

ORLEANS SOLAR

PRELIMINARY PROJECT OVERVIEW



DECEMBER 21, 2020

Community Energy

- Owner of Orleans Solar
- Based in Philadelphia area
- Privately held
- 20 years in business: solely renewable energy
- 85+ solar projects in a dozen states
- Top 5 developers in USA
- Developed first solar project to receive Article 10 approval

Orleans Solar

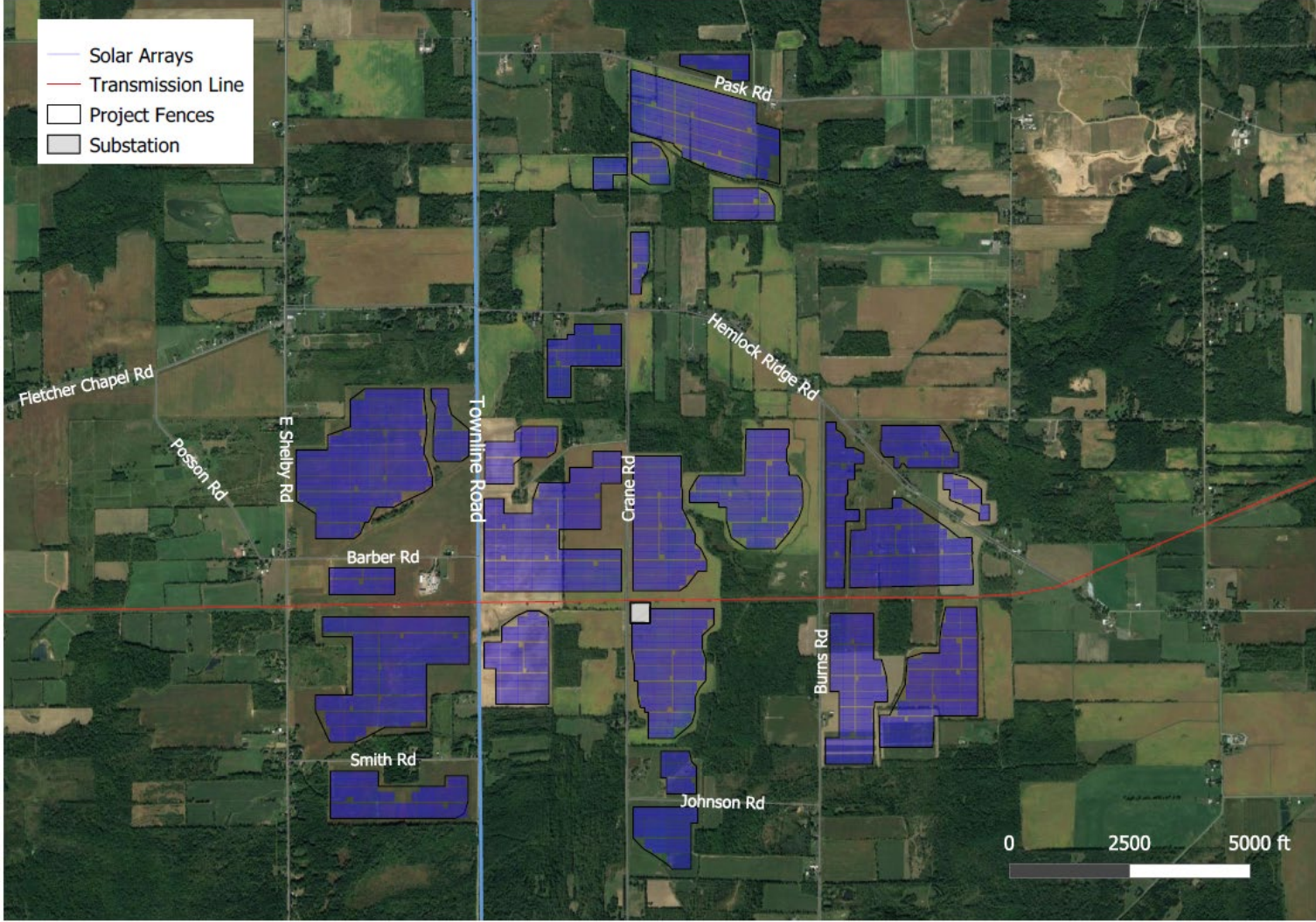
- 200 MW: Equivalent to use of 44,000 households
- Grid connected
- Community Energy: Developer
- Timeline:
 - Permitting complete Q2 2022
 - Construction start Q3 2022
 - Interconnection complete Q3 2023
 - Construction complete Q4 2023



Facility Area

- Leases with approximately 10 landowners
- Final project area under lease to be ~1,300 ac
- ~25% in the Town of Shelby
- ~75% of facility in the Town of Barre

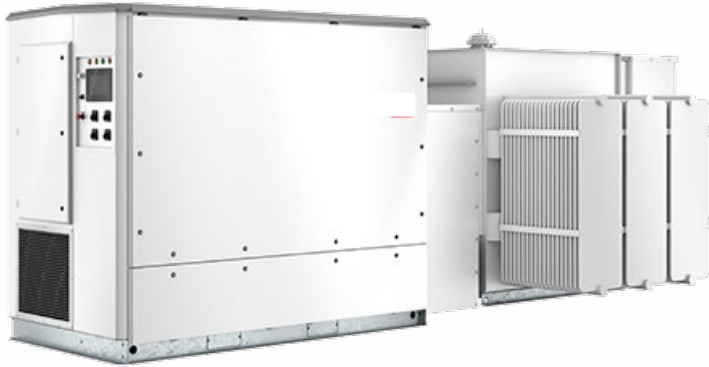
Preliminary Project Layout



The Technology

- Photovoltaic panels on trackers to follow the sun....very common and proven
- Bifacial technology
- 30 year warranty
- Inverters to convert DC to AC
- Buried electrical and communications cables
- Project substation for connection to grid located in Barre





Connecting To The Grid

- We will connect to the existing transmission line running East-West through the project.
- Grid safety and reliability have been examined: no problems detected.
- Orleans Solar expects to enter into the final interconnection study in February 2021.

Agriculture

- Around 1,300 acres leased to the project
- Low mow turf cover and/or pollinator blends
- Invasive weed control plan
- Preserves farms by “keeping it in the family” and allowing the soil to rest for future agricultural use.
- Decommissioning to return to farm use

Natural Resources

- In depth review by NYSDPS, NYSDEC, US Army Corps of Engineers, USFWS, other agencies
- No polluting air emissions
- View sheds analyzed
- Reduced site runoff compared to crop farming
- Maximize avoidance of wetlands and sensitive habitat, creates new meadow habitat
- Zero-emission energy source addresses climate change and grid modernization

No Local Infrastructure Burden

- No need for water or sewer
- No burden on schools
- No additional police/EMS/other services
- No new roads for Town/County to maintain

Economy: Diversify & Grow

- New, additive taxes w/o costs.
- Landowner payments
- Some local FTE jobs...5 to 6
- \$200-250M capital cost infusion
- Branding as progressive community
- Potential career focus

Additional tax revenue

- Orleans County IDA PILOT will be sought.
- PILOT payments are in addition to current, underlying real estate taxes
- Orleans Solar pays all increased and ag exemption roll back taxes

Decommissioning

- Remove all above-ground equipment including complete removal of posts
- Restore land to farmable conditions
- Financial surety by project company, determined by independent engineer and provided to satisfaction of local municipalities and ORES
- Decommissioning cost estimate updated every 5 years by licensed NY professional engineer

NYS 94-C (ORES) Permitting

- Since larger than 25MW, Orleans Solar must follow 94-C or Article 10
- Local input is critical to the process
 - **Compliance with Local Laws**
 - **Public meetings/engagement**

Existing Article 10 Siting Process

- Decisions made by the Department of Public Service (DPS) and the Board on Electric Generation Siting and the Environment (Siting Board)
- Includes a pre-application phase with a Public Involvement Program Plan (PIP) and Preliminary Scoping Statement (PSS)
- Almost all Article 10 projects to date have required some level of hearings and briefing
- 8 wind projects and 1 solar project have been certified under Article 10 since 2018, only one project is in construction
- Typical Article 10 project could take 3 or more years to get to a Certificate

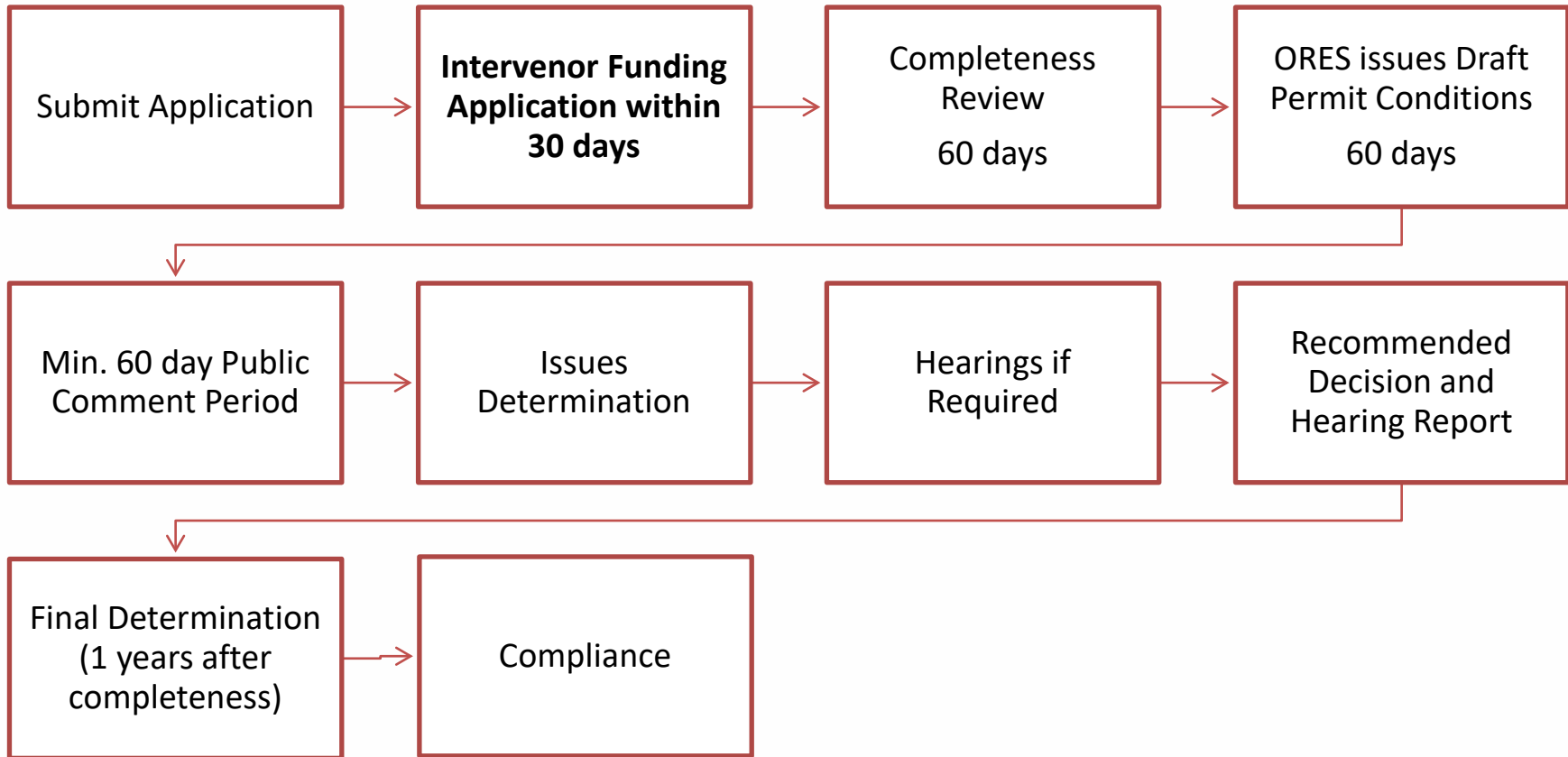
New “Section 94-c” Siting Process

- Decision made by the Office of Renewable Energy Siting (ORES) within the Department of State - draft Regulations and Uniform Standards and Conditions (USC) were issued by ORES on September 16, 2020
- Provides for election into process for existing Article 10 projects
- Requires pre-application consultations with state agencies, host municipalities and meeting with community members
- Site-specific conditions may be developed in consultation with DEC – those impacts unable to be addressed by USC
- Project must be designed to avoid or minimize, to the maximum extent practicable, potentially significant adverse environmental impacts

New “Section 94-c” Siting Process

- Office must make finding that the project, along with uniform and site-specific conditions, would comply with applicable laws and regulations
- Only projects with “substantive and significant” issues require hearings and briefing
- ORES can elect not to apply a local law that is unreasonably burdensome in view of CLCPA targets and environmental benefits of project
- Requires municipalities to submit a statement of compliance with local laws
- Local community intervenors and host towns able to seek intervenor funds (\$1,000/MW)
 - 75% of funds reserved for municipalities
 - Must apply for funds within 30 days of application filing
- Requires host community benefit

Section 94-c Overview



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DECEMBER 21ST, 2020

Technical Topics Overview

- Content of a 94-c siting application
 - Wetlands and Streams
 - Avian Studies
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Ben Brazell

Principal, Environmental Services

Technical Topics Overview

- **Content of a 94-c siting application**
- Wetlands and Streams
- Avian Studies

Section 94-c Application Exhibits

- | | |
|--|---|
| 1: General Requirements | 14: Wetlands |
| 2: Overview and Public Involvement | 15: Agricultural Resources |
| 3: Location of Facilities and Surrounding Land Use | 16: Effect on Transportation |
| 4: Real Property | 17: Consistency with Energy Planning Objectives |
| 5: Design Drawings | 18: Socioeconomic Effects |
| 6: Public Health, Safety and Security | 19: Environmental Justice |
| 7: Noise and Vibration | 20: Effect on Communications |
| 8: Visual Impacts | 21: Electric System Effects and Interconnection |
| 9: Cultural Resources | 22: Electric and Magnetic Fields |
| 10: Geology, Seismology and Soils | 23: Site Restoration and Decommissioning |
| 11: Terrestrial Ecology | 24: Local Laws and Ordinances |
| 12: NYS Threatened or Endangered Species | 25: Other Permits and Approvals |
| 13: Water Resources and Aquatic Ecology | |



Technical Topics Overview

- **Content of a 94-c siting application**
- Wetlands and Streams
- Avian Studies

Section 94-c Studies

- Preconstruction Noise Impact Assessment – RSG*
- Visual Impact Assessment - EDR*
- Historic Resources Survey – EDR*
- Phase IA and Phase IB Archaeological Surveys – EDR*
- Preliminary Geotechnical Evaluation - TBD
- Wildlife Surveys – EDR*
- Wetland and Stream Delineation Survey and Report – EDR*
- Route Evaluation Study - TBD
- Communications Studies (AM/FM Radio, TV, microwave analysis, etc.) – ComSearch/EDR
- Electric and Magnetic Fields – TBD

** Denotes an initiated study*

Technical Topics Overview

- Content of a 94-c siting application
- **Wetlands and Streams**
- Avian Studies

Wetlands and Streams

- Wetland and stream delineations were conducted between October and November 2020.
- Boundaries of all wetlands and streams on lands associated with the Project were delineated.
- Results will be used to inform impact avoidance and minimization.
- Wetland and Stream Delineation Report prepared to support jurisdictional determinations and the 94-c Application.



Technical Topics Overview

- Content of a 94-c siting application
- Wetlands and Streams
- **Avian Studies**

Avian Studies

- Consultation with US Fish and Wildlife Service, NY Natural Heritage Program, and NY State Department of Environmental Conservation to identify listed threatened & endangered (T&E) species in the project vicinity initiated in December 2019.
- Evaluation of habitat at project site to determine potential for T&E species to be present was conducted in January 2020 and updated for new parcels added between June and November 2020.
- Grassland and agricultural fields can provide habitat for state-listed T&E avian species identified, such as northern harrier, short-eared owl, and upland sandpiper.
- Work Plans developed in coordination with NYSDEC, following NYSDEC Guidelines.
- Targeted surveys completed or ongoing, including:
 - Breeding Bird Surveys (Completed May-July 2020)
 - Wintering Raptor Surveys (November 2020 – March 2021)
- Surveys will assess presence of sensitive avian species to inform potential impacts from the Facility.

Technical Topics Overview

- Visual Resources
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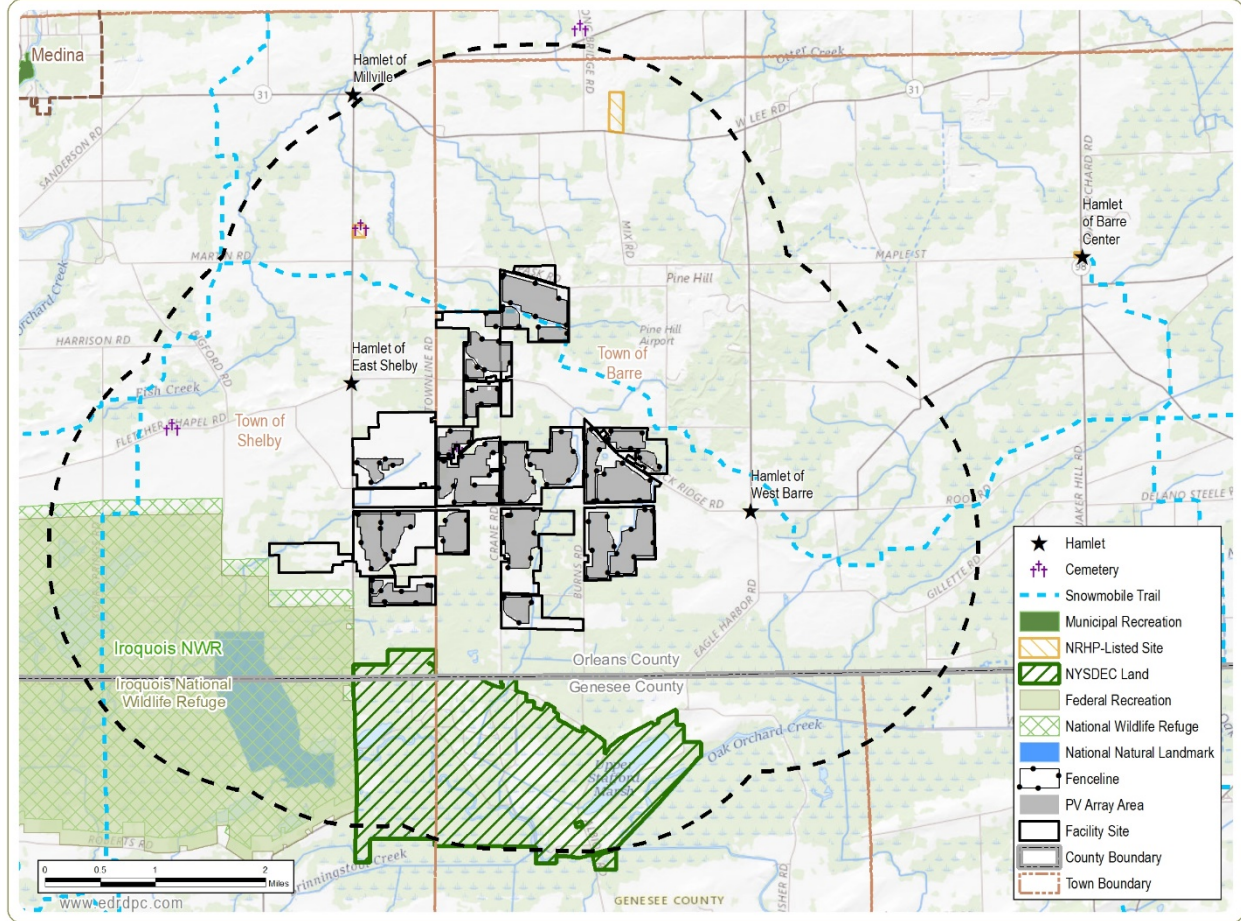


Matthew Robinson
Visualization Project Manager

Define Affected Environment

- **Visual Resources**

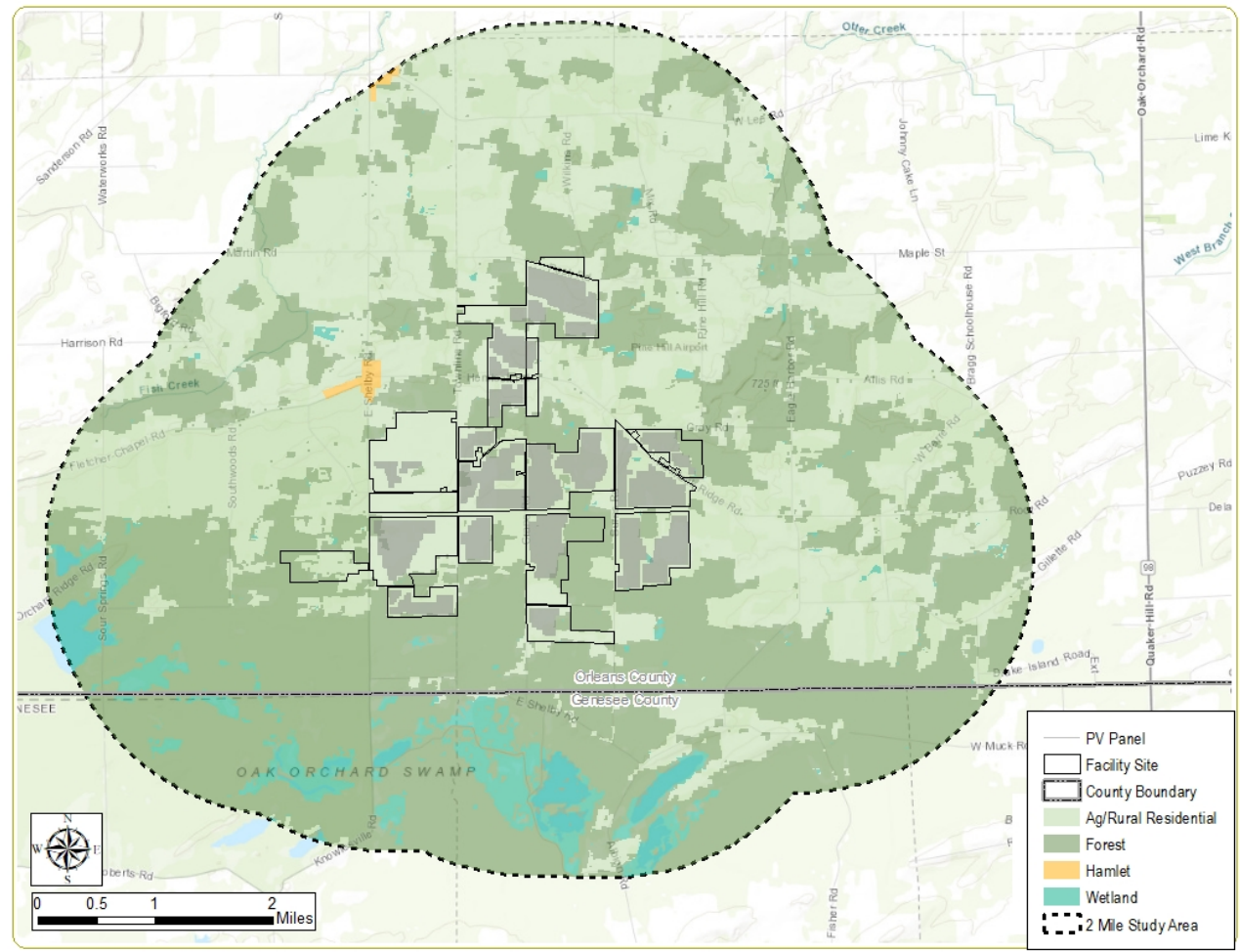
- Definition of **Visual Study Area** (2-miles)
- Identification of **Visually Sensitive Resources**
- Identification of **Viewer Groups**
- Identification of **Landscape Similarity Zones**
- Public Information Outreach



- Visual Resources

Landscape Similarity Zones

- Agricultural/Rural
- Residential
- Forest
- Hamlet
- Wetland



- **Visual Resources**

Evaluate Potential Visibility

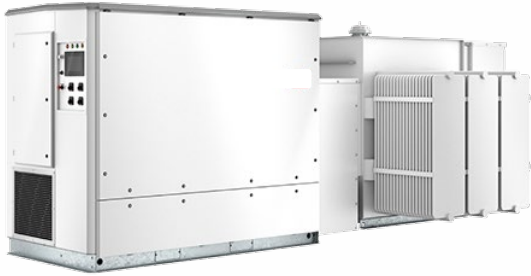
- Viewshed Analysis
- Field Review/Assessment



- **Visual Resources**

Appearance of the Facility

- **Proposed Equipment**
 - PV panels
 - Racking
 - Inverters
 - Fencing
 - 3D Model
 - Visual Simulations
- 3D Model



- **Visual Resources**

Visual Impact Analysis

- Visual Simulations
- From representative viewpoints, Including
- LSZ, Distance Zone, areas of public concentration, VSRs



Technical Topics Overview

- **Visual Resources**



Visual Impact Analysis

- Rating Panel consists of professionals trained in the field of visual assessments, including Landscape Architects and Planners
- Mix of In house and independent professionals with no connection to the project.
- Evaluate contrast of the Facility with the existing landscape
 - VSRs
 - Viewers
 - LSZs

- **Visual Resources**

Results and Conclusions

- **Visual Impact Assessment** (including background research, field experience, and public outreach)
 - Potential Visibility
 - Visual Impact
 - Need for Visual Mitigation

