



Common Sound Sources & Levels

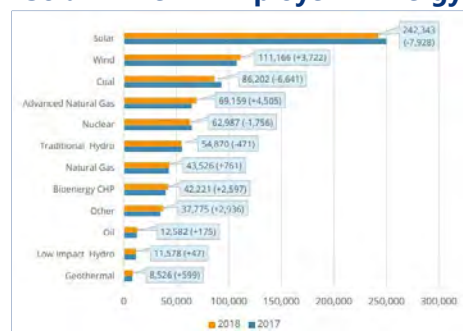


THE OPPORTUNITY OF RENEWABLE ENERGY

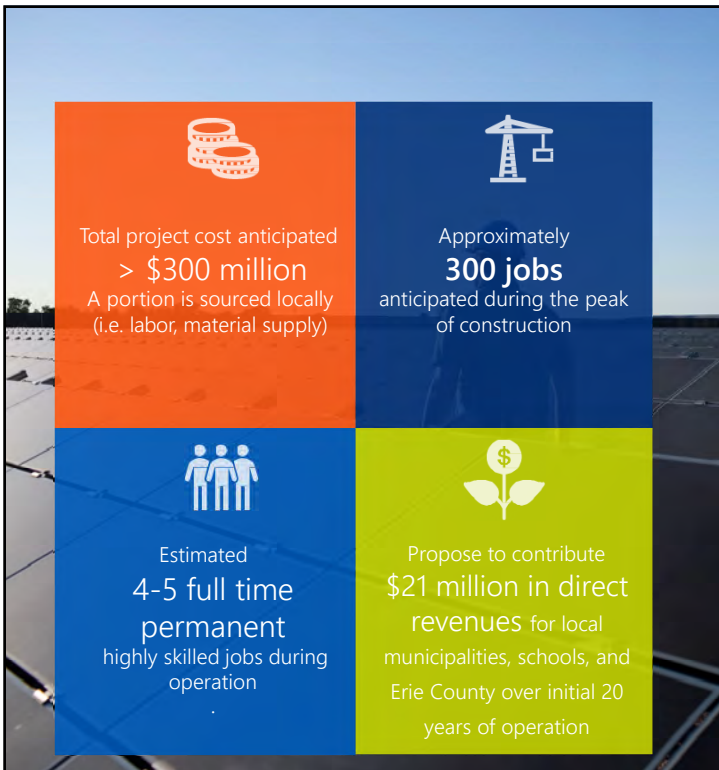
- In 2018, the solar industry generated a **\$17 billion investment** in the American economy.
- Average **annual growth rate of 50%** over the last 10 years
- Generates enough electricity to power more than **12.3 million homes**
- Solar generation offsets more than 73 million metric tons of CO2 emissions each year, equivalent to taking 15.6 million vehicles off the road


*Solar employment grew about **six times faster** than the **overall U.S. economy** from 2013-2018*

Solar – The #1 Employer in Energy




Source: U.S. Energy and Employment Report (USEER) published by the U.S. Department of Energy (DOE)







Total project cost anticipated
> \$300 million
A portion is sourced locally
(i.e. labor, material supply)




Approximately
300 jobs
anticipated during the peak
of construction



Estimated
**4-5 full time
permanent**
highly skilled jobs during
operation



Propose to contribute
**\$21 million in direct
revenues** for local
municipalities, schools, and
Erie County over initial 20
years of operation




LOCAL BENEFITS

DIRECT BENEFITS:

- Surveying, civil engineering, mechanical work, electrical work, road construction, transportation equipment, earthwork activities, maintenance of vehicle fleet, maintenance paths, snow removal and other related services.

INDIRECT BENEFITS:


- Meals and accommodation for construction personnel; products, services and supplies.



Solar energy provides stable revenues for 20+ years
Host landowners enter into lease agreements that provide annual payments for use of the land.


Land will be returned to normal state
At the end of the useful life of the solar facility or the expiration of the lease (whichever comes first), the infrastructure is decommissioned and the land is returned to its pre-existing condition.

Solar facilitates complementary uses
Planting clover or other ground cover can stimulate foraging of bees and butterflies. Some sites in Europe, the United States and Canada have successfully integrated sheep grazing amongst the solar panels.



Solar Helping to Re-Invigorate Pollinators

- Beehives were installed at the EDF Arnprior Solar Project (23.4 MWp) to enhance the biodiversity of the project by producing honey.
- In 2017, more than 350 "Sunny & Honey" jars were produced!



Solar and Sheep

- More than 300 sheep at the EDF Arnprior Solar facility graze the vegetation beneath the panels.
- A win-win for both farmer (food supply for sheep) and solar project operator (vegetation maintenance).



Arnprior Solar Project added a number of biodiversity and environmental features.
They include the integration of monarch butterfly conservation, bees and honey production and sheep grazing.

- 100 pregnant ewes brought to site in mid-May
- About 10 lambs born every day
- By end of June, ~300 sheep on-site
- For the first time, farmer will be able to sell **grass fed, free range lamb**
- Partnership with Arnprior Solar offers opportunity to grow farmer's business while reducing site mechanical mowing – a true win-win!



New Revenues for the Community

Long Term PILOT and Host Community Agreements

- Split between Towns, County and Schools
- Covers value of the project's equipment
- Plan to propose \$2,500/MW, equal to \$875,000/year
- Increase in local revenues with no additional municipal costs

Increased Tax Revenues on Land

- As agricultural exemption is removed, a 5-year tax payment equal to the amount of the exemption is paid
- Going forward, land is assessed at full value, resulting in a boost to the tax base.

Special District Taxes

- Large contributions by the project so special district tax rolls, ex: Fire Departments, Light Districts, etc. as applicable to the project lands

Community Benefit Fund

- \$20,000 per year for the initial 10 years 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 Sardinia and Concord



BEING A GOOD NEIGHBOR

- EDF Renewables integrates projects into the local community through thorough community engagement.
- Stakeholders have the opportunity to communicate their interests for integration into the project design.
- Most of the land beneath and around solar panels remains unused and can accommodate vegetation in the form of grasses, clover or cultural meadows.



ARTICLE 10 PROCESS

What is Article 10?

Article 10 is the New York law authorizing the construction and operation of major electric generating facilities. Article 10 was enacted in 2011 to be a portion of the New York State Public Service Law and empowers the New York State Board on Electric Generation Siting and the Environment ("Siting Board") to issue Certificates of Environmental Compatibility and Public Need ("Certificate") at proposed power facilities.

Your Input Matters!

Article 10 is designed to gather stakeholder input at a relatively early stage, before an Applicant has a fully developed proposal, so that issues and resources of particular concern to the community can be identified and incorporated into final Project design.

Early Public Input from New York Communities is Key to Successful Energy Projects



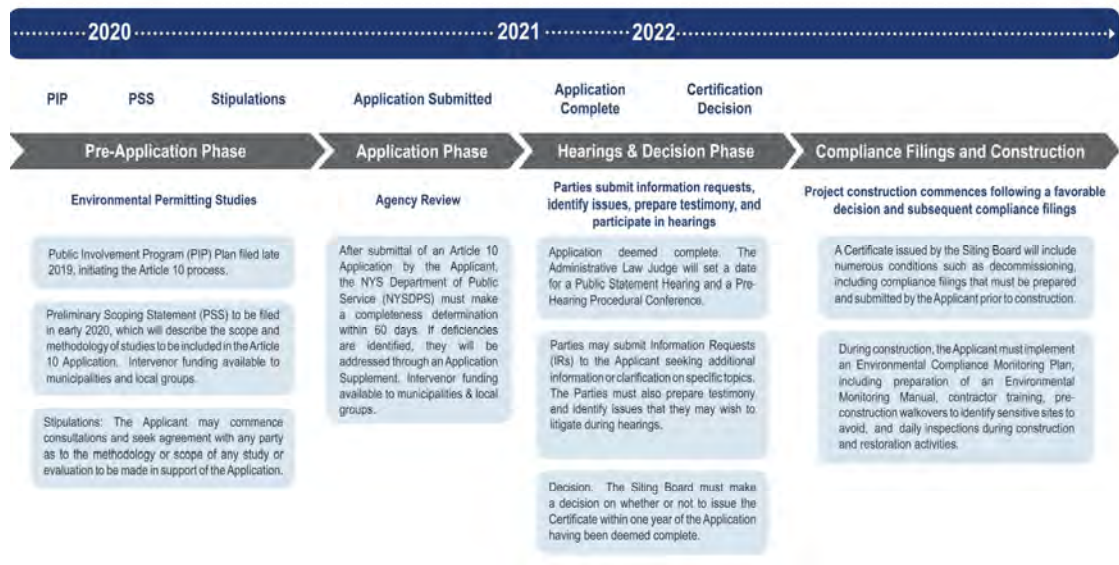
Board on Electric Generation Siting and the Environment

Article 10 Law
Article 10 Regulations
Board Members
Information Coordinator
Press Releases
Public Notices
Procedures and Hearing Rules
Projects Under Review
Requests for Declaratory Rulings
Webcast Schedule
Guides
Forms
FAQ

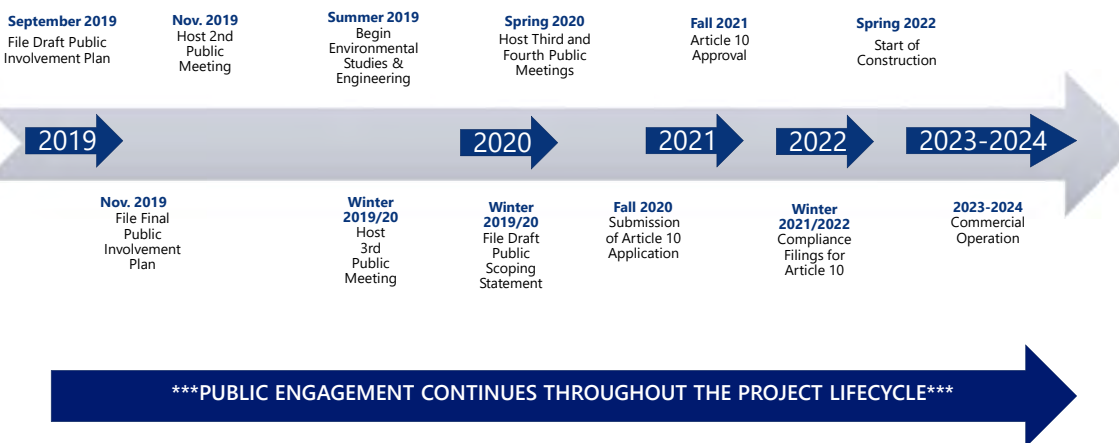


ARTICLE 10 PROCESS

NYS ARTICLE 10 | PERMITTING TIMELINE



PROJECT TIMELINE



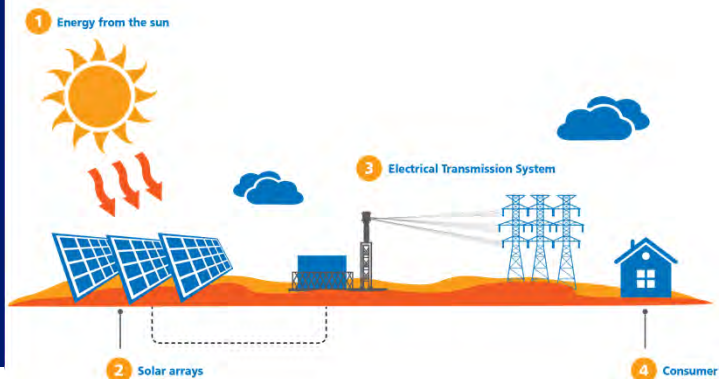
INTERVENOR FUNDING



- Under Article 10, EDF Renewables is required to provide funds for intervenor participation
 - \$350/MW at time the Preliminary Scoping Statement (PSS) is filed – total \$122,500
 - Additional \$1,000/MW at time project Article 10 Application is filed (estimated fall 2019) – total \$350,000
- Following PSS and Application submissions, funds are distributed to parties making a request to cover expenses toward participating in the review and providing feedback on project materials
- At least 50% of the funding is reserved for municipalities
- For more information on intervenor funding, please consult the project speak to one of the team members at the public meeting or visit the NY Department of Public Service Website



HOW DOES SOLAR ENERGY WORK?



- 1 Energy from the sun falls onto the earth's surface each day in the form of sunlight. The sunlight is absorbed by the solar panels, converting it into electricity.
- 2 Solar cells are small, square-shaped silicon semiconductors. Each solar cell is connected into a network of many other solar cells to create a PV (photovoltaic) module or panel. A solar facility is comprised of thousands of panels.
- 3 The absorbed sunlight is transformed into usable energy by way of an inverter that turns direct current (DC) energy into alternating current (AC) electricity. AC is the form of power used in homes and businesses.
- 4 Electricity generated travels through transmission /distribution lines to homes and businesses.



Equipment Safety

- The solar modules being proposed for the Genesee Road Solar Energy Center, and the vast majority of panels used on thousands of New York State homes & businesses, are crystalline silicon panels that are manufactured using **safe and non-toxic materials**.
- The modules are comprised of silicon, copper, and aluminum between glass and plastic with an aluminum frame.
- These types of solar modules cannot release any toxic materials because they **do not contain toxic materials**.
- Inverters and Transformers used to condition power for use on the grid do not contain heavy metals or toxins. **Even during a malfunction or when damaged, no environmental risk is present.**
- Solar panels are installed on galvanized steel & aluminum racking systems installed on driven piles or ground screws. No concrete foundations for solar array racks.
- **No pesticides or herbicides** are used in solar array areas unless mandated by environmental agencies
 - For example if invasive plant species were to develop in the area
 - Within substation, herbicides are required by code to ensure plants do not grow into electrical equipment & cause a fire.



SOLAR FARM EQUIPMENT



Racking mounted on piles



Panels installed on racking



Project substation (grid tie)



Inverter/Transformer Skid



Aerial view of project



Land is revegetated



Decommissioning & Removal

- Decommissioning is the process of removing equipment (solar panels, inverters, transformers) and improvements (roads and fences) and returning the land to original condition.
- Decommissioning of the project is planned from the start, expected in year ~35-40 of the project's life
- Article 10 Permit & local laws require a security, typically in the form of a letter of credit, to be posted to cover the cost to decommission the facility, prior to the start of operation
 - The Host Communities and the State will have access to this letter of credit
 - The amount will be adjusted based on inflation over time
- 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



ENERGY STORAGE

- Project may include energy storage in addition to solar.
- Designed to store electricity until more suitable to inject onto power grid
- In 2019, an Energy Storage System Supplement was added to the New York State Uniform Fire Prevention and Building code
- New York now has some of the strictest design & safety standards for energy storage in the nation.



Example of an energy storage battery enclosure (right of picture) and inverter / transformer (left of picture)

Enclosure contains a series of lithium ion batteries – same technology that powers our electronics and electric vehicles





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