

# Ring Road Solar & ESS Project

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Plympton/Kingston, MA



4,433.00KWDC/2,000.00KW AC  
(1P SAT)



13,500 Kwh DC-COUPLED  
ENERGY STORAGE SYSTEM





## Key Features and Benefits

- **Land Use Efficiency:**
  - Dual Use – Solar and Cranberry Sale Revenues
  - DC Coupled Battery – Additional Solar energy to store!
- **Designed for Farming Access:**
  - Modules installed 10LF high
  - Foundation Locations planned for Equipment Turns
- **Crop Productivity & Water Conservation:**
  - Shade reduces temperature extremes benefiting heat sensitive crops
  - Lesser Irrigation Needs!
- **Smart Program with Agri Adder**
- **Collaboration with UMass**
  - Yield, Compaction & Plant BioMass





# Design

- Ground Coverage Ratio
  - Different Pitch/Row-Row for Crop Yields
- Extensive Structural Design due to Organics and 10LF high Modules
- Routing Electrical Infrastructure
  - CAB Posts (minimal trenching!)
  - DC Combiner Locations (for access)
  - Avoiding Irrigation structures/ditches
  - Bog to Bog and then field to field!
- (2) separate AHJs





## Pile installation

- Specialized Equipment/predrill
- Routing Path/Matts (min. turns!)
- Refusal Strategy/design
- Protect Wines





## Rack/Module Install

- Safety at 10LF high Install
- Low productivity
- Construction Sequence





# Specialized crew training

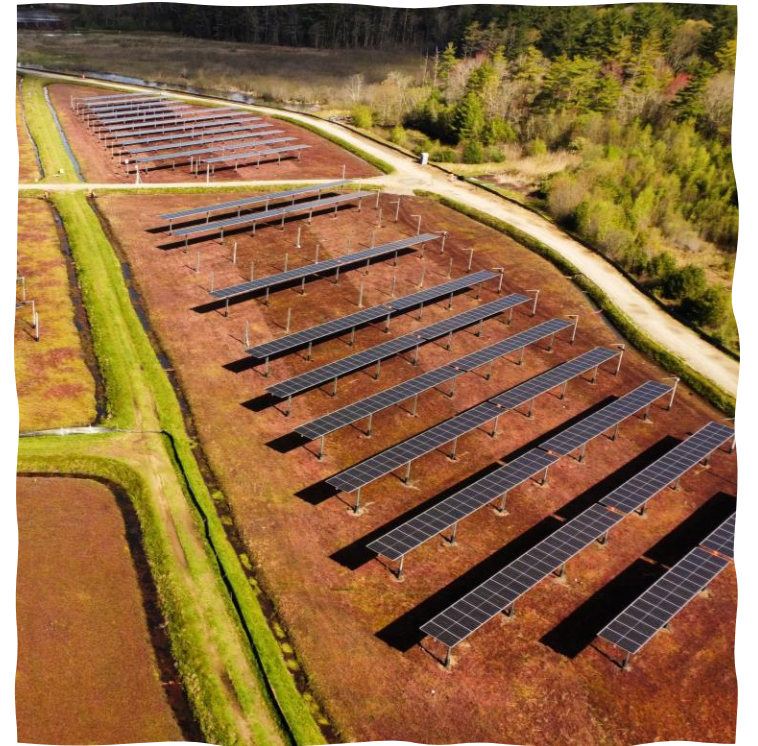
- Matting!
  - Types/Color/specifications
  - Duration
- Route Planning
- Material Management
- Debris Management (working with food!)
- Working with a Farmers perspective!





# Path forward

An EPC's perspective





- Involve EPC firm as early as possible!
  - Permit Reviews
  - Farming operations and design/construction
  - Constant Stakeholder Communication
  - Sowing/Harvest Seasons & Schedule
  - Farmer Safety!





- More data the better!
  - Gaining insights of subsurface conditions!
  - Soil testing & compaction levels
  - Drain tiles/irrigation systems
  - Fertilizer spraying methods
- Equipment Selection
  - Racking System heavily dictates land usage
  - Type of electrical design
    - Trench V/S CAB
    - Equipment in the field
  - Farmer Safety during operations
- Plant Operations/SOP
  - Develop with Farmer's input!





**Thank you!**

**Prateek Tare**  
**Co-Founder/Executive VP**  
[ptare@distributedei.com](mailto:ptare@distributedei.com)

