



# SILICON RANCH



**A Shell New Energies Partner**

Town of Torrington Conservation Commission  
November 18, 2021

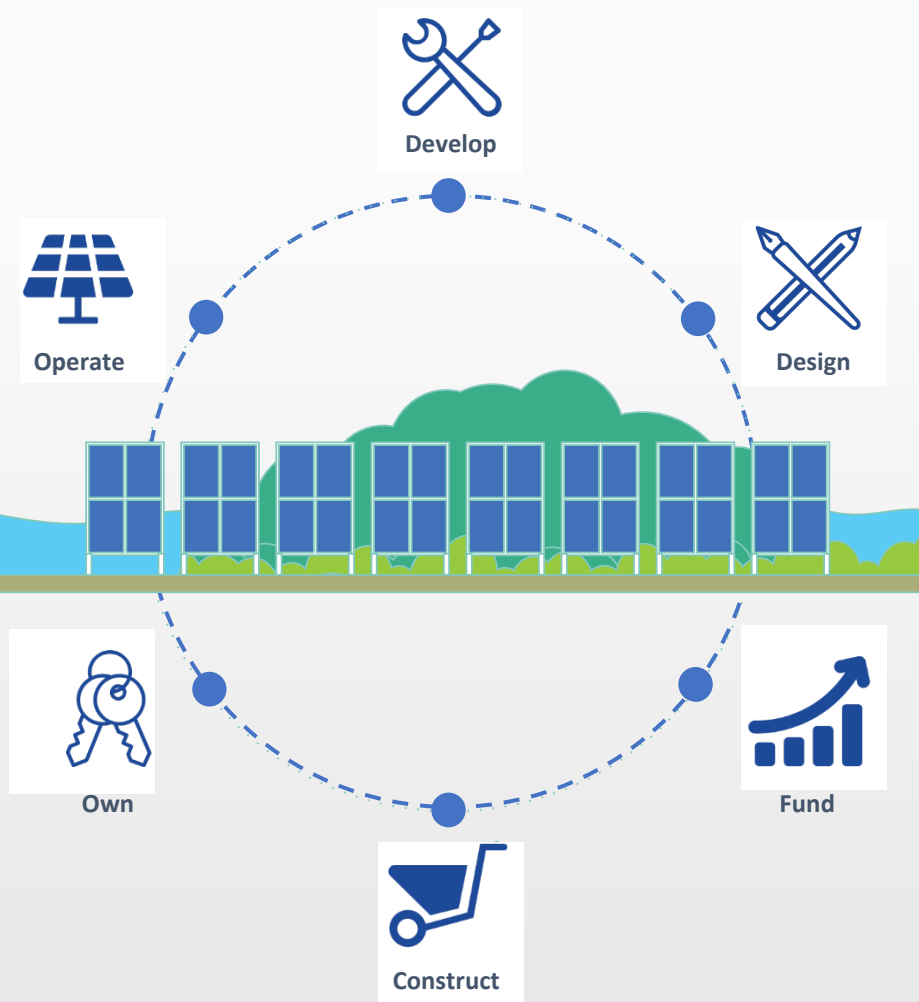




# I. Company Overview



# Silicon Ranch Business Model



## Platform Expertise

### Develop

- Originate development process based on customer demand
- Secure favorable interconnection in consultation with community partners
- Secure quality buildable sites through strong community relations

### Design

- Projects engineered for 40-year design life
- Tier 1 equipment selected to maximize long-term performance
- World class O&M team provides continuous feedback to improve performance and minimize annual maintenance costs

### Fund

- Access to captive finance companies allows financial optimization and streamlines project finance process
- National award winning in-house financial team has deep experience with all tax equity structures

### Construct

- SR EPC is a licensed general contractor in over 20 states, allowing Silicon Ranch to control all aspects of plant and interconnection construction
- SR EPC subcontracts with leading national construction firms and directly procures from leading module and transformer manufacturers

### Own

- Unlike most solar developers, the Company owns 20,000+ acres of prime solar sites and has purchase options on tens of thousands of acres, **strategically located** to support its contracted backlog and development pipeline

### Operate

- In-house O&M team advances robust designs to drive higher standards of quality and extend the facility's lifespan
- State-of-the-art control center at headquarters

# Silicon Ranch Snapshot

*One of the nation's largest independent power producers and the U.S. solar platform for Shell*

- **Long-term Owners and Operators:** In-house technical and financial teams manage projects throughout their entire lifecycle
- **Project Portfolio:** One of the largest independent power producers in the nation with **1.1 GW+ of operating PV systems** that span coast-to-coast
- **Financial Strength:** Backed by Shell and other global institutional investors with on-demand capital to fund growing pipeline
- **Collaborative Approach:** Tailored solutions to support customers' goals and cooperatives' principles
- **Execution Focus:** Company has successfully completed every project for which it has signed a Power Purchase Agreement

# Community Engagement

A photograph of a large solar farm at sunset. The foreground is dominated by rows of solar panels, which recede into the distance. The sky is filled with soft, golden light from the setting sun, with scattered clouds catching the light. The overall mood is peaceful and hopeful, suggesting a bright future for renewable energy.

# Community Engagement

*Silicon Ranch works cooperatively with the communities it serves*

## Community Engagement Guidelines

*A Lifecycle Approach to Stakeholder Relations  
in the Communities We Serve*



- Solar projects are not only technical projects but also **social projects**
- *"When we founded Silicon Ranch, we set out to build a company that would benefit the communities in which we live and work. Fundamentally, we understand that **when developed responsibly, solar energy projects create enduring, long-term value and deliver a meaningful legacy to their communities.**"*

**-Matt Kisber, CEO**



# Mavericks Solar Farm

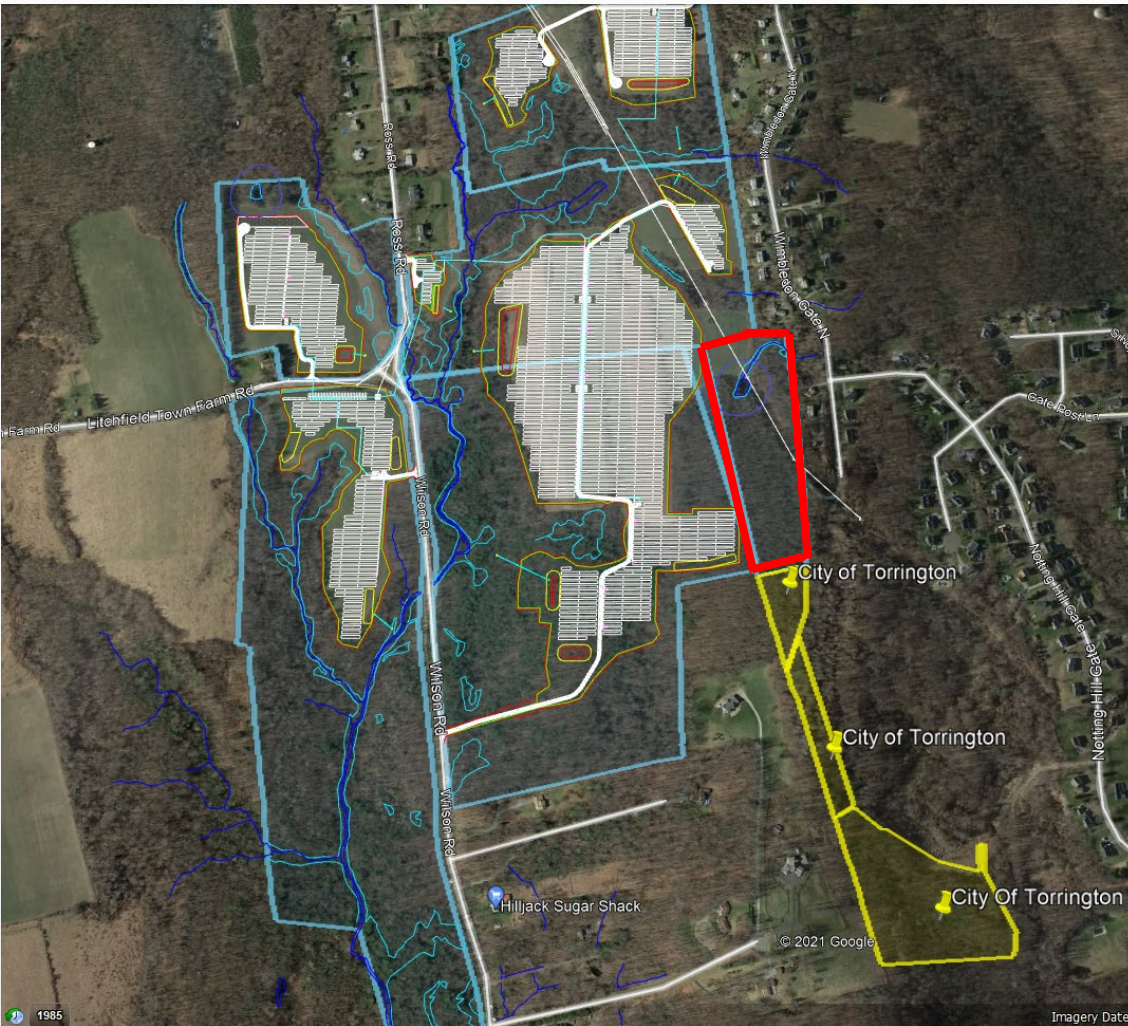
***"This project will educate local students about how we can use the earth's resources wisely and support the advancement of emerging technologies in a thoughtful, responsible manner."***

– Troy Whitmore, Public Affairs Officer, United Power

- Educational partnership between, Silicon Ranch, United Power and Mead Energy Academy
  - Creates STEM-based opportunities for local students
  - 6.5 MW<sub>AC</sub> Mavericks Solar Farm named after Mead Energy Academy's mascot
  - Project is 2<sup>nd</sup> of 3 in partnership with United Power



# Open Space



- Silicon Ranch Property
- City of Torrington Property (Designated Open Space)
- Area Available for Open Space (7.5 Acres)





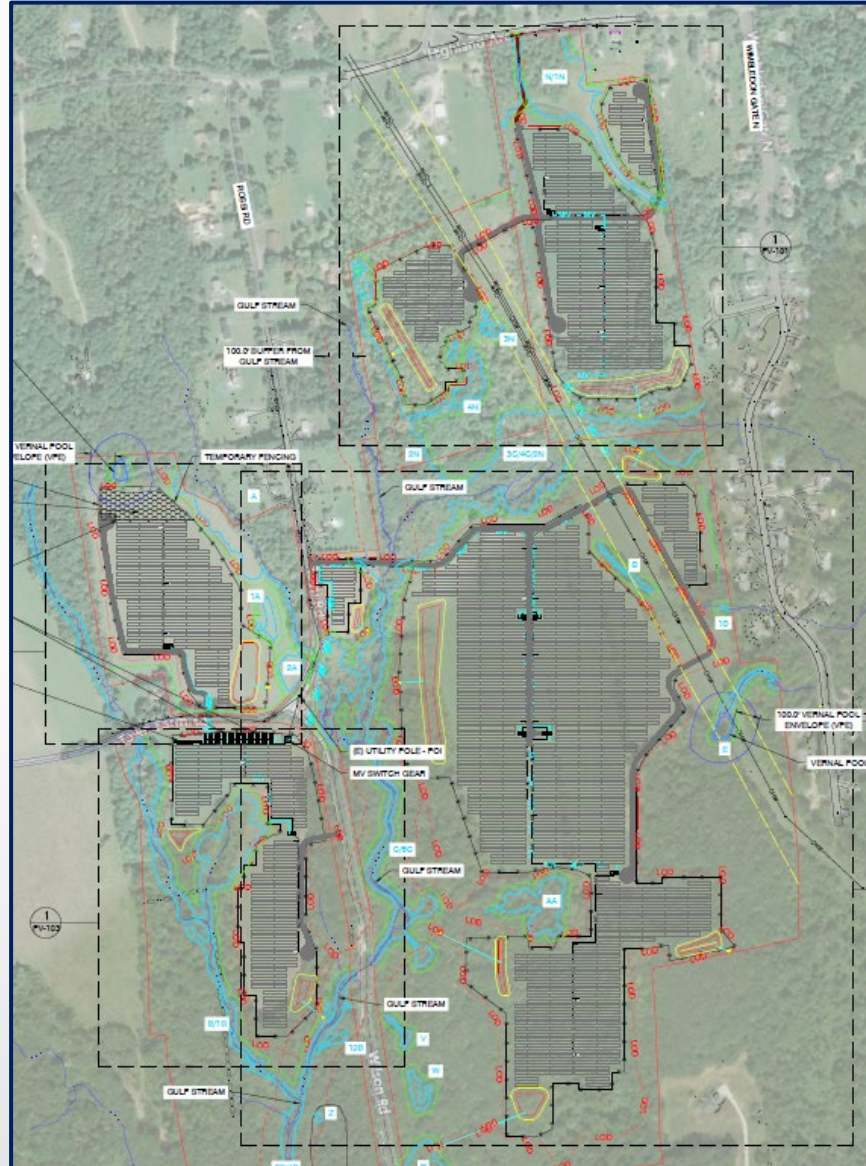
# **Appendix SR Litchfield Project Specifications**

# Project Overview

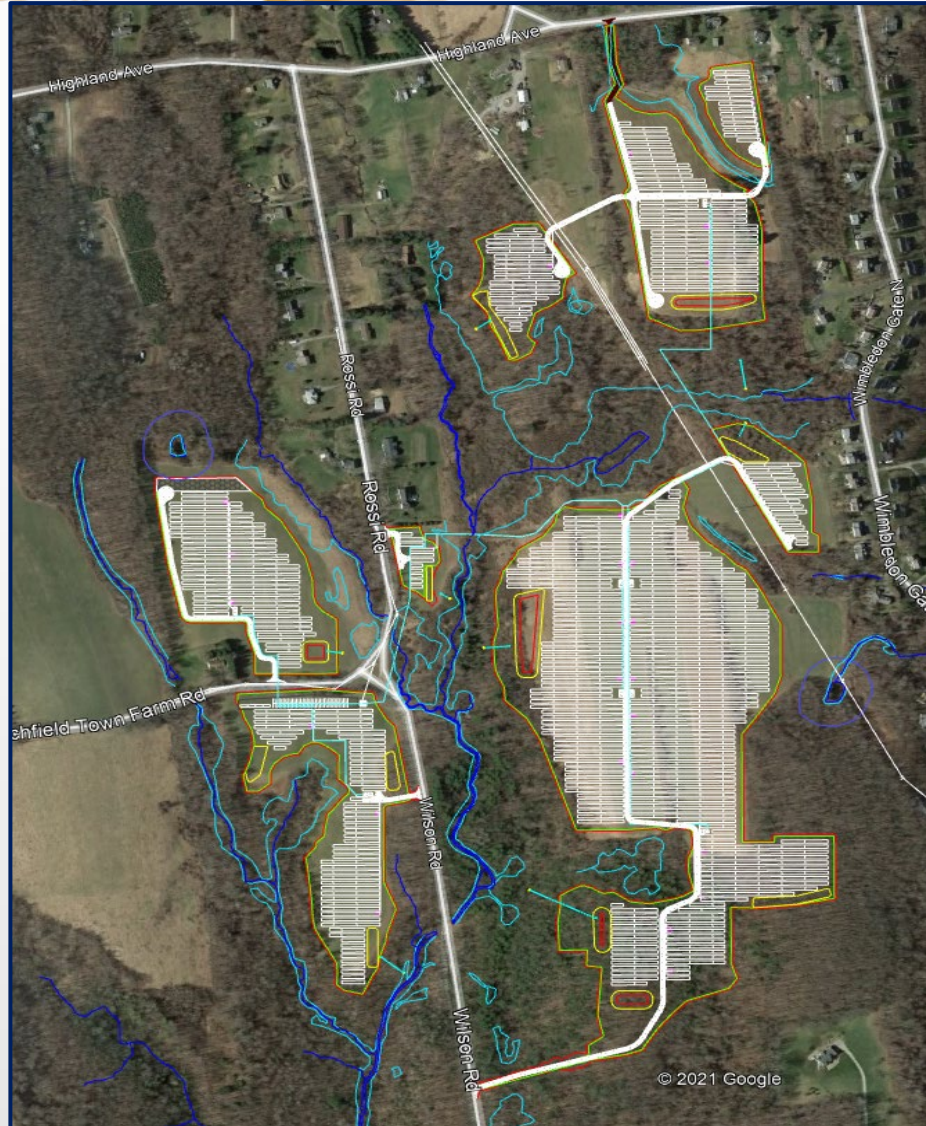
- Location: Highland Ave, location in Litchfield and Torrington
- Project Size: 19.8MWac
  - 71-acre array footprint on a 215-acre site
- Number of Solar Panels: 51,300
  - Module Type: Hanwha Q Cells Q Peak Duo 475W
  - 455-watt panels previous standard until June 2021
- Number of Homes Powered: 3,000
- Commercial Operation Date: June 21, 2022
- Total Capital Investment between \$30MM-\$40MM
  - Cost of project will be funded entirely by Silicon Ranch
  - Includes project costs, land acquisition, and interconnection grid improvements



# Initial Project Layout

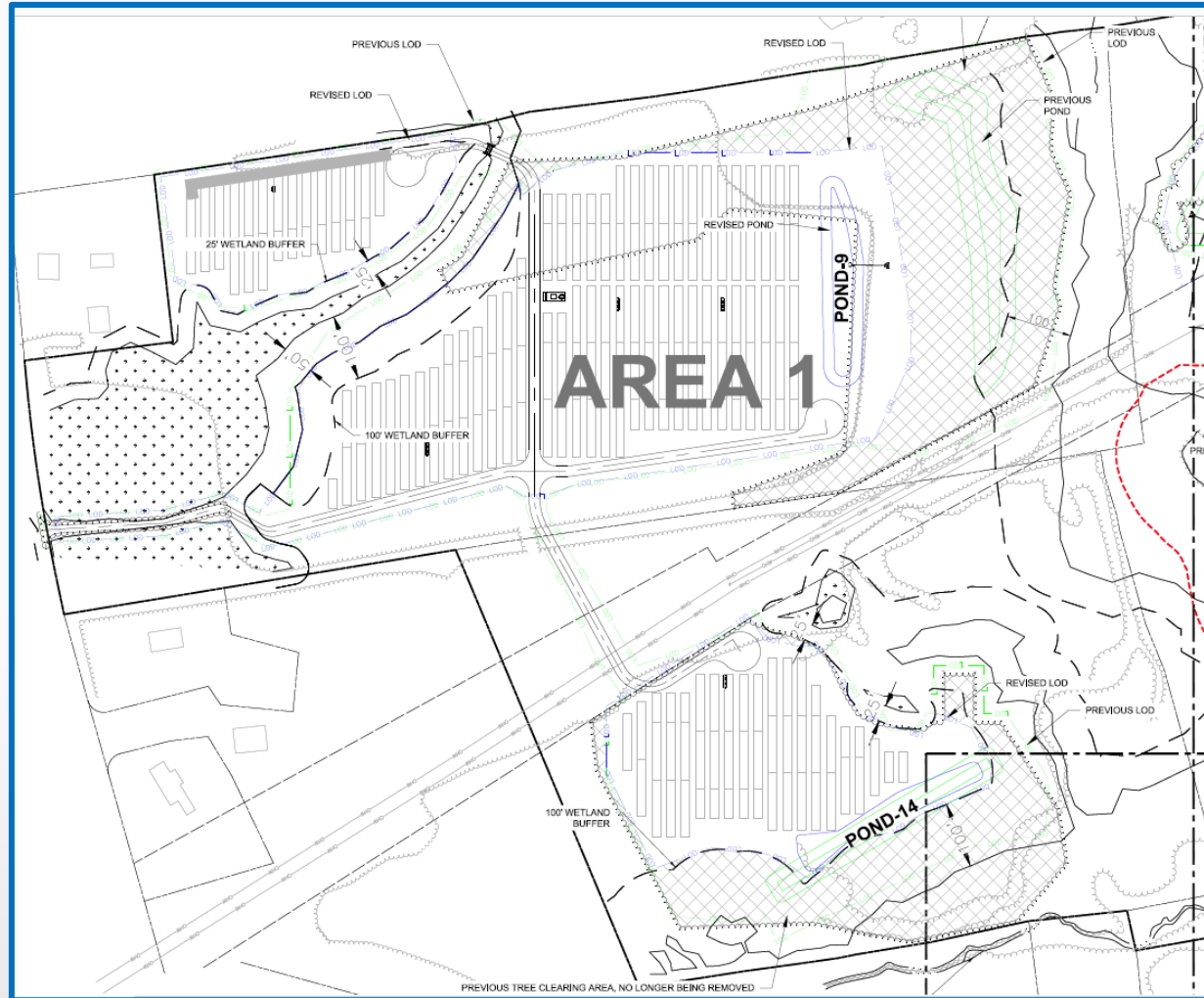


# Final Project Layout



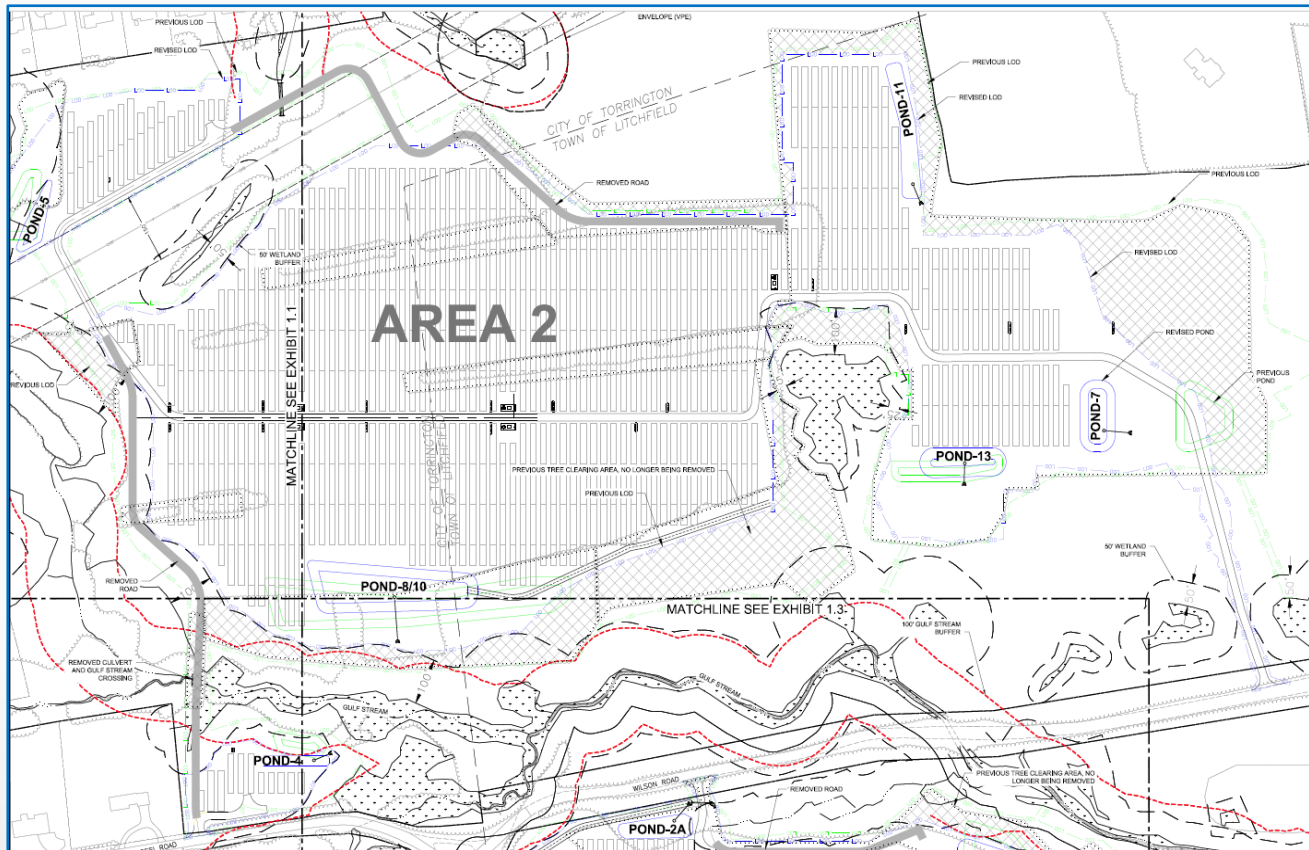


# Area One



- **Modules**
  - Removed several rows attributed to higher wattage panel
  - LOD subsequently reduced by 6.5 acres
- **Road**
  - Reduced from 16 feet to 12 feet
  - 50% reduction to wetland impacts
- **Tree Clearing**
  - Reduced by 6.3 acres
  - 62% reduction from initial design

# Area Two



## Modules

- Several rows reduced
- LOD reduced by 11.75 acres
- Tree clearing reduced by 9 acres

## Road

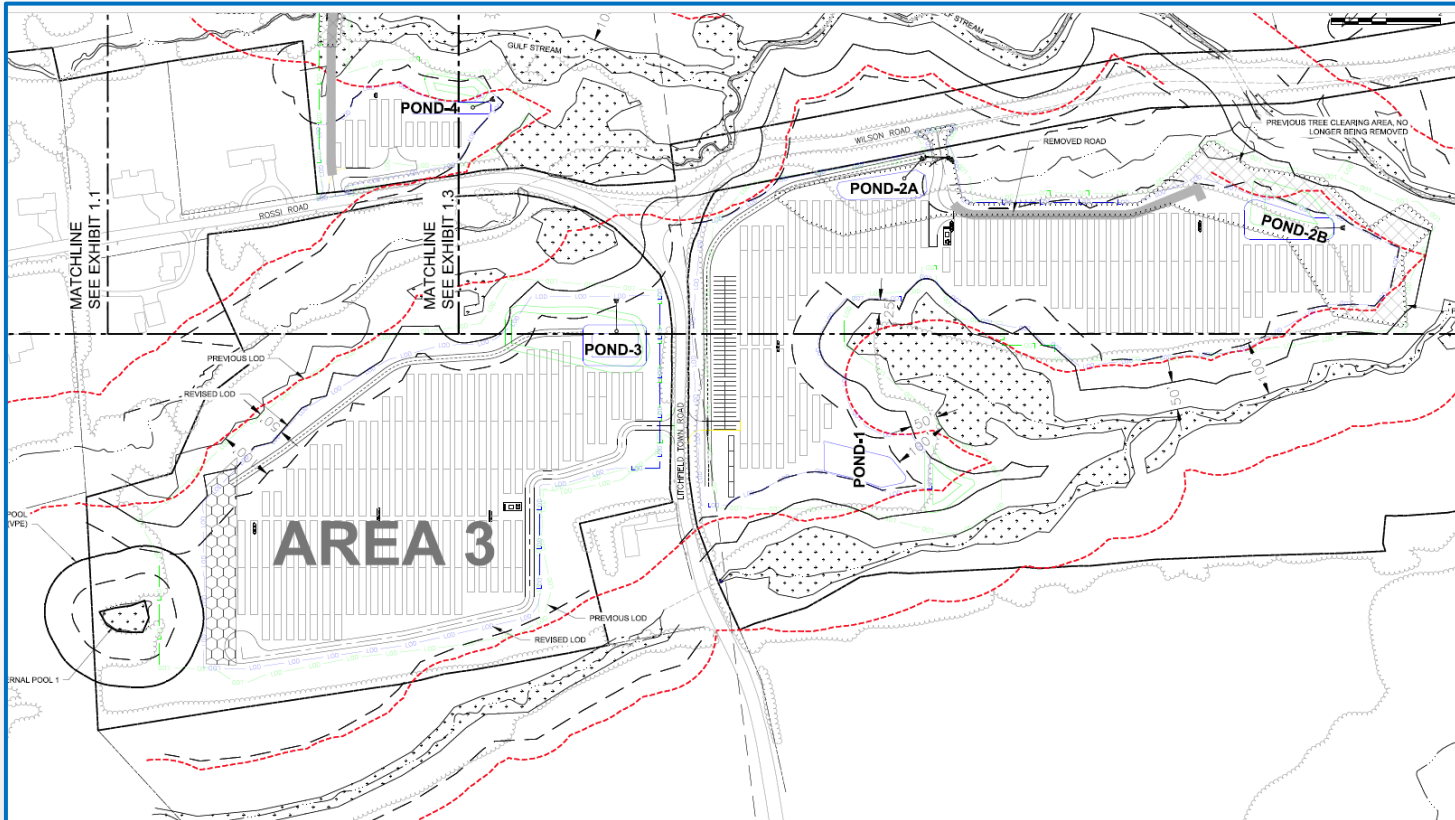
- Removed existing crossing of Gulf Stream
- Removed access road along eastern property line
- Zero impacts to Gulf Stream corridor

## Laydown Yard

- Removed and will 'build our way out'
- Stormwater pond 8/10 substantially reduced



# Area Three



## Modules

- Removed several rows of panels
- LOD reduced by 4.3 acres
- Tree clearing reduced by 0.6 acres

## Road

- Removed access road south of Town Farm
- Stormwater basin 2 split into two, reducing LOD

# ...By the Numbers

- 50% reduction in amount of earthwork
- 30%, on average, reduction to the size of Stormwater Ponds;
  - Sediment traps and compost filter socks will also be used throughout site during construction to capture sediment runoff at point source
- Maintenance of 100-foot buffer from Gulf Stream and its tributaries throughout site
- Maintenance of 100-foot buffer from both vernal pools on site
- Establishment of 100-foot buffer upstream of all wetlands on site
- Reduction of wetland disturbance by more than 50%
- Reduction of the overall disturbance (grading, clearing, fencing, etc.) site-wide by more than 25%
- Reduction of grading site-wide by more than 80%
- Reduction of tree clearing by more than 62%





# Jurisdiction Statistics

	Torrington	Litchfield	Total
Property	102 Acres	113 Acres	215 Acres
Project Limits of Disturbance	37.7 Acres	33.3 Acres	71 Acres
Number of Megawatts	10.51MWac	9.29MWac	19.8MWac
Tree Clearing	7.77 Acres	7.3 Acres	15 Acres
Permanent Points of Access	1	3	4

# Schedule

- Development & Maintenance (D&M) Plan submitted to Siting Council in coming weeks
- Pending timing of approval, mobilization and tree clearing to commence Q1 2022
- Commercial Operation Date- June 21, 2022



A photograph of a solar farm at sunset. The solar panels are in the foreground, and the sky is filled with colorful clouds. The word "Questions?" is written in a bold, dark blue font, centered in the upper half of the image, enclosed in a yellow-bordered box.

**Questions?**