

# WHITE CREEK SOLAR

### PRELIMINARY PROJECT OVERVIEW



## JANUARY 5, 2021





## **About Community Energy**



- Privately held
- 21 Years in renewable energy
- 2,000 MW of renewable energy projects
- 85+ solar projects in a dozen states
- 50-person team
- Developed first solar project to receive Article 10 approval





## **About Community Energy**

Community Energy Solar LLC. is one of the leading and most experienced independent solar project developers in the U.S.

Founded in 1999, we have 21 years of experience moving renewable energy projects through successful permitting from conception to construction. We are not captive to any technology or source of project finance.

**Proven team delivering successful ground-mounted solar projects.** Over the past decade, Community Energy has developed and financed 1,300 MW of solar power. These 85+ solar projects range from 1MW to 200 MW from Colorado to New York and North Carolina.

#### **50 person organization with offices in Philadelphia, PA and Boulder, CO.** Our project development process is driven by our principals and decisionmakers who have a deep understanding of the renewable energy industry.



of experience working together as a team



of solar PV projects developed to date



of wind projects developed to date



## White Creek Solar

- 135 MW Solar Project
- Located in York and Leicester
- Equivalent to use of 30,000 households
- Grid connected
- Community Energy: Developer
- Timeline:
  - Permitting complete Q2 2022
  - Construction start Q3 2022
  - Interconnection complete Q3 2023
  - Construction complete Q4 2023





# **Preliminary Project Layout**

- Leases with 4 landowners
- Final project area under lease to be ~1,000 ac
- ~65% in the Town of York
- ~35% of facility in the Town of Leicester





Preliminary Project Layout





# Solar 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 York.



## **Photovoltaic panels**

# Primary materials (and % of solar panel construction):

- Glass (76%-97%)
- Aluminum (7% -10%)
- Silicon (5%-7%)
- The remaining materials consist of wiring and conductors made of copper, silver, and zinc.

Of these materials, 95% of the glass and 100% of the aluminum is recyclable. Overall, solar panels consist of less than 1% nonrecyclable materials. Solar panel recycling programs are already in place in the U.S.





## **Single Axis Tracking Technology**



New solar panels track the sun like a sunflower



## **Typical Solar Trackers and Inverters**









## **Typical Solar Array Configuration and Flow of Energy**



Keystone Solar, 5 MW AC project located in Lancaster County, PA



## **Connecting to the Grid**

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





# Agriculture

- Around 1,000 acres leased to the project
- Siting avoids the prime farmland areas as determined by the Towns of York and Leicester
- Low mow turf cover and/or pollinator blends will be planted beneath the panels
- 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









# **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: Diversity & Grow**

#### **Additional Tax Revenue**

- The land hosting the solar project will no longer be taxed at the lower rate provided for agricultural land and will generate many times more in taxes compared to current land use. White Creek Solar pays all increased and ag exemption roll back taxes
- Livingston County IDA PILOT will be sought. PILOT payments are in addition to current, underlying real estate taxes

# \$150-175M capital cost infusion. Development and construction provide for increased economic activity in the region such as the following:

- Construction Contracts for local businesses: Electrical, Landscape, Site Work, etc.
- Local Economic Stimulus during construction: Hotels, Restaurants, Shops, Entertainment, etc.
- Local Stimulus after construction: The local community benefits from increased tax revenue on the value of the installed equipment. This increased tax benefit comes without increased pressure on community services such as roads, schools, libraries, and first responders.
- Full-Time Operations and Maintenance Jobs:~ 4 full-time equivalent O&M jobs



## **Local Economic Opportunity**

**Construction Jobs** 



A typical solar project has a 12-15 month construction period. During this period we work to hire local installation and electrical construction labor. There are also indirect benefits to the local business. During the life of the project it will be properly up kept and managed via operations and maintenance jobs.



# **Solar Project Decommissioning**



#### **Restore for future farming**

- Remove all above-ground and below 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
- Land Available For Farming (Future Generations)
  - Cover crops enhance soil over the life of the project

# NYS 94-C (ORES) Permitting

- Since larger than 25MW, White Creek 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



# WHITE CREEK SOLAR PRELIMINARY PROJECT OVERVIEW



## JANUARY 5<sup>TH</sup>, 2021

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



### Ben Brazell Principal, Environmental Services



- 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** 16: Effect on Transportation 3: Location of Facilities and Surrounding Land Use 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



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## 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
- Electric and Magnetic Fields TBD
- \* Denotes an initiated study





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# Wetlands and Streams

- Wetland and stream delineations were conducted between August 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.





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## **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.
- Grassland and agricultural fields can provide habitat for state-listed T&E avian species identified, such as northern harrier and short-eared owl.
- 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/April 2021)
- Surveys will assess presence of sensitive avian species to inform potential impacts from the Facility.



• Visual Resources



## Matthew Robinson

Visualization Project Manager





- Visual Resources
- Definition of Visual Study
  Area (2-miles)
- Identification of Visually
  Sensitive Resources
- Identification of Viewer
  - Groups
- Viewshed Analysis / Mapping
- Public Information
  Outreach

# **Define Affected Environment**





• Visual Resources

#### Landscape Similarity Zones

- Rural Residential / Agricultural
- Forest
- Hamlet
- Transportation Corridor
- Village

# **Define Affected Environment**

• Example Landscape Similarity Zones





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 Resources

# Visual Impact Analysis

- Visual Simulations
- From representative viewpoints, Including,

LSZ, Distance Zone, areas of public concentration and VSRs



Visual Resources



# Visual Impact Analysis

- Rating Panel consists of professionals trained in the field of visual assessments, includes 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



