# MPSC Renewable Energy and Energy Storage Facility Siting Meeting



MPSC Staff

April 26, 2024



# Disclaimer

This meeting will be recorded and the recording will be posted.

The opinions expressed today are the speaker's own and do not reflect the view of the Michigan **Public Service** Commission or the State of Michigan.



# Agenda

#### > Welcome and Intro – Julie Baldwin, MPSC

- Site Plan Presentations and Discussion
  - ➢ Dr. Laura Sherman, MI EIBC
  - > Amber Miller, National Grid Renewables
  - Christina Martens, Savion
  - Daniel Vertucci, Invenergy
- Comments Received on MPSC Staff Straw Proposals
  - MPSC Staff & and interested respondents
- U of M Capstone Siting Research Update
  - > U of M Taubman College of Architecture and Urban Planning Graduate Students
- > Open Comment Period All participants
- Next Steps and Closing Cathy Cole, MPSC

#### Sign up for our email distribution list:

www.michigan.gov/mpsc/commission/workgroups/ 2023-energy-legislation/renewable-energy-andenergy-storage-facility-siting



## **Implementation Process**

#### **Collaborate on solutions**

Work collaboratively to develop potential draft guidance and application instructions

# Public comment period in case

docket followed by Commission order adopting application instructions and guidance

March

April-May

June

Summer

11/29/24

Solicit input

What questions and issues should the Commission address prior to the effective date?

# **File Staff proposal** File Staff proposed

application instructions and guidance in docket June, 21, 2024

## **Implementation** The effective date of the

new law is 11/29/24.

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# mationalgrid renewables





✓ Introduction to National Grid Renewables and Amber Miller

- ✓ Development Siting Process
- Permitting Process with PSCW
  - ✓ Apple River Solar, LLC
  - ✓ **Docket** <u>9808-CE-100</u>

 $\checkmark$ 



#### **Expertise as Top U.S. Renewable Energy Company**

- National Grid Renewables is a leading North American independent developer and operator of utility-scale renewable energy and battery storage projects
- National Grid Renewables includes the renewable energy development company formerly known as Geronimo Energy, whose team has successfully developed over 2,800 megawatts (MW) of wind and solar projects that are currently in operation or under construction
- We are experts in renewable energy project development, construction and operations
- The robust National Grid Renewables pipeline stretches across the United States, including projects in advanced development phases



### **Development – Siting Process**



- Proximity to existing electrical infrastructure and available injection capacity
- Willing landowner(s)
- Compelling solar resource
- Large, flat parcels of land, preferably contiguous
- Environmental considerations and constraints
- Marketability to power purchasers



### **Apple River Solar Details**



- Operational capacity: up to 100 MW
- Location: Polk County, Wisconsin
   Towns of Beaver, Apple River, Lincoln and Clayton
- Interconnection: MISO
- Expected COD: December 31, 2025
- Requires construction of a new 138kV substation and a 739' new 161kV electric transmission line ("gen-tie line")
- Permitting Process completed with WPSC
- **Docket** <u>9808-CE-100</u>



### **Apple River Application Process**



- Application was prepared in compliance with PSCW's Application Filing Requirements ("AFR")
- Engineering Plan filed 60 days prior to application filing (July 2020)
- Public Information Meeting typically held in the community after the Engineering Plan is filed and before the Application is filed
- Application Filed end of October 2020.
- Proposed Project contains a Primary Facility Array and a 25% Alternate Facility Array as required by the AFR
- Expected COD: December 31, 2025
- Permitting Process completed with PSCW-Approved Oct. 15 2021.
- Any changes to the Plan as approved, will require a minor siting amendment



### **Pre-Application Studies**



- Cultural Resources (redacted)
- Wetland Delineation
- Threatened and Endangered Species (redacted)
- Phase I
- Glare Analysis
- Drainage(Erosion Control/stormwater)
- EMF Study

- PVSYST Model (redacted)
- Glare
- Hydrology
- Soils
- Sound Study
- Road Condition Report
- Decommissioning Plan
- Preliminary Geotech











#### Our projects bring long-term, positive economic impacts to individuals and businesses



 Estimated to be nearly 150+ temporary construction jobs and 3 full-time equivalent jobs during annual operation\*



- ✓ Revenue of ~\$10 million over 20 years based on Utility Shared Revenue payments
  - ✓ New income for local landowners and farmers
- ✓ Allows local farmers to keep farms within the family and return to farming at end of project life



✓ Increased local and state spending and approximately \$130 million in capital investment.

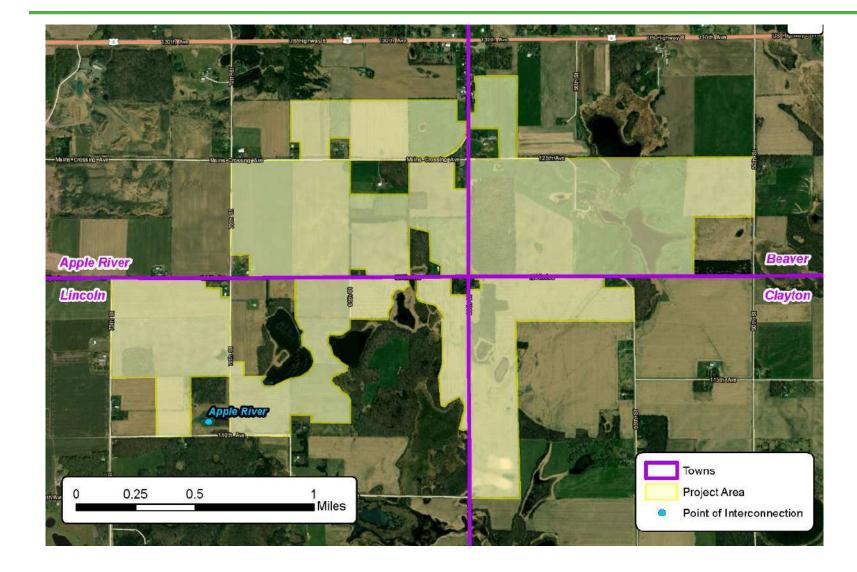


✓ Charitable Fund of \$250/MW (~\$25,000/year) donated to local non-profit to be allocated to various local needs

\*Calculations based on the current tax statutes and are subject to change.

### **Project Area – Overview Map**



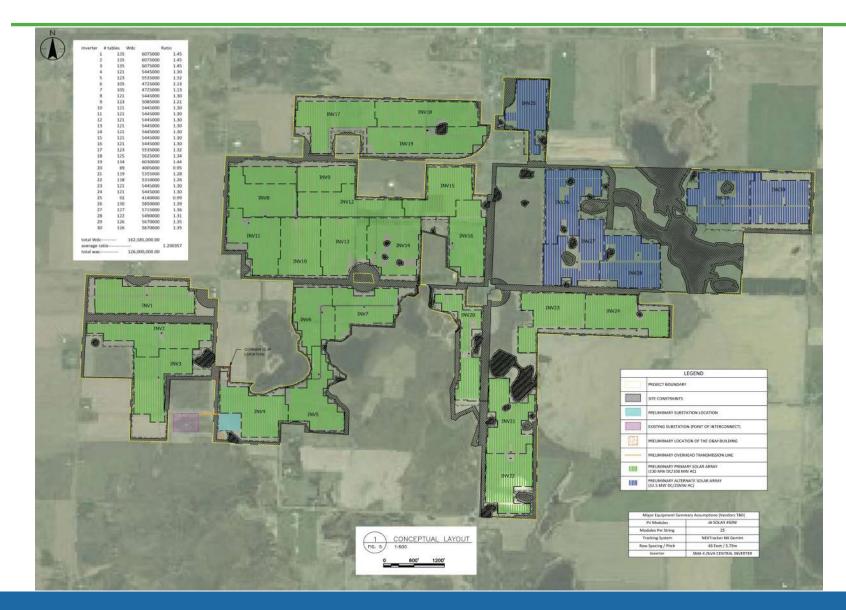


Land:

- Apple River Solar as proposed, was 890.9 acres
  - 703.8 Primary Array
  - 187.1 Alternate Array
- 40 Parcels of land
- 13 participating landowners
- Project which will be built is 695.46 acres
  - 606.8 Primary Array
  - 88.66 Alternate Array

### Project Area – Overview Map

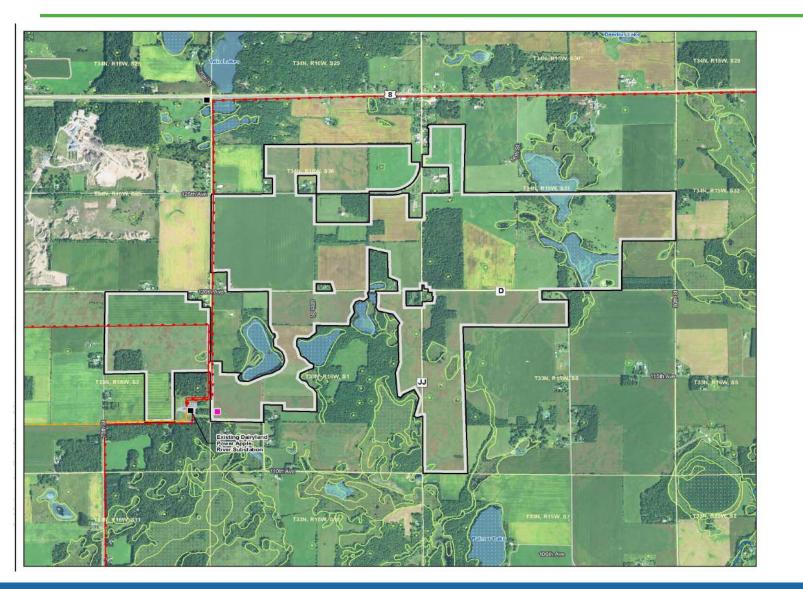


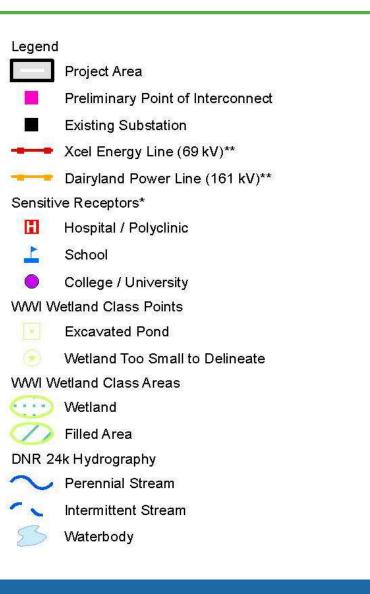


Land:

- Green: 703.8 Primary
   Array
- Blue: 187.1 Alternate
   Array

### Project Area – Water Resources & Existing Facilities

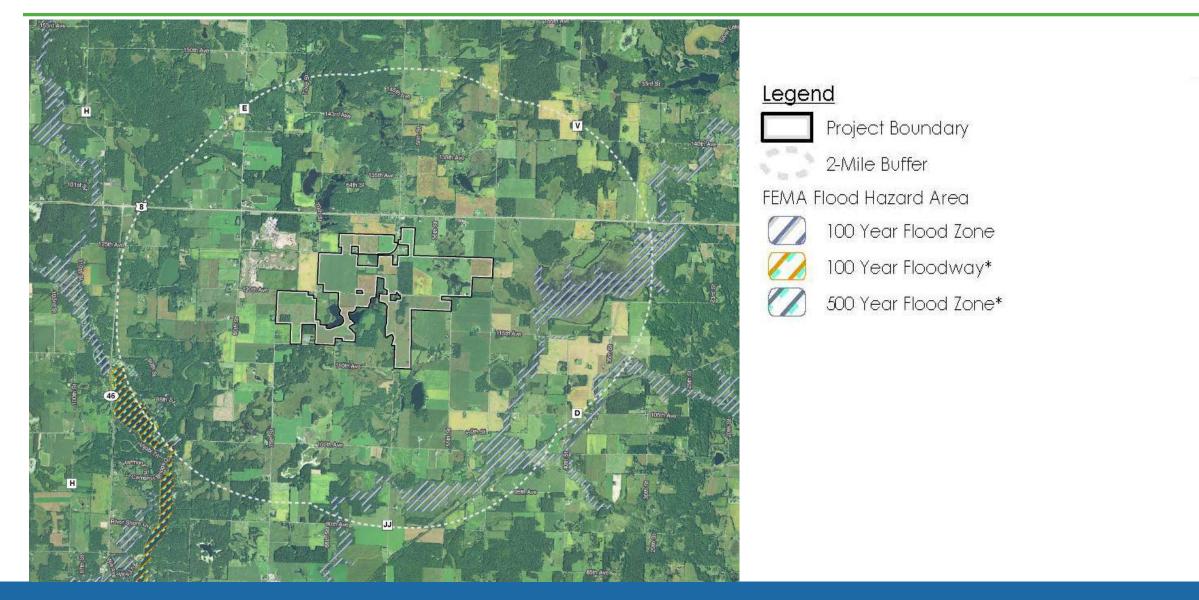




national**grid** renewables

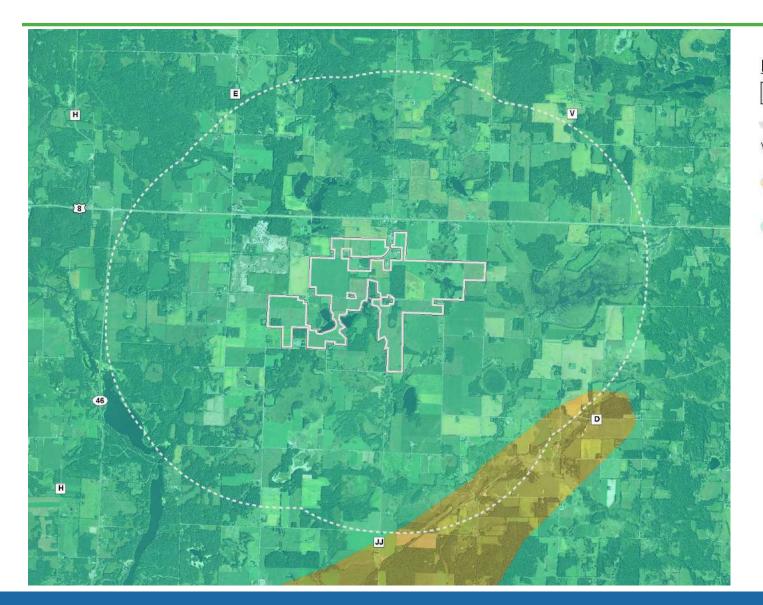
### Project Area – FEMA Flood Area





### Project Area – Land Cover





#### Legend

Project Boundary

2-Mile Buffer

WDNR Bedrock Dataset

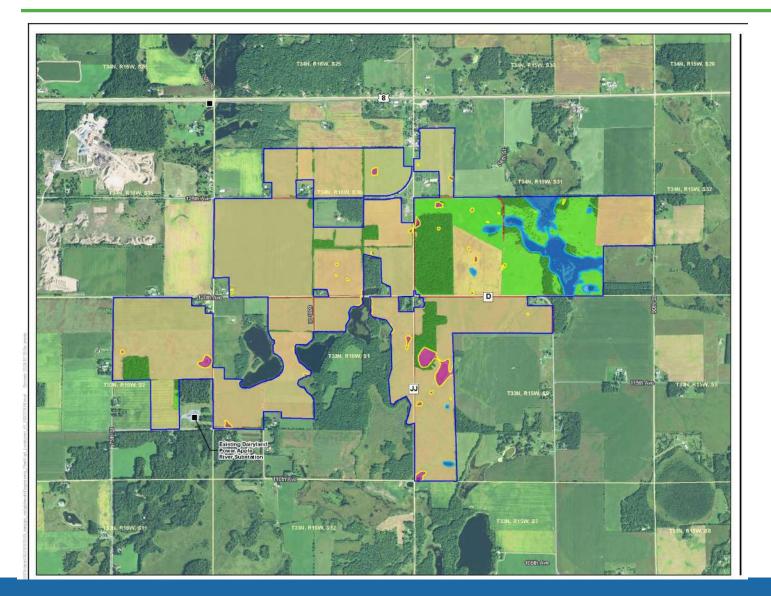


Bedrock is between 100 feet and 50 feet of the land surface

Bedrock is greater than 100 feet from the land surface

### Project Area – Land Cover

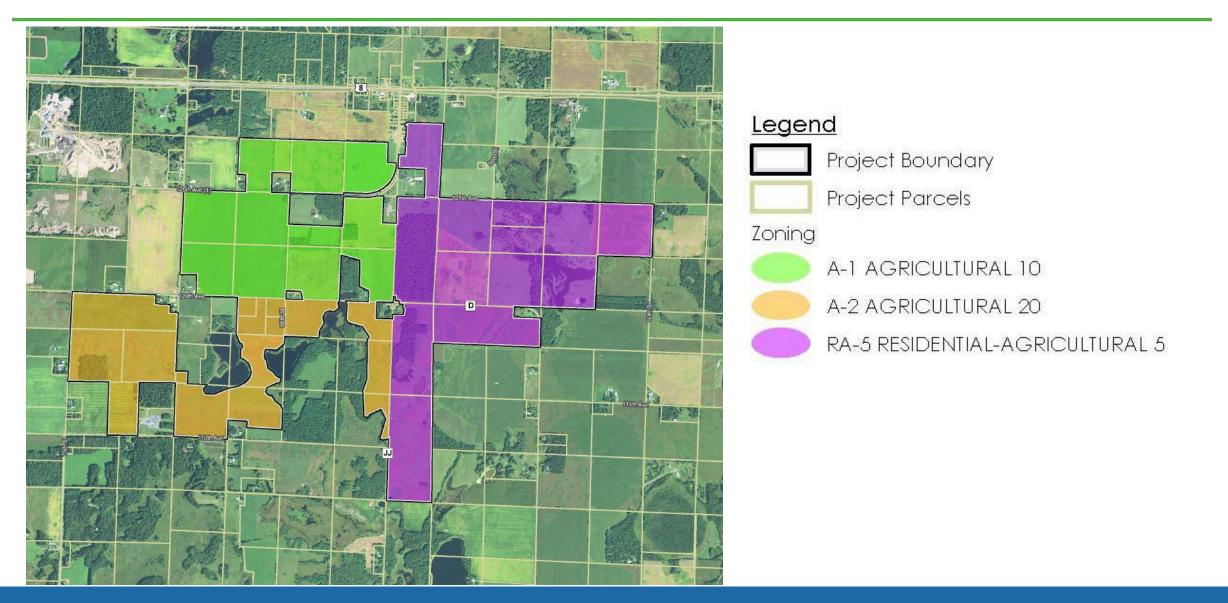






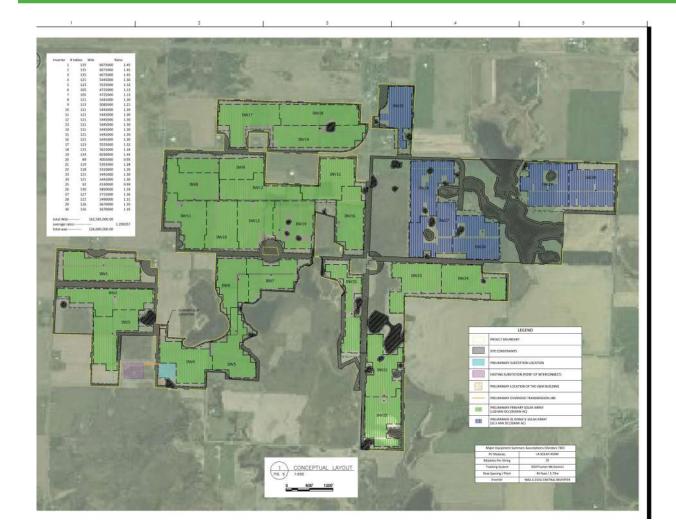
### Project Area – Zoning





### **Project Area – Setbacks**





Туре	Setback/Constraint	Setback
Structures	Non-participating inhabitable structures	100' from edge of foundation
Structures	Participating inhabitable structures	100' from edge of foundation
Structures	Non-participating inhabitable with waiver	Not less than 100', per waiver
Property Line	Side and rear yard	8' and 25'
Property Lines	Front yard	Varies depending on row classification
Existing Infrastructure	Overhead communication or electric utilities	No closer than 5' to the edge of easement area
Other	Project Fence	Permitted on rear and side lot property lines





- Pink Squares: Residential structure
- Yellow Circles: Inverter locations
- Red: Collection bores
- Gray: Access roads





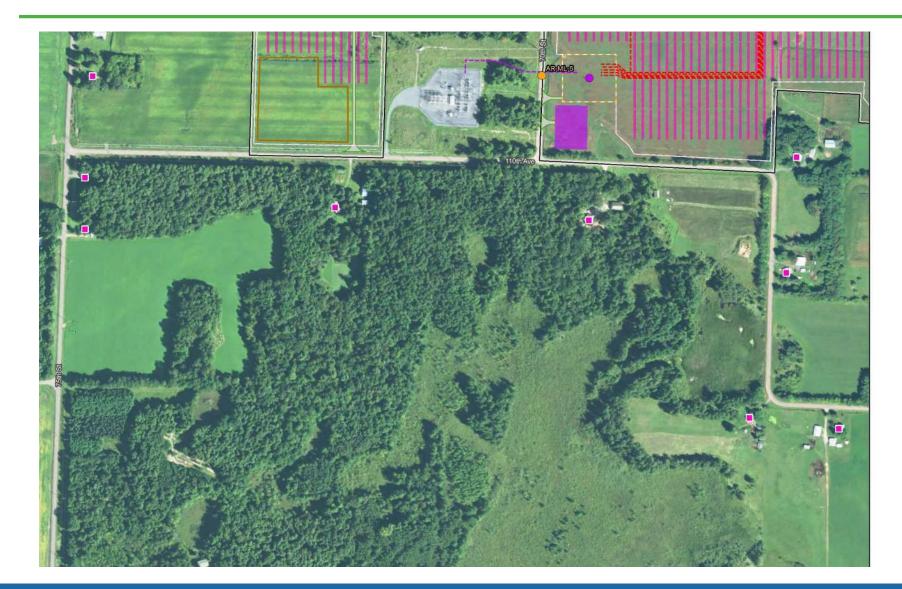
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- Pink Square: Residential structure
- Yellow Circle: Inverter locations
- Red: Collection bores
- Gray: Access roads
- Notice that wetlands and waterbodies are being avoided





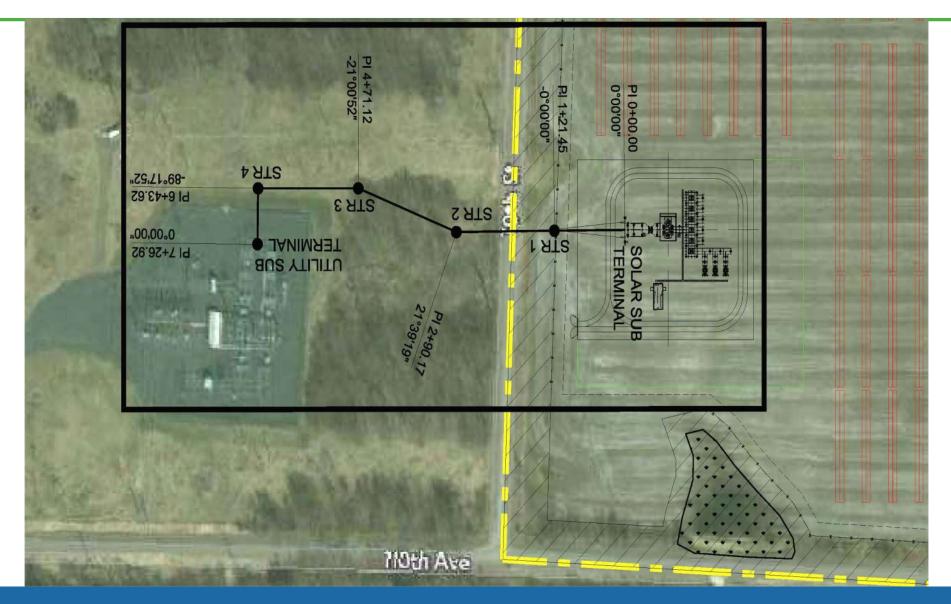
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- Gray: Access roads
- Purple: O & M building and Project Substation



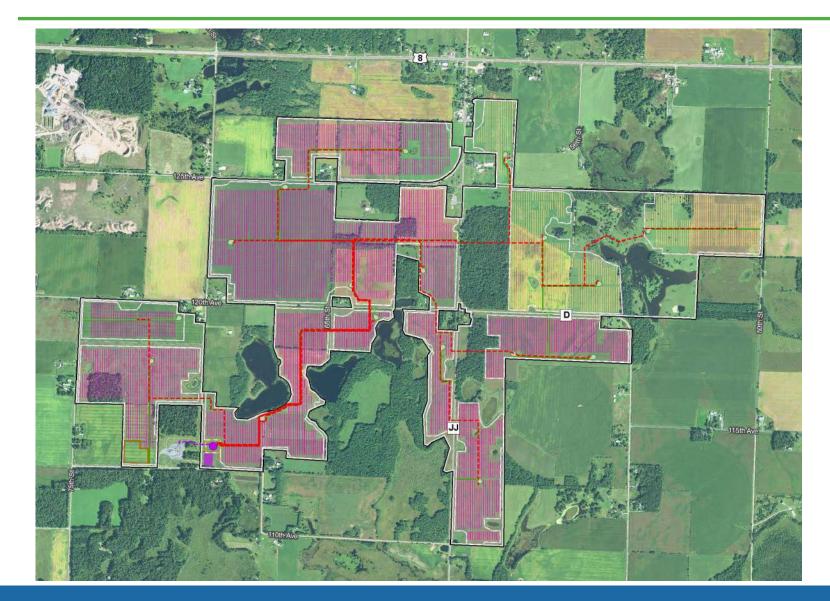


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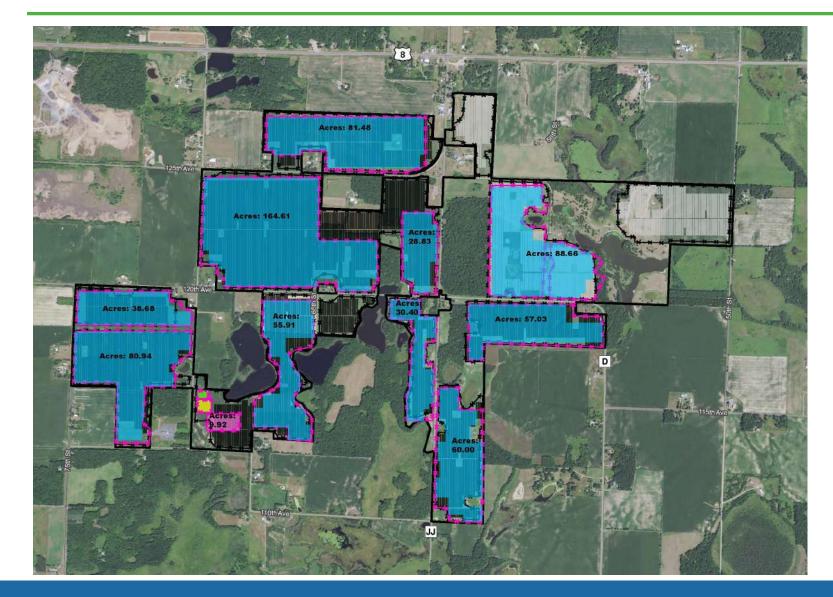




- Pink Square: Residential structure
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- Red: Collection
- Purple: O & M building and Project Substation

### Project Area – Minor Siting Amendment

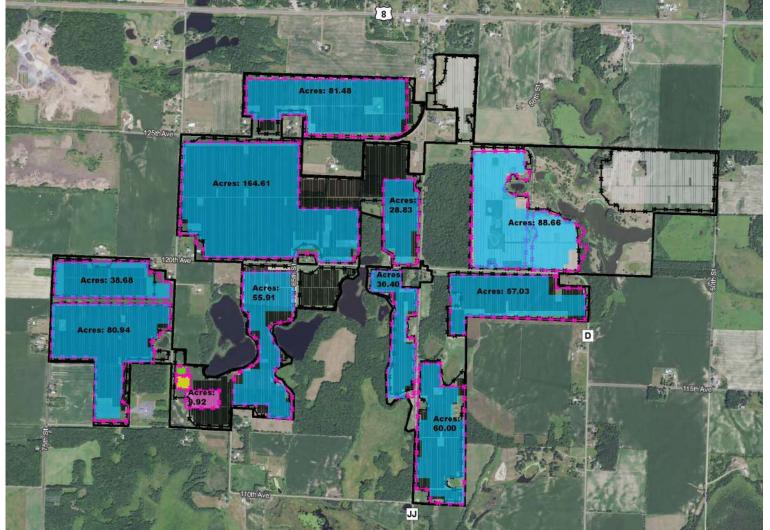




#### Apple River Solar Layout Comparison Client/Project 193707579 National Grid Renewables Apple River Solar Project Location T. of Apple River, Beaver, Prepared by JM on 2024-02-12 TR by XX on 2024-XX-XX IR by XX on 2024-XX-XX Clayton, & Lincoln, Polk Co., WI 1.500 Feet (At original document size of 11x17) 1:18,000 Legend **Project Boundary** Perimeter Fence - Current Perimeter Fence - CPCN ALL D Approximate Solar Area - Current Solar Tracker (Primary) - CPCN Solar Tracker (Alternate) - CPCN Substation - Current **BESS** - Current O&M Building - Current

### **Project Area – Minor Siting Amendment**





Process:

- What changed?
  - Using 88.66 acres in the Alternate Array
  - Not using 97 acres of the Primary Array
  - Footprint went from 890.9 acres to 695.46 acres
  - The project substation moved further north
  - The BESS was shifted 139' south and 143' east from where it was originally proposed
  - Equipment Finalized



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Amber Miller Permitting Manager amiller@nationalgridrenewables.com 331.215.3406

# Solar and Battery Storage Siting Site Plans

NERGY

# April 2024



### **THE SAVION STORY**

Savion, a Shell Group portfolio company operating on a stand-alone basis, is an industry-leading solar and energy storage organization built on a foundation of specialized experience and mastery in the craft of development.

With a growing portfolio of more than 41.5 GW, Savion is currently one of the country's largest and most technologically advanced utility-scale solar and energy storage project development companies.

Savion's diverse team provides comprehensive services at each phase of renewable energy project development, from conception through construction. Savion is committed to helping decarbonize the energy grid by replacing electric power generation with renewable sources and delivering cost-competitive electricity to the marketplace.





### **Project Portfolio**



Solar and Energy Storage in Operation/Under Construction/Contracted

# 2,305 MW 18 Projects 8 States

Solar in Development

Energy Storage in Development

21,812 MW 98 Projects 30 States 17,346 MW 94 Projects 29 States

### **Application Requirements Comparison**



PSC Siting Application Requirements (225)	Hamilton Township SEUP Application Requirements	Sheridan Township LSES CUP Application Requirements
Name, address, and telephone number of applicant	N/A	Applicant's name and address in full
The planned date for the start of construction and expected duration of construction	N/A	N/A
Description of energy facility including a site plan	Letter describing the proposed use and the site plan	N/A
Description of the expected use of the energy facility	N/A	N/A
Expected public benefits of the energy facility	N/A	N/A
Expected direct impact of the energy facility on the environment and natural resources and how applicant intends to mitigate	Impact Study - Environmental Site Assessment	N/A
Effects of the energy facility on public health and safety	N/A	N/A
Description of the community where the energy facility will be located	N/A	N/A
Statement and reasonable evidence that the energy facility will not commence commercial operation until it complies with applicable state and federal environmental laws	N/A	N/A
Summary of community outreach and education efforts undertaken, including description of the public meetings and meetings with elected officials	N/A	N/A
Evidence of consultation, before submission with EGLE & other relevant state & federal agencies	Facility shall comply with applicable building codes and all applicable local, state, and Federal laws and regulations	N/A
Soil & economic survey report for the county where energy facility is located	N/A	N/A
Interconnection queue information	N/A	N/A
If proposed site is undeveloped land, a feasible alternative location description	N/A	N/A
Plan to minimize and mitigate any expected impact on signals, radars, radio, or weather and doppler radio	N/A	N/A

### **Application Requirements Comparison**



PSC Siting Application Requirements (225)	Hamilton Township SEUP Application Requirements	Sheridan Township LSES CUP Application Requirements
Stormwater assessment and plan to minimize, mitigate, and repair any drainage impacts	Construct storm water controls to minimize stormwater impacts on other property and resources to extent practicable and shall comply with all county, state and federal regulations	N/A
Fire response plan and emergency response plan	N/A	N/A
Decommissioning plan - ensures the return of all participating properties to a useful condition similar to that which existed before construction, including removal of above-surface facilities and infrastructure that have no ongoing purpose. Shall include financial assurance in an amount not less than the estimate cost of decommissioning after deducting salvage values as calculated and posted in increments: i) 25% by the start of full commercial operation, ii) 50% by the start of th fifth year of commercial operation, iii) 100% by the start of the tenth year of commercial operation	Decommissioning plan - shall have 12 months to complete decommissioning, including removal of above ground and any buried less than 36" below, restore site to condition reasonably similar, substation or interconnection point used for utility purposes after the end of life or access roads the landowner requests to remain do not require decommissioning. Financial security shall be equal to the estimated cost, less the estimated salvage value, plus an additional \$250,000.00 prior to commencement of commercial operation, reviewed every 5 years after commercial operation.	Decommissioning Plan - all structures, concrete, piping, facilities, and other project related materials above grade and any structures up to forty-two (42) inches below-grade shall be removed offsite for disposal. Any Solar Array or combination of Photovoltaic Devices that is not operated for a continuous period of twelve (12) months shall be considered abandoned and shall be removed under the Decommissioning Plan. The ground must be restored to its original topography within three hundred sixty-five (365) days of abandonment or decommissioning. Restoration shall also include bringing soil to its pre-development composition to ensure agricultural use upon restoration. Soil tests shall be required as a part of the Decommissioning Plan both before development and prior to decommissioning. Soil shall be brought back to pre- development state within three hundred sixty-five (365) days of abandonment or decommissioning.
Other info reasonably required by commission	Other information required by the board or commission	Additional detail(s) and information as required by the Conditional Use requirements of the Sheridan Township Zoning Ordinance, or as required by the Planning Commission.
N/A	NESC requirements pertaining to security fencing, warning signs and signage identifying the name and contact number for the operator of the facility	Construction of a Large Solar Energy System shall comply with the National Electric Safety Code and the County Building Code (as shown by approval by the County) as a condition of any Conditional Use under this section. In the event of a conflict between the County Building Code and National Electric Safety Code (NESC), the NESC shall prevail.
N/A	Access roads entrance points on public roads will meet all requirements and shall be paved or graveled in a manner sufficient to provide a solid base at all times and capable of handling fire department trucks with adequate width	Applicant shall submit to the appropriate County agency a description of the routes to be used by construction and delivery vehicles; any road improvements that will be necessary to accommodate construction vehicles, equipment or other deliveries. The Applicant shall abide by all County requirements regarding the use and/or repair of County roads

# **Application Requirements Comparison**



PSC Siting Application Requirements (225)	Hamilton Township SEUP Application Requirements	Sheridan Township LSES CUP Application Requirements	
N/A	Screening and buffering - LSEF located within 500' shall be screened and buffered by installed vegetative plantings where existing natural vegetation does not provide screening, subject to the following: the intent is to limit visibility, composed of native or evergreen trees minimum of 6' in height and shrubs 3' in height. Evergreens spaced no more than 15' on center, native trees no more than 30', and shrubs no more than 7', all unhealthy or dead shall be replaced within a year	Landscape plan showing the existing and proposed location of all plant materials and the types thereof, access drives and parking lot layout. The perimeter of Large Solar Energy Systems shall also be screened and buffered by installed evergreen or native vegetative plantings whenever existing natural vegetation does not otherwise reasonably obscure the Large Solar Energy System from adjacent residential structures.	
N/A	Road Repairs: LSEF owner is responsible for making repairs to any public roads, drains and infrastructure damaged by construction. A pre and post-construction survey shall be completed to determine damage	Any material damages to a public road located within the Township resulting from the construction, maintenance or operation of a Large Solar Energy System shall be repaired at the Applicant's expense.	
N/A	All gates to LSEF and access doors to electrical equipment shall be lockable and kept secure at all times	N/A	
N/A	Glare and Radiation Impact report attesting to the glare and radiation impact on nearby properties and public roads	N/A	
N/A	Complaint Resolution: A detailed written complaint resolution process. The board shall be provided a monthly report during construction outlining the issues, the progress and the resolution of each complaint received	N/A	
N/A	N/A	A notarized statement that the applicant is the owner involved or is acting on the owner's behalf	
N/A	N/A	The address of the property involved, an accurate survey drawing of said property, showing the existing and proposed location of all buildings and structures and their uses and a statement and supporting data, exhibits, information and evidence regarding the required findings set forth in this Ordinance.	
N/A	N/A	Components of a Solar Array shall be approved by the Institute of Electrical and Electronics Engineers ("IEEE"), Solar Rating and Certification Corporation ("SRCC"), Electronic Testing Laboratories ("EIL"), or other similar certification organization if the similar certification organization is approved by the Township, which approval shall not be unreasonably withheld.	
N/A	N/A	Maintenance and Repair	
N/A	N/A	Inspection	



PSC Site Plan Requirements (224)	Hamilton Township Site Plan Requirements	Sheridan Township Site Plan Requirements	
location and a description of the energy facility	Name of development and general location sketch	N/A	
description of the anticipated effects of the energy facility on the environment, natural resources, solid waste disposal capacity, and records of consultation with state, tribal, and federal agencies	N/A	N/A	
additional information required by commission rule or order	Other information required by the board or commission	Additional detail(s) and information as required by the Conditional Use requirements of the Sheridan Township Zoning Ordinance, or as required by the Planning Commission.	
N/A	Name, address and phone number of owner(s), developer, engineer, architect and/or designer	It shall have the date prepared, and the name and address of the preparer, if other than the applicant.	
N/A	North arrow, scale, and date of original drawing and revisions	It shall show an appropriate description, legend, north arrow, scale, etc.	
N/A	The seal of one of the following professionals registered in the State of Michigan: Registered Architect, Registered Civil Engineer, Registered Landscape Architect, Registered Land Surveyor or Registered Professional Community Planner. The architectural plans of the buildings shall be prepared by and bear the seal of a Registered Architect A site plan for an alteration or addition to an existing structure may be prepared by the builder or contractor,	Applications for a Large Solar Energy Systems use must be accompanied by detailed site plans, drawn to scale and dimensione and certified by a registered engineer licensed in the State of Michigan, displaying the following information:	
N/A	A legal description and address of the property in question	It shall identify subject Property by all lot lines and dimensions and location, correlated with the legal description of said parcels of the Property.	
N/A	The area of the site in square feet and acres excluding all existing and proposed public rights-of-way	N/A	
N/A	The dimensions of all lots and subject properties, showing the relationship of the subject property to abutting properties, including lots across rights-of-way and easements. The boundaries of the subject property shall be clearly indicated on the site plan, differentiated from other contiguous property. If the parcel is a part of a larger parcel, boundaries of total land holding shall be indicated		
N/A	Existing topographic elevations, including ground elevations of all existing buildings, drives and/or parking lots, and any adjacent unusual surface conditions. Indicate direction of drainage flow	The site plan shall show the location and size of all existing utilities (public and private) serving the property as well as the location and size of all proposed utilities to serve the property. It shall be determined that all necessary utilities (public and private) will be available, functioning and usable at the time any stage of the project or the total project is ready for occupancy.	



PSC Site Plan Requirements (224)	Hamilton Township Site Plan Requirements	Sheridan Township Site Plan Requirements
N/A	The location and elevations of existing water courses and water bodies, including county drains and man-made surface drainage ways, floodplains, and wetlands	It shall show the topography, natural features such as wood lots, streams, rivers, lakes, drains and similar features.
N/A	Location and type of existing vegetation	N/A
N/A	Any significant site amenities and unique features	N/A
N/A	Existing land uses and zoning classification of the subject parcels an adjacent parcels	<sup>d</sup> N/A
N/A	All required minimum setbacks from the existing or proposed ROW and from adjacent lots	N/A
N/A	The location and dimensions (length, width, height) of all existing and proposed structures on the subject property	The site plan shall show the proposed location, use and size of open spaces and the location of any landscaping, fences or walls on the site. Any proposed alterations to the topography and other natural features shall be indicated.
N/A	The location and width of all existing public roads, rights-of-way or private easements of record, abutting streets, alleys, and driveway locations to abutting streets	The site plan shall show the proposed streets, driveways, sidewalks and other vehicular and pedestrian circulation features within and adjacent to the site; also the location, size and number of parking spaces in the off-street parking areas and the identification of service lanes, service parking and loading zones.
N/A	With residential proposals, a site summary indicating the number and location of one bedroom units, two bedroom units, etc., typical floor plans with the square feet on floor areas; density computation recreation facilities, open spaces, street names, and lot coverage	
N/A	With non-residential proposals, the number of offices, number of employees, the number of floors and typical floor plans and cross secti9ns,	Location and height of all proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing, and all above-ground structures and utilities associated with a Large Solar Energy System.
N/A	Proposed parking lots including layout and typical dimensions of parking spaces, number of spaces provided (including bow computed per ordinance requirements) and type of surfacing,	N/A
N/A	Location of and dimensions of proposed streets, drives, curb cuts, and access easements, as well as acceleration, deceleration and passing lanes (if any) serving the development,	Access driveways within and to the Large Solar Energy System, together with a detailed narrative regarding dimensions, composition, and maintenance of each proposed driveway. All access drives shall be subject to Calhoun County Road Commission approval and shall be planned so as to minimize the use of lands for that purpose.
N/A	Proposed traffic and pedestrian circulation patterns, both within the site and on the public streets adjacent to the site and the proposed location and dimensions of any required pedestrian sidewalks. Designate loading and unloading areas, barrier free access, any fire lanes, and carports,	e N/A



PSC Site Plan Requirements (224)	an Requirements (224) Hamilton Township Site Plan Requirements		
N/A	Proposed finish grade of buildings, driveways, walkways, and parking lots,	The site plan shall show the proposed finished floor and grade line elevations and the height of all buildings and structures.	
N/A	Proposed type of building materials, roof design, projections, canopies and overhangs, roof-located mechanical equipment, such as: air conditioning, heating units and transformers that will be visible from the exterior,	N/A	
N/A	Proposed water service including any proposed tap ins, main extensions or extensions for adequate fire hydrant spacing, and/or considerations for extensions to loop other public water mains,	N/A	
N/A	tap-ins, pump stations, and lift stations,	N/A	
N/A	Proposed storm water management plan including design of sewers, outlets (enclosed or open ditches), and retention or detention ponds. Sufficient data regarding site run-off estimates and off-site drainage patterns shall be provided to permit review of feasibility and permanency of drainage detention and/or retention as well as the impact on local surface and groundwater. The plan shall indicate location and status of any floor drains in structures on the site. The point of discharge for all drains and pipes should be specified on the site plan. All storm water drainage must be kept on site,	s. N/A	
N/A	Locations of existing and proposed fire hydrants with reasonable access thereto for fire fighting, police and other emergency equipment,	N/A	
√A	Location of all other utilities on the site including but not limited to natural gas, electric, cable TV, telephone, and steam,.	Location of all existing and proposed overhead and underground electrical transmission or distribution lines within the Large Solar Energy System and within one hundred (100) feet of all exterior property lines of the Large Solar Energy System.	
I/A	Soil erosion and sedimentation · control measures,	N/A	
I/A	Detailed landscaping plan indicating location, types and sizes of material,	N/A	
N/A	All proposed screening and free standing architectural walls, including typical cross-sections and the height above ground on both sides,	N/A	
N/A	The dimensions and location of all signs, both wall signs and free- standing signs and of lighting structures and shielding,	N/A	
N/A	Location, size and specifications for screening of all trash receptacles and other solid waste disposal facilities,	N/A	
N/A	Location and specifications for any existing or proposed outdoor or below ground storage facilities as well as any screening or containment structures or clear zones required by government authorities,	N/A	



PSC Site Plan Requirements (224)	Hamilton Township Site Plan Requirements	Sheridan Township Site Plan Requirements
N/A	Easements for proposed public rights-of-way, utilities, access, shared access, and drainage,	N/A
N/A	Notation of any variances that have been or must be secured,	N/A
N/A	Notation of performance guarantees to be provided including amounts, types, and terms,	N/A
N/A	Statement that applicant will comply with State, Local and Federal laws, as applicable to the site or intended use,	N/A
N/A	Information and special data which may be critical to the adequate review of the proposed use and its impacts on the site or Township. Such data requirements may include traffic studies, mark.et analysis, environmental assessments (including inventory and impact data on flora, fauna, natural resources, hazardous materials, erosion control and pollution), demands on public facilities and services, impact on historical or cultural resources, displacement of people or other uses as a result of the proposed development, alterations of the character of the surrounding area, effect on the Township 1s tax base and adjacent property values, or other data which the Township may reasonably deem necessary for adequate review,	N/A
N/A	The size, location and description of any proposed interior or exterior areas or structures for storing, using, loading or unloading of hazardous substances. A listing of types and quantities of hazardous substances which will be used or stored on-site in quantities of ha7.ardous substances which will be used or stored on-site in quantities greater than 100 kilograms or 25 gallons per month,	N/A
N/A	Delineation of areas on the site which are known or suspected to be contaminated, together with a report on the status of the cleanup,	N/A
N/A	Plans depicting existing and proposed building elevations,	N/A
N/A	For developments that are of a scale to warrant phased development, the phasing of construction shall be indicated. A detailed site plan need be submitted only for that portion of the property for which a building permit will be applied for; a general site plan which clearly indicates the overall project intent may be submitted for the remainder of the site, and	N/A
N/A	Building elevations of the proposed structure(s) from each direction shall be shown.	N/A



PSC Site Plan Requirements (224)	Hamilton Township Site Plan Requirements	uirements Sheridan Township Site Plan Requirements		
N/A	N/A	It shall be a scale not greater than one (1) inch equals twenty (20) feet, nor smaller than one (1) inch equals two hundred (200) feet and of such accuracy that the Planning Commission can readily interpret the plan.		
N/A	N/A	The Planning Commission may require, in addition to a site plan, statements which address the environmental, economic, fiscal or social impact of a development's impact upon the systems or services of the community. It may also require the site plan be designed and prepared by a qualified land planner, registered professional architect, engineer or land surveyor. Such plan shall further include the name(s) and address of the property owner(s), developer(s) and designer(s).		
N/A	N/A	Provide information and address standards found in Section 14.21 Groundwater and Wellhead Protection Standards.		
N/A	N/A	Names of owners of each lot or parcel within Sheridan Townsh that is proposed to be within the Large Solar Energy System		
N/A	N/A	Vicinity map showing the location of all surrounding land uses.		
N/A	N/A	Horizontal and vertical (elevation) to scale drawings with dimensions that show the location of the proposed Solar Array(s), buildings, structures, electrical tie lines and transmission lines, security fencing and all above ground structures and utilities on the property.		

# Solar Setback Comparison



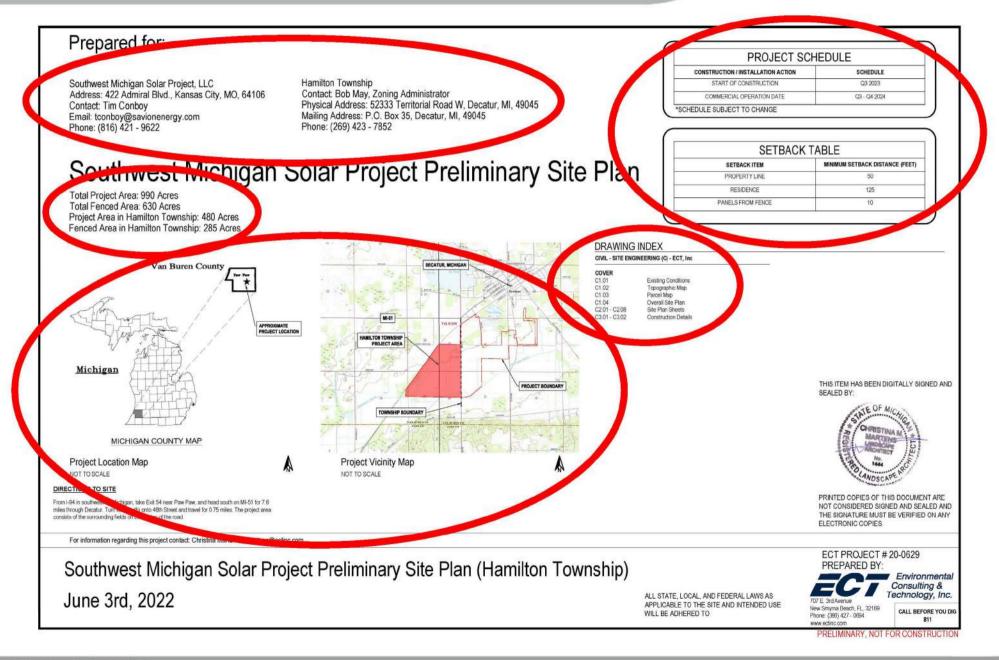
PSC Solar Setback Requirements (226)	Hamilton Township LSEF SEUP Requirements	Sheridan Township LSES CUP Requirements	
Minimum setback distances measured from the nearest edge of the perimeter fencing of the facility	Excludes fence in setbacks	N/A	
Occupied community buildings and dwellings on nonparticipating properties - 300' from the nearest point of the outer wall	LSEF facilities (excluding fencing) shall be located at least 125' from any residential dwelling, church, school, child day care, or bed and breakfast establishment existing and occupied at the time of submission, except those located on Participating Parcels or when the landowner has agreed in writing to a waiver of setback requirements		
Public road ROW - 50' measured from the nearest edge of a public ROW	Centerline of existing public roads and railroad ROW - 50' from all LSEF buildings and structures	Existing public roads and railroad ROW - 50' for buildings and solar arrays	
Nonparticipation parties - 50' measured from the nearest shared property line	All exterior property lines - 50' (excluding fencing and between Participating Parcels)	All exterior property lines - 50' for buildings and solar arrays	
Fencing complies with latest NESC	LSEF shall meet the requirements of the National Electric Safety Code (NESC), including, but not limited to, the requirements pertaining to security fencing, warning signs and signage identifying the name and contact number for the operator of the facility	Construction of a Large Solar Energy System shall comply with the National Electric Safety Code and the County Building Code (as shown by approval by the County) as a condition of any Conditional Use under this section. In the event of a conflict between the County Building Code and National Electric Safety Code (NESC), the NESC shall prevail	
Solar components do not exceed a maximum height of 25' above ground at full tilt	Solar panels shall not exceed 17' in height as measured from pre- existing grade	Maximum height of a Solar Array, other collection device, componer or buildings of the Large Solar Energy System, excluding substation and electrical transmission equipment, shall not exceed fifteen (15) feet (as measured from the natural grade at the base of improvements) at any time or location on the property. Substation and electrical transmission equipment shall not exceed one hundred (100) feet.	
Does not generate sound in excess of 55 average hourly decibels at the nearest outer wall on nonparticipating property	N/A	No component of any Large Solar Energy System shall emit noise exceeding sixty-five (65) dBA as measured at the exterior property boundary or the existing ROW line.	
Will implement dark sky-friendly lighting solutions	N/A	All lighting for parking lots, driveways, external illumination of buildings, or the illumination of signs shall be directed away from and be shielded from adjacent properties and shall be so arranged as to not adversely affect driver visibility on adjacent public roads.	
Any more stringent requirements adopted by the commission.	N/A		
N/A	Allowed in Agricultural, Industrial and Manufacturing Districts as a Special Exception Use Permit	Allowed in Agricultural, Medium Density Residential, Highway Service Commercial, Community Service Commercial, and Open Space Waterbody Conservation Districts	
N/A	LSEF structure shall be no closer than 10' to the LSEF fence	Completely enclosed by perimeter security fencing to restrict unauthorized access. Such fencing shall be at least six (6) feet in height with a one (1) foot extension arm consisting of a minimum of three strands of barbed-wire placed above the fencing and slanting outward as measured from the natural grade of the fencing perimeter. Electric fencing is not permitted.	
N/A	N/A	A Large Solar Energy System shall be located on one or more parcels with an aggregate area of ten (10) acres or greater	
N/A	N/A	N/A	

# **Storage Setback Comparison**

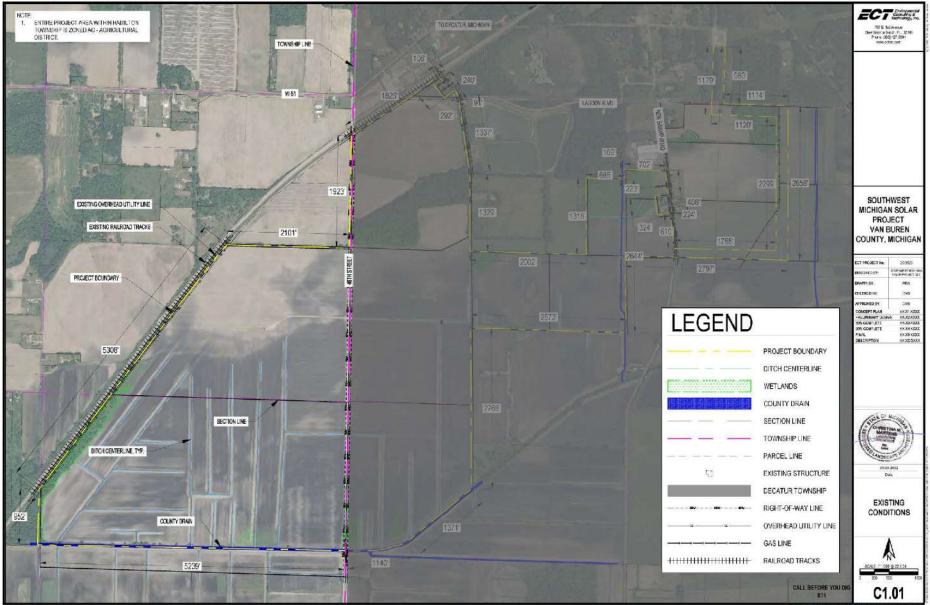


SC BESS Setback Requirements (226)	Hamilton Township LSEF SEUP Requirements (included as component of solar facility)	ncluded as Sheridan Township LSES CUP Requirements (included as component of solar facility)	
vlinimum setback distances measured from the nearest edge of the perimeter fencing of the facility	Excludes fence in setbacks	N/A	
Occupied community buildings and dwellings on nonparticipating properties - 300' from the nearest point of the outer wall	N/A		
Public road ROW - 50' measured from the nearest edge of a public ROW	Centerline of existing public roads and railroad ROW - 50' from all LSEF buildings and structures	N/A	
Nonparticipation parties - 50' measured from the nearest shared property line	All exterior property lines - 50' (excluding fencing and between Participating Parcels)	N/A	
inergy storage facility complies with the version of NFPA 855 Standard for the Installation of Stationary Energy Storage Systems n effect	N/A	N/A	
Does not generate sound in excess of 55 average hourly decibels at he nearest outer wall on nonparticipating property	N/A	N/A	
Nill implement dark sky-friendly lighting solutions	N/A	N/A	
Any more stringent requirements adopted by the commission.	N/A	N/A	
I/A	Allowed in Agricultural, Industrial and Manufacturing Districts as a Special Exception Use Permit	N/A	
N/A	LSEF structure shall be no closer than 10' to the LSEF fence	N/A	

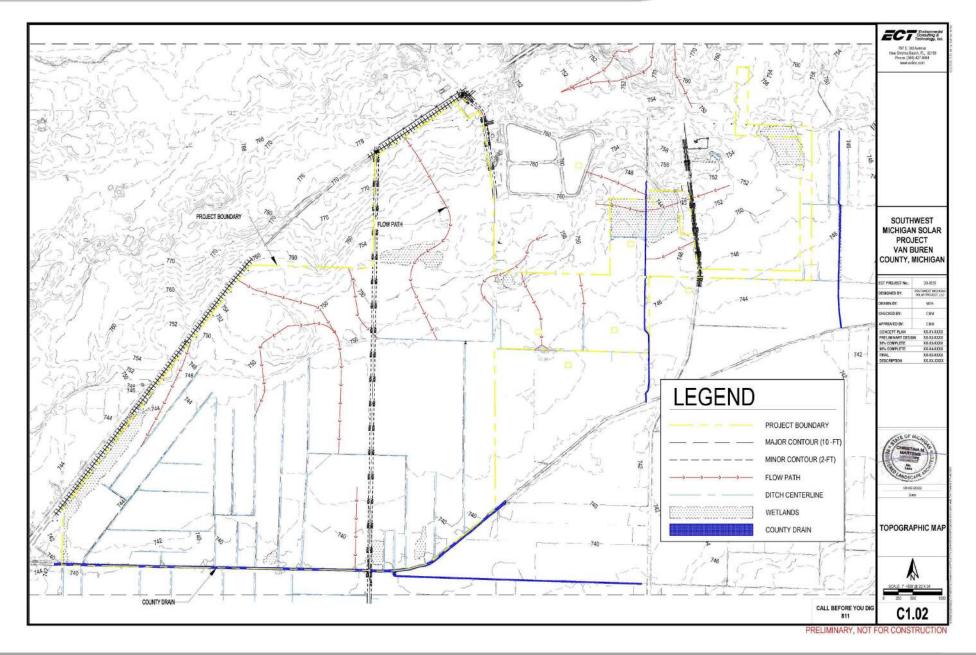




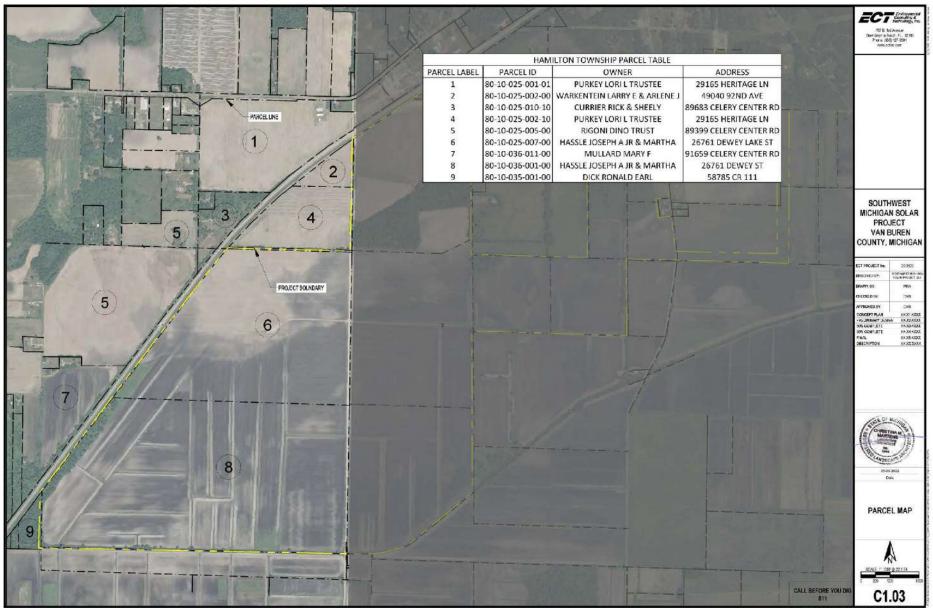




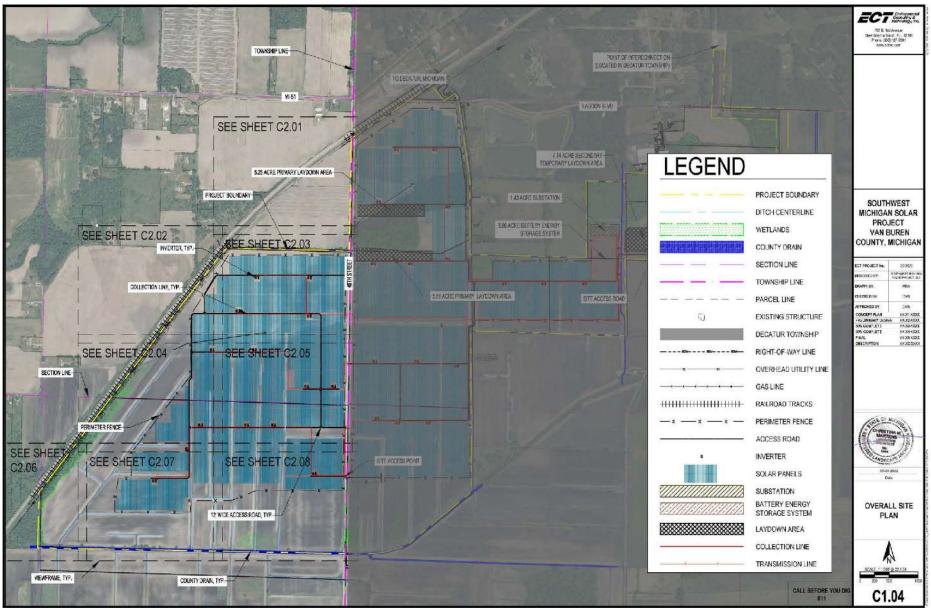




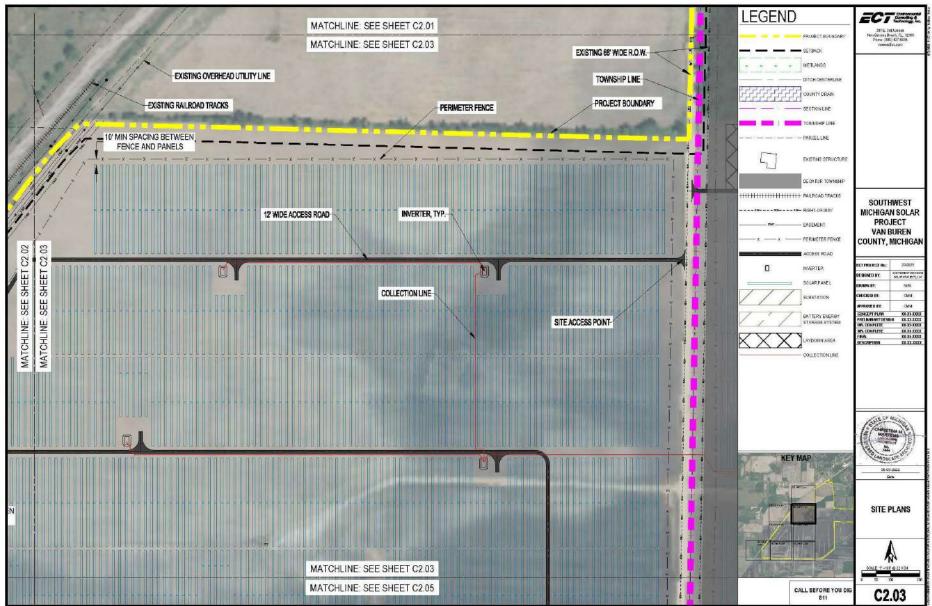




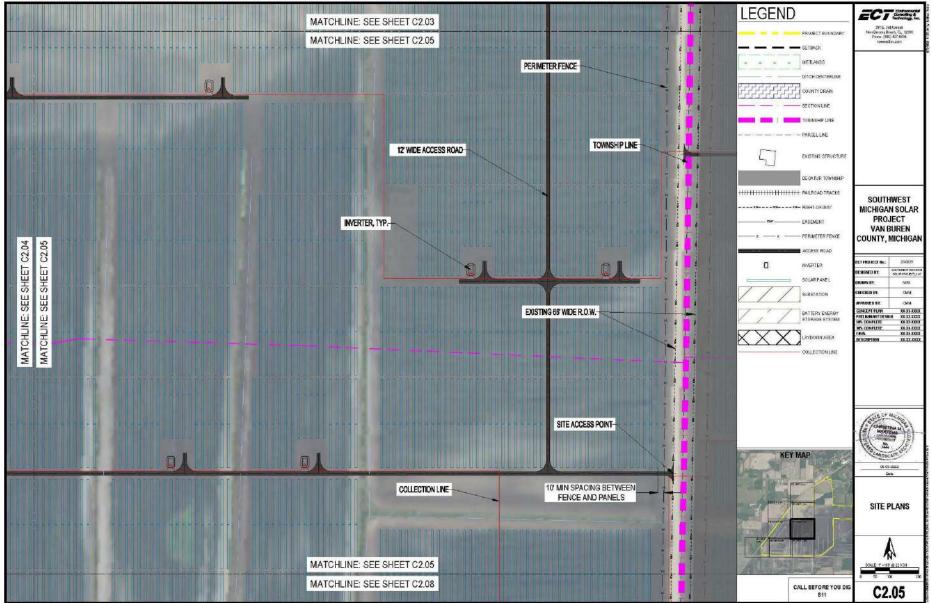




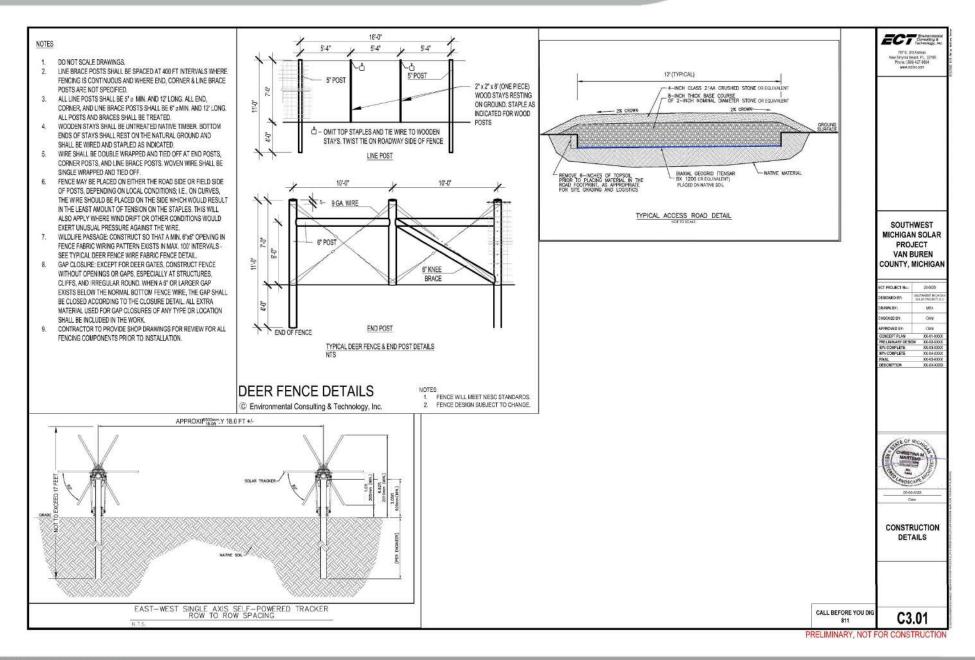




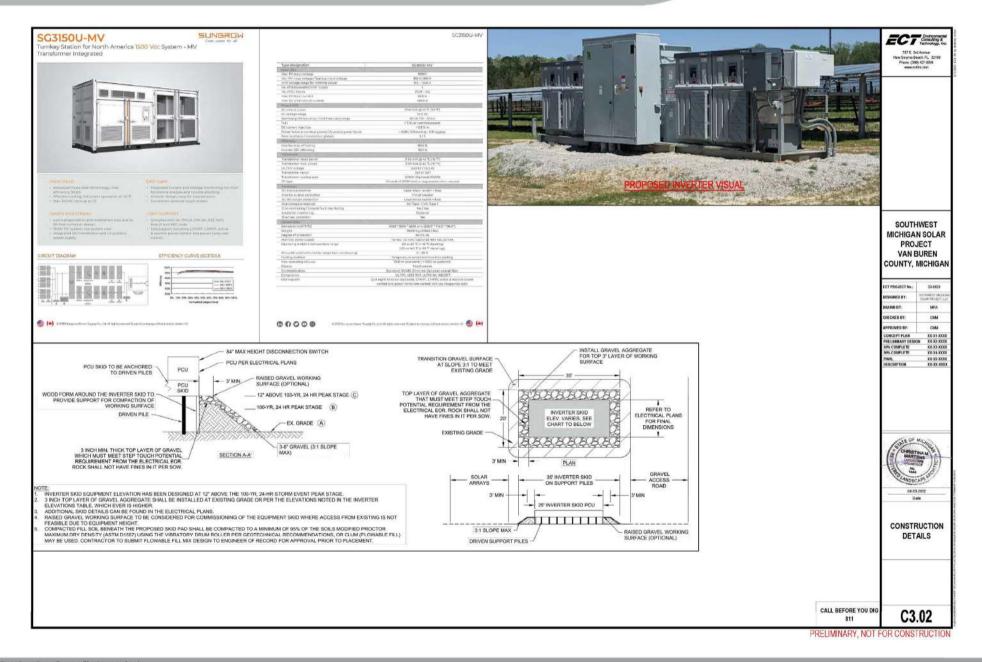












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#### PROJECT SCHEDULE CONSTRUCTION / INSTALLATION ACTION SCHEDULE Southwest Michigan Solar Project, LLC Decatur Township START OF CONSTRUCTION Address: 422 Admiral Blvd., Kansas City, MO, 64106 Contact: Tommy Simpson, Zoning Administrator COMMERCIAL OPERATION DATE Physical Address: 103 E. Delaware St., Decatur, MI, 49045 Contact: Tim Conboy SCHEDULE SUBJECT TO CHANGE Email: tconboy@savionenergy.com Mailing Address: P.O. Box 33, Decatur, MI, 49045 - 0033 Phone: (269) 423 - 8438 Phone: (816) 421 - 9622 SETBACK TABLE Southwest Michigan Solar Project Preliminary Site Plan Total Project Area: 990 Acres Total Fenced Area: 630 Acres Project Area in Decatur Township: 500 Acres Fenced Area in Decatur Township: 345 Acres DRAWING INDEX CIVIL - SITE ENGINEERING (C) - ECT, Inc DECATUR, MICHIGA Van Buren County COVER C1.01 C1.02 **Existing Conditions** Topographic Map C1.03 Parcel Map DECATUR TOW PROJECT AREA C1.04 Overall Site Plan C2.01 - C2.13 C3.01 - C3.04 Site Plan Sheets Construction Details L1.01 Overall Landscape Plan APPROXIMATE PROJECT LOCATION L1.02 L1.03 Landscape Buffer Plan Plant Schedule and Ordinance PROJECT BOUNDAR Michigan THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY: TOWNSHIP BOUNDARY MICHIGAN COUNTY MAP **Project Location Map** Project Vicinity Map NOT TO SCALE NOT TO SCALE DIRECTIONS TO SITE consists of the surrounding fields on both sides of the road For information regarding this project contact: Christina Martens, cmartens@ectinc.com Southwest Michigan Solar Project Preliminary Site Plan (Decatur Township) ALL STATE, LOCAL, AND FEDERAL LAWS AS June 3rd, 2022 707 E. 3rd Avenue APPLICABLE TO THE SITE AND INTENDED USE New Smyrna Beach, FL, 32169 WILL BE ADHERED TO Phone: (386) 427 - 0694 www.ectinc.com PRELIMINARY, NOT FOR CONSTRUCTION

#### Prepared for:

**Decatur Township Site Plan** 

From I-94 in southwestern Michigan, take Exit 54 near Paw Paw, and head south on MI-51 for 7.6 miles through Decatur. Turn left (south) onto 46th Street and travel for 0.75 miles. The project area



SETBACK ITEM	MINIMUM SETBACK DISTANCE (FEET)
PROPERTY LINE	50
RESIDENCE	125
PANELS FROM FENCE	10



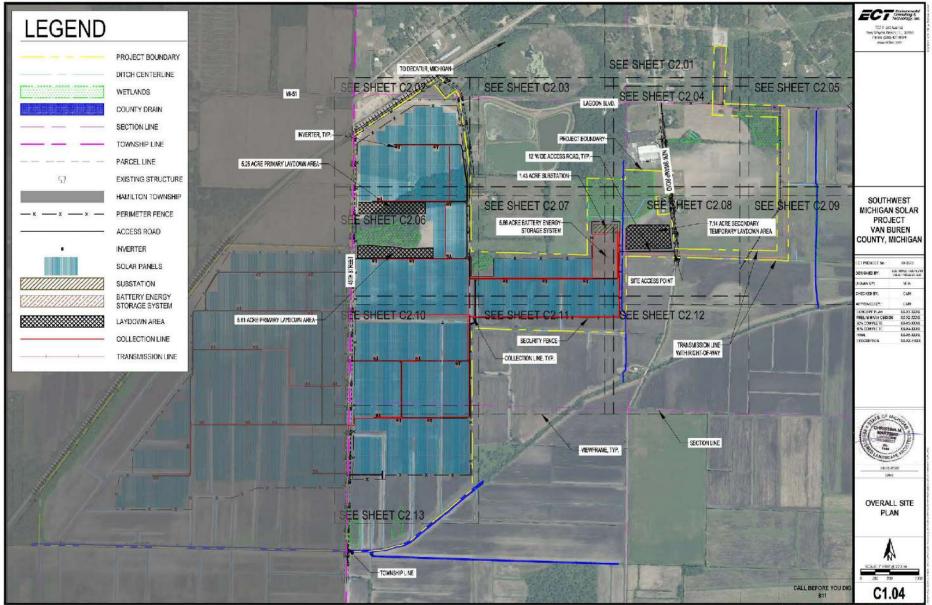


Technology, Inc.

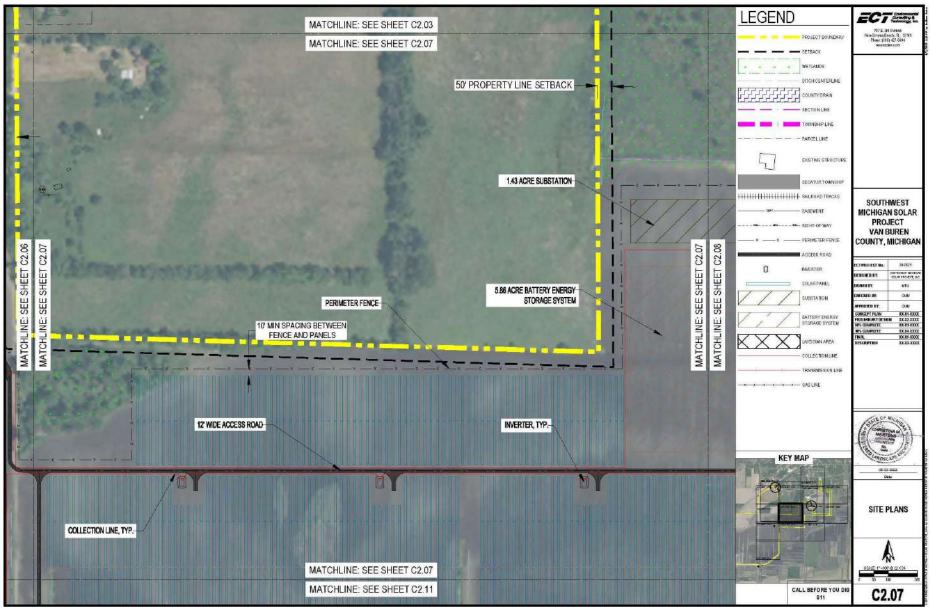
CALL BEFORE YOU DIG

811

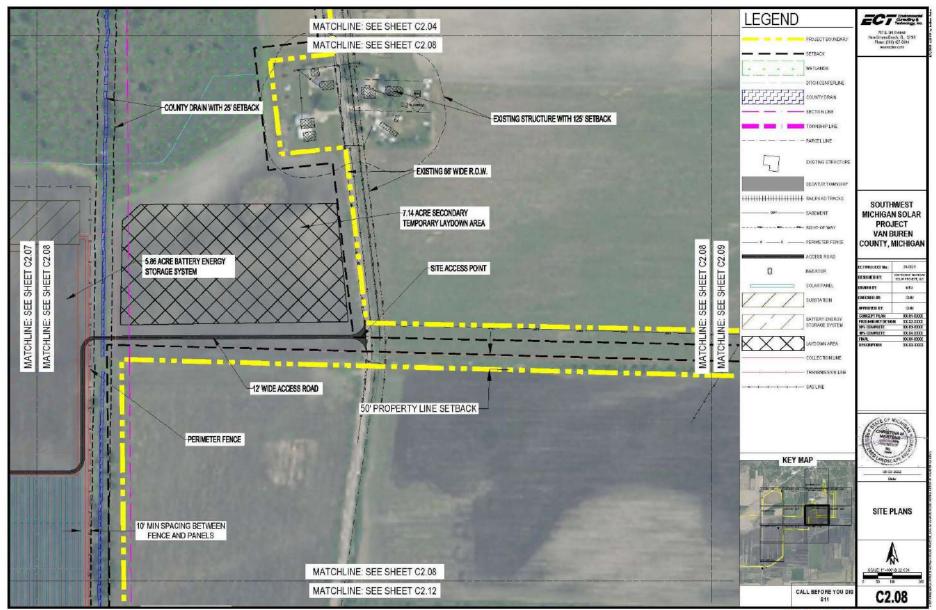




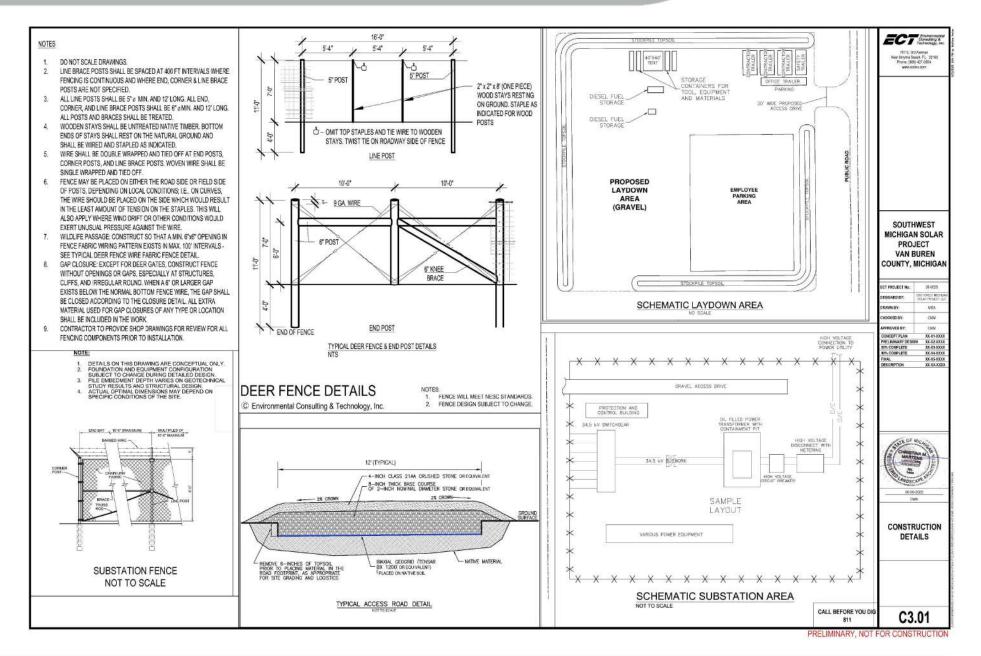






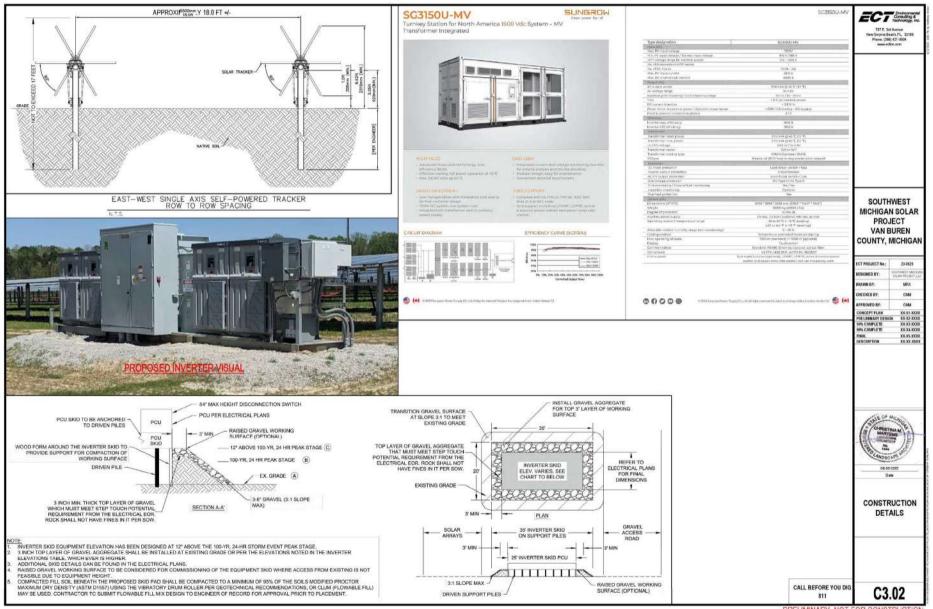




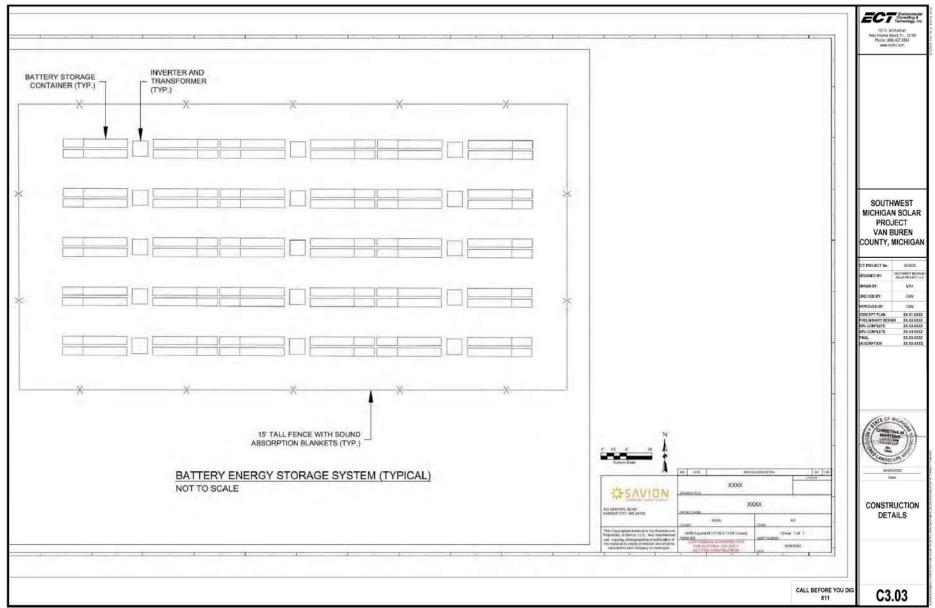


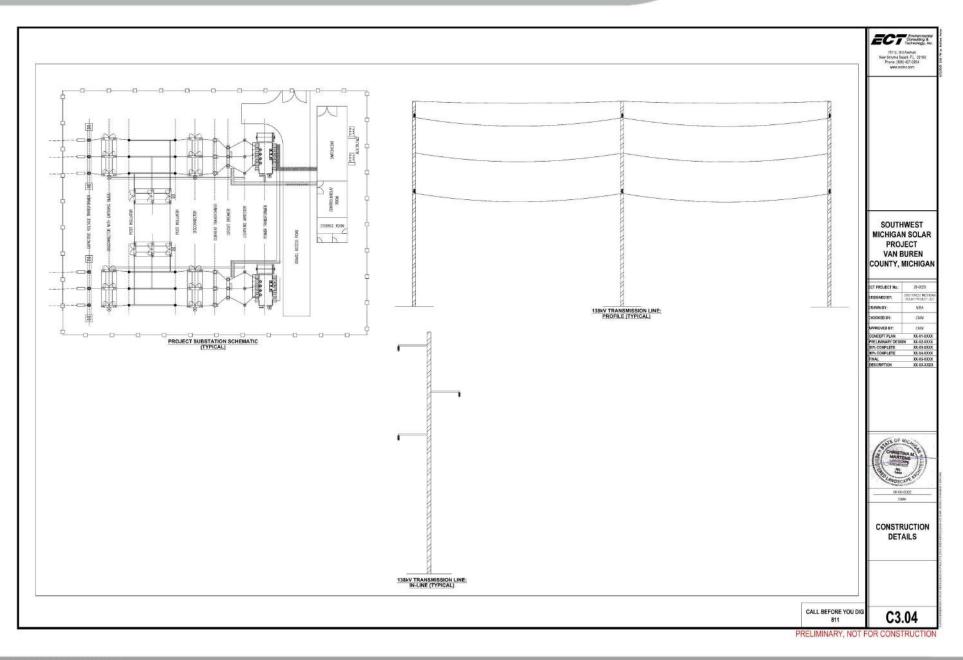
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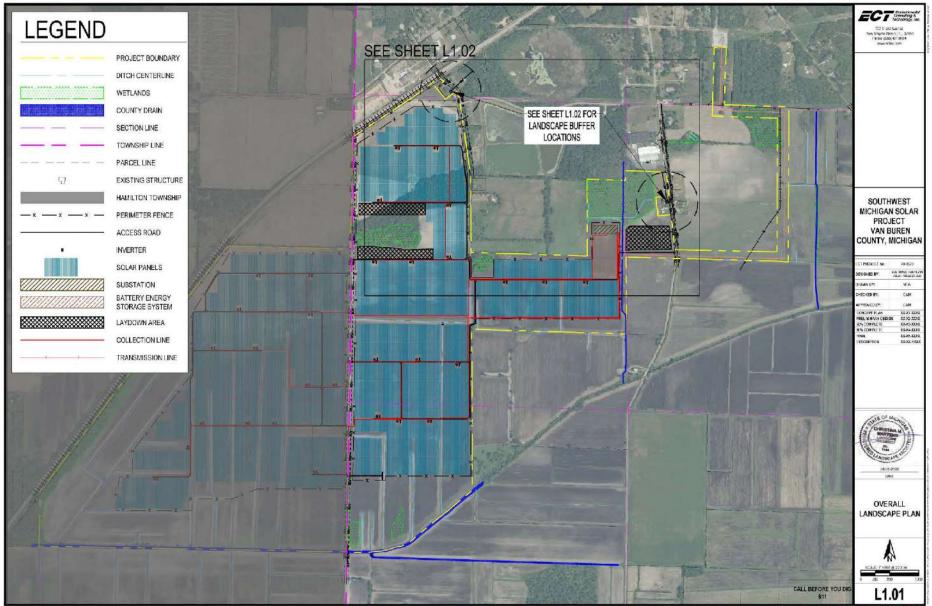




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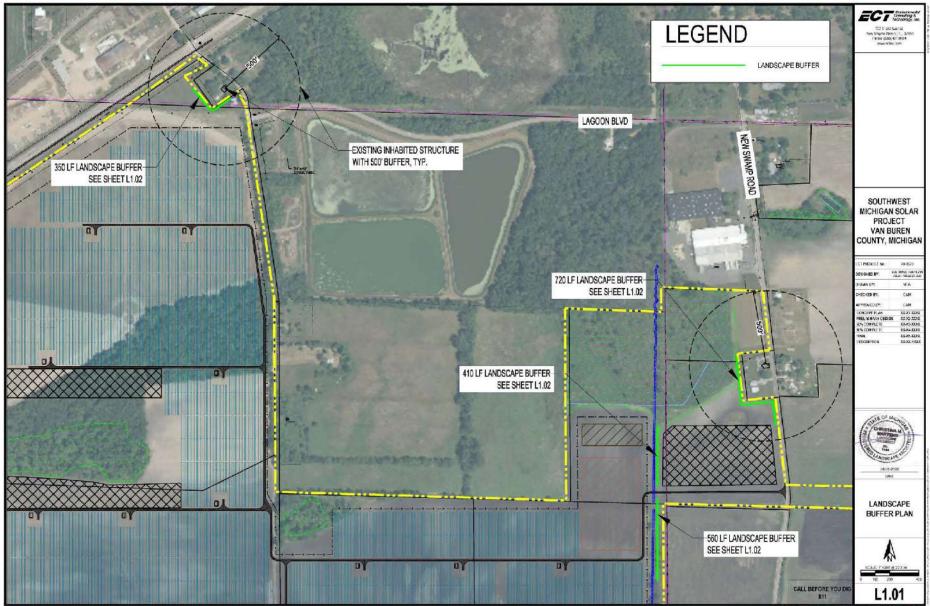
### **Decatur Township Landscape Plan**





### **Decatur Township Landscape Plan**





#### **Decatur Township Landscape Plan**



#### **Decatur Township Solar Ordinance**

1. Screening and Buffering. A LSEF (excluding fencing) that is located within 500 feet of any residential dwelling, church, school, child day care, or bed and breakfast establishments (excluding those located on Participating Parcels) shall be screened and buffered by installed vegetative plantings where existing natural vegetation does not provide screening, subject to the following requirements

a. The intent of the screening and buffering is to limit visibility of the LSEF from the residential dwelling, church, school, child day care, or bed and breakfast establishments with the understanding that some growth will be required reach this intent.

b. The vegetative buffer shall be composed of native or evergreen trees that at planting shall be a minimum of six (6) feet in height and shrubs three (3) feet in height. The evergreen trees shall be spaced no more than fifteen (15) feet apart on center, native trees shall be placed no more than thirty (30) feet apart on center and shrubs shall be spaced no more than seven (7) feet apart on center.

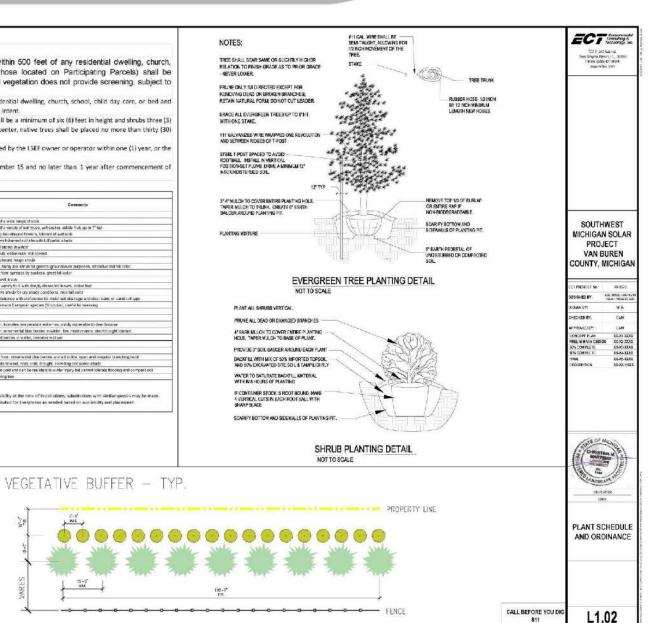
c. All unhealthy (sixty (60) percent dead or greater) and dead plant material shall be replaced by the LSEF owner or operator within one (1) year, or the next appropriate planting period, whichever occurs first.

d. Vegetative buffer plant material shall be initially installed between March 15 and November 15 and no later than 1 year after commencement of construction of the facility.

Plant List					
Scientific Name*	Common Name	Planking Specification	Average Growth Rate	Mature Size	Comments
Deciduous Shrubs					
Amenincher alboreb	Jaheberry	Grapottect, P.D.C.	Medium, 15/ligt	19-29(H) x 19-29(W)	Teleranticita wide range of solis
Aronia melanetarpu	Black Crekaterry	3' (pottach, 7' 0 C.	Stow, 1. DYM	71H( x 5/0V)	Tolorant of a variaty of acit types, will eacher, addite that, up to 7" tail
Cephalanthus accidents is	Eutoninum	ar (potters), P.D.C.	Modum, 1.5/yr	5-10(04) × 5 (VV)	Internative) boll-sheaped flowers, television of websiols
Corres fourning	Gray dispycoid	St (paties), 710.0.	Slow-Medium, 1.25/yr	10-12(10 x 10-12(W)	Reads a well-dramed sul site with full cartai is takin
Contex conset	Field Other Elegence	a epottora, 7.0 G	Fold, 2.0 /j#	7-96H( K 10(W)	Englit rediations in writer
Corylas amendaria	American Esbert	S' (pottect), P' D CI	Metham-Fast, 1./ht/fr	87-537(04) × 65(VV)	Lorge altrub, extremate will scread
Physician pus oper lielue	Noebark	S' pottech, 7' D.C.	Medium Past, 170%	40H3 × 01 (W)	Drought tolerant, lough strate
Finus ano ministra.	Grow-low-Elemon	S (potters), 7 D.G.	Slow Wedum, 1 26/br	FITTE X ST END	Esservient, herely level shrub for general graunecover parpoons, advoctive red fills antic
Rhus e opalina	Monon Shining Sumac	O (pottec), 7 0.C.	Fast, 2.0 Ar	6(H) x 67(W)	Compact form spreads by suckers: great fail color
Rusa eardina	Paska 2 Rose	3 gottesh 7 D.C.	Mediant: 1.5/yr	60H: x 0(0V)	Rose for wet a cos
Elemination connected as	Laceleat Elderberry	St gottech, P.D.C.	Fest 2.Dige	mp+() x 57 (W)	Compact variety to it with deeply deserved insvers, entitie that
Vitormum ac critolium	Maple-leaf Mourrum	3 (poffech, 7 D.C.	Slow-Medium, 1.25/yr	5(H) x 4' (W)	Good notive sheab for any sheaty conditions, nice fail color
Vibumum lantaga	Namybery	3' (patter), 7' 0.C.	Modium, 1.67yi	10-20'(H) x 5-12'(W)	Low mantenance with professioner for moist soil draitings and oldy, learn, or sand soil type
Silvanian Niebuni	American Crenterry Visaniam	3 (polled), 7 0 C	Mindian, 1.Sign	10(H) e 10(M)	Not the investor European species (Vopular), useful for massing
Evergreen Shrubs					
Thuse occidentate "Serverapit	Emerald Grees Arboniae	SV (pottec), P.O.C.	Silow, 1 (My)	12-157 (H) x # (W)	Everyment, boardes temperature extremes, mildy vulnerative to deer browne
Amperus communis	Common Juniper	3 quites), 7 D C	Stow, 1 Myr	17-18 (H) = 8-12 (W)	Evergreen, ornomental blue besten in wirder, kwi maintenancie, deet/climight (decard
Tex werks data	Control Willterberry	Of (poffect), 7" O.C.	Slow, † 5%er	8"(F0 x 8"(W)	Showy red berries in warter, tolerates wat sol
Evergreen Treas	16 month and the second	la contra contra de la contra de	And a second second	Service and the	
Autorius veramiana Canascia	Canaerta Eastarn Redcedar	FHI(BSB), 12 O.C.	Madean, 1.5 iyr	257(H) c 157(W)	Compact Yorn, ornamental Ukerberries and a backweyopen and megular branching habit
Pieco gitrara	White Spruce	6 HIT BARE 15 O.C.	Modum Foot 1781	407-007-(H) # 107-207 (W)	Can withstame wind, host, aptil, drought, arowiding and some shade
Pices manaria	Black Spruce	WHIGHER, 15' O.C.	Silow, 1. Offer	307-507 (H) x 151-257 (W)	Adapted to cold and can be resistant to winter many but cannot tolerate flooding and compact so
Pinus strotus	Eastern White Pine	W HT BEBL 15' D.C.	Fast, Z/et	50" 80" (H) x 20" 40" (W)	Fast growing tree

\* The plant species issed are representative of these that are to be installed. This is not considered to be all inclusive, due to availability at the time of installations, subsiduations with similar species may be made. Straight universes could be substituted for the collivers listed for cancey trees, be seen available ty. Cancey trees to uld also be substituted for thereiners as moded based on availability and placement The overall landscape plantings shall not contain more than 33 percent of any one (1) species.

13'-0" 444

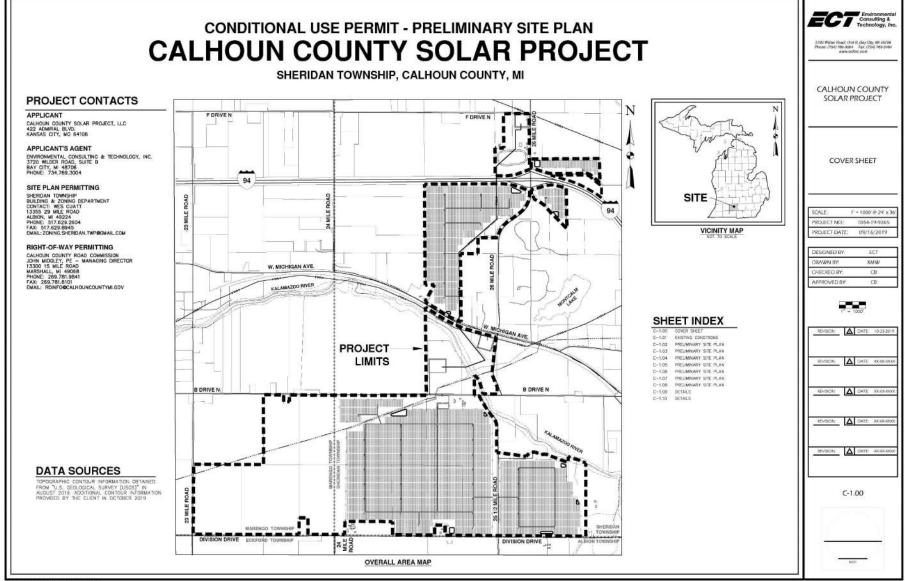


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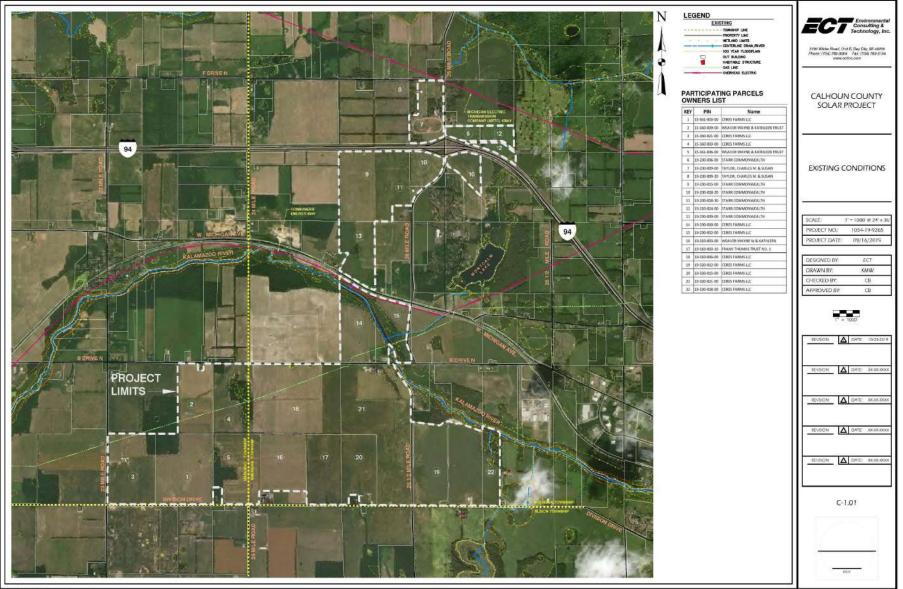
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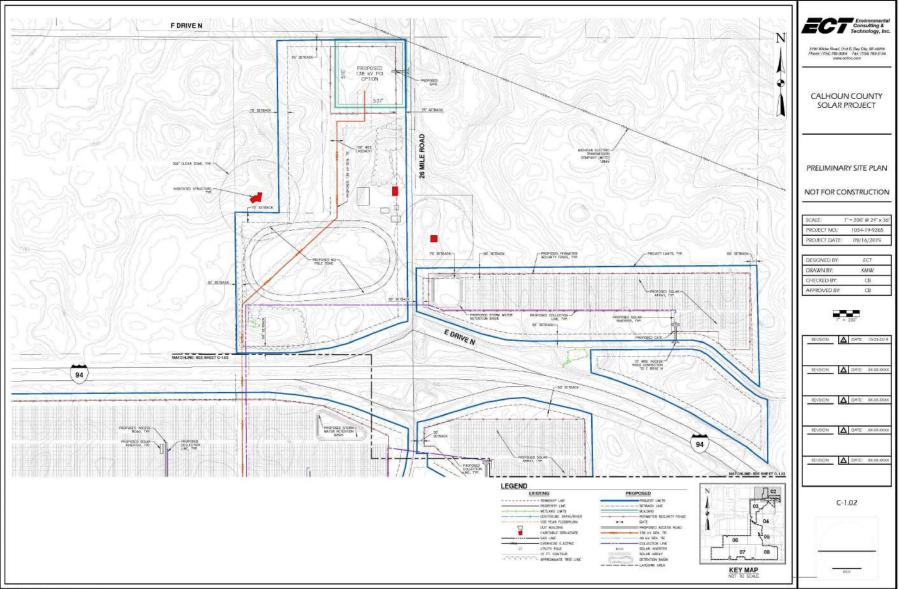
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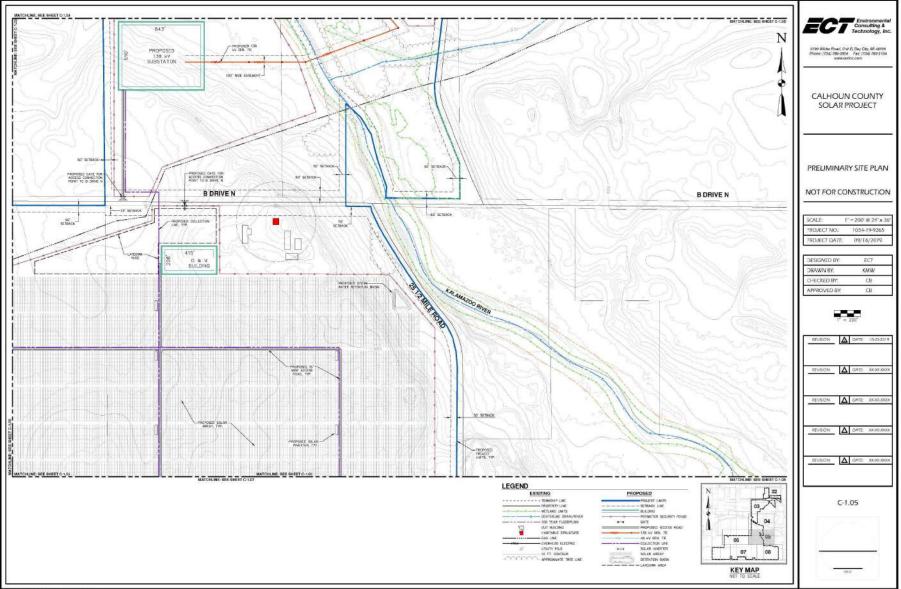


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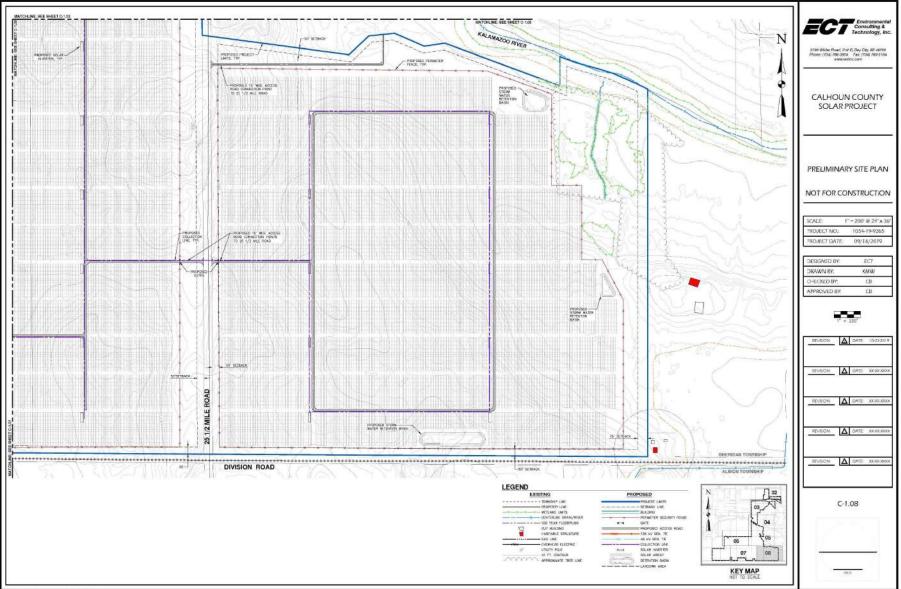




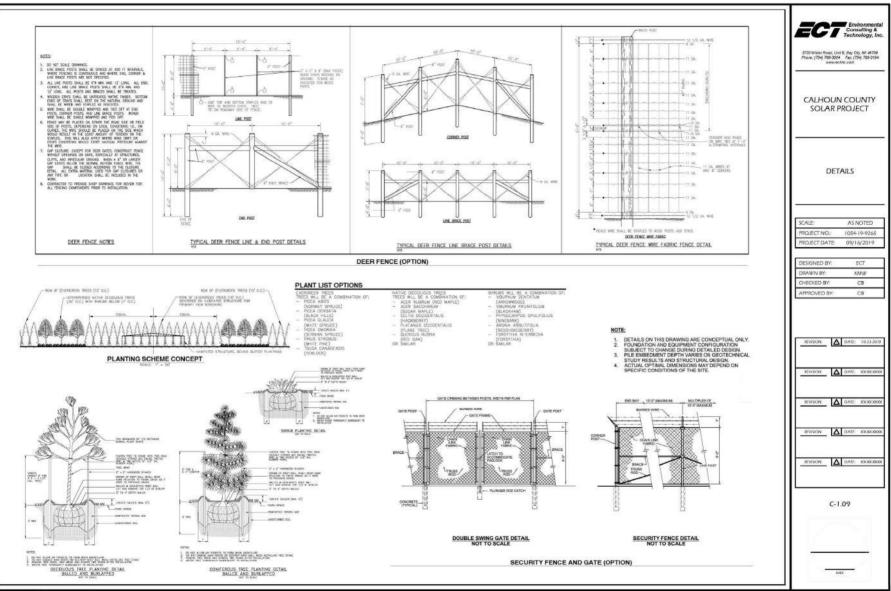


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 Dirith Coll. (10) FOLD BRITISM. SIMMA Drawing (Part TableTan Resolution Lifeting On 20, 2019) 13 Mars by Judian

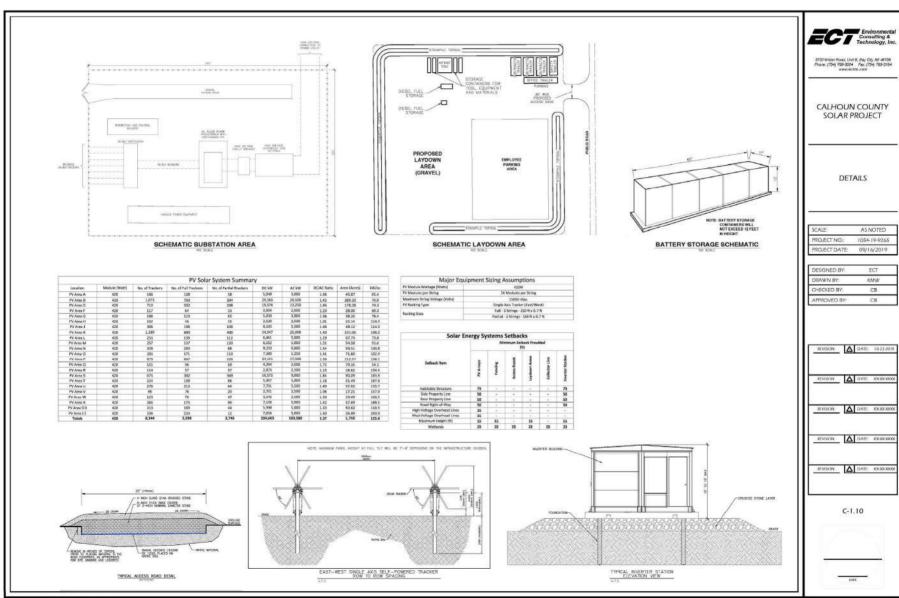


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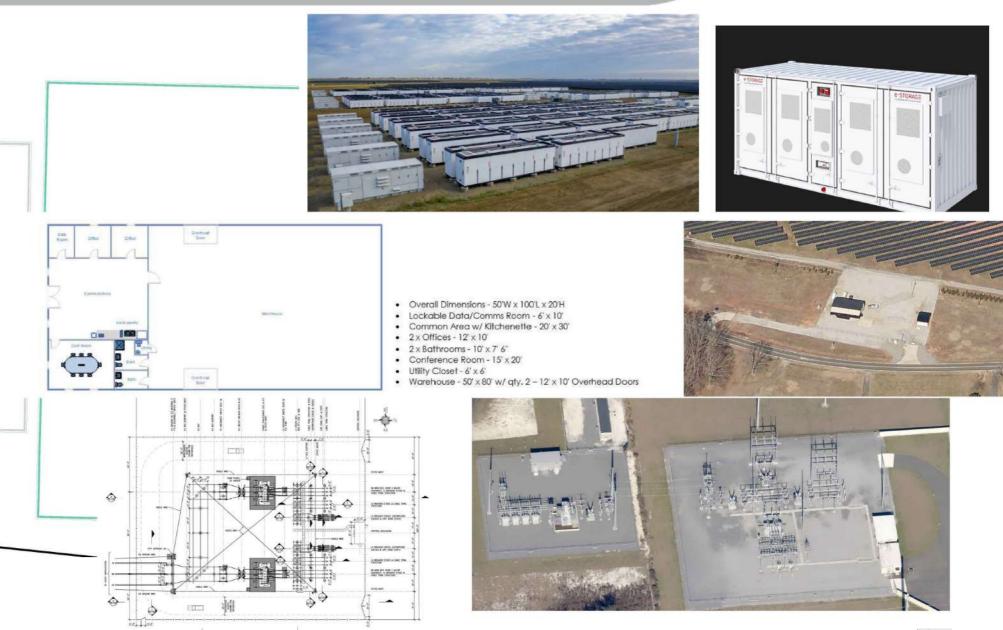


### Sheridan Township Site Plan



# **Energy Storage and Additional Details**









# Thank You

#### **Christina Martens**

Director of Permitting & Environmental Savion, LLC (816) 266-6384 cmartens@savionenergy.com

#### Barry Szczensy

State Policy Manager Savion, LLC (248) 606-0596 bszczesny@savionenergy.com

# World's Leading Privately Held Clean Energy Company



Wind 117 projects 18,676 megawatts



**Solar** 51 projects 6,469 megawatts



21 projects 1,817 megawatt hours 556 megawatts



**Offshore Wind** 

2 projects 4,000+ megawatts in development



**Natural Gas** 

13 projects 6,071 megawatts

#### Invenergy Services

We use our 20 years of operations and maintenance experience to help you make the most of your energy center. Whether it's day one or years later, we use our owner's mindset to manage our energy centers and on behalf of our customers.



#### **Transmission**

4 projects 4,100+ miles of transmission & collection lines developed



#### **Clean Hydrogen**

1 pilot project in construction 40 metric tons will be produced annually



#### **Clean Water**

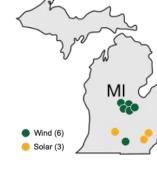
9 water treatment facilities used at our project sites18 million gallons per day of raw water capacity





## Invenergy in Michigan

9 Projects | 1,408 Megawatts









**3 solar projects** totaling 500 megawatts

 $\bigcirc$ 

**379,000 American homes** powered through electricity generated

**12 full-time** operations & main

operations & maintenance employees

 $\bigcirc$ 

#### 5 Michigan counties

including Calhoun, Gratiot, Hillsdale, Washtenaw and Lenawee Counties



**\$1.5 million** invested annually in local taxes



**\$5.3 million** in annual land and lease payments **\$750,000** paid in annual wages and benefits Ś

#### Annual donations

to local education, emergency & veteran services, and environmental stewardship

# Invenergy Wind Experience

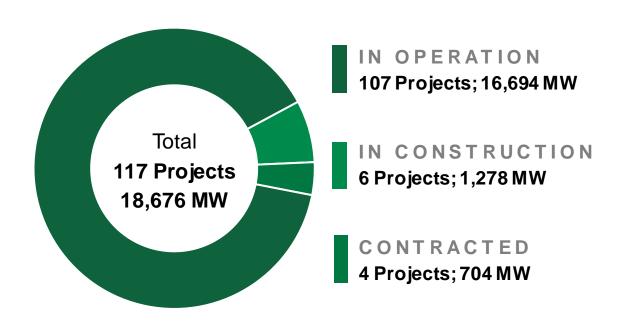
# Wind is propelling the clean energy transition.

#### **Experience including:**

- Top privately-held developer of wind globally, and an industry pioneer with first project completed in 2004
- Best-in-class wind operator with 97.0% fleet availability and data-driven, in-house asset management.
- End-to-end in-house capabilities, from development and project engineering, to construction and operations.



#### **Invenergy Wind Portfolio**



#### Invenergy

# Achieving Responsible Development in the Onshore Environment



#### MINIMIZE ENVIRONMENTAL RISK

Collect and assess information on species of concern and sensitive habitats to design, build, and operate sites in a way that avoids and minimizes risks.

#### STAKEHOLDER & TRIBAL ENGAGEMENT

Engage with regulatory agencies, Tribes, and affected communities at every stage of development to exchange information on environmental risks and identify appropriate strategies to manage those risks.



#### INDUSTRY COLLABORATION

Engage with industry organizations to advance industry awareness, promote smart policy, and pursue innovative solutions for responsible development and operations.



### ADVANCING RESEARCH & INNOVATION

Strategic advancement of research that provides the knowledge, tools, and techniques necessary for environmentally responsible renewable energy development and operations.

#### Invenergy

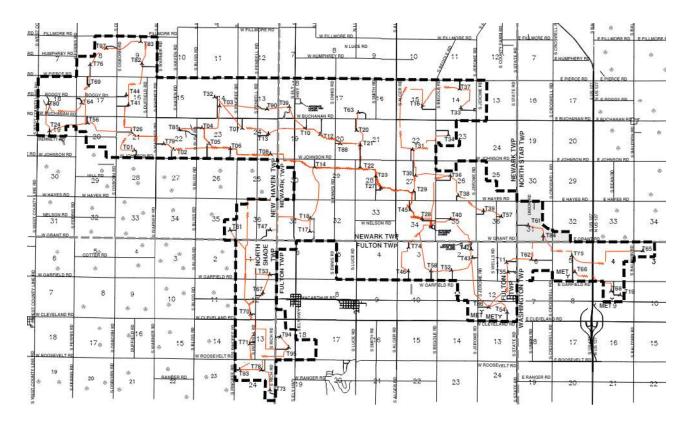
# Heartland Farms Wind Gratiot County, Michigan

Newark, New Haven, North Shade, North Star and Washington Townships

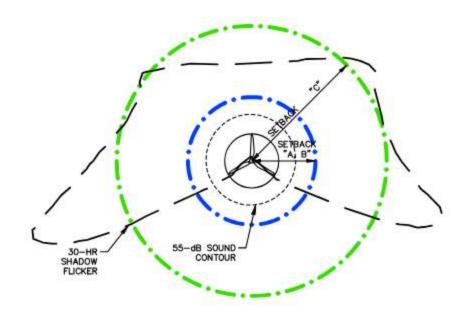
72 turbines

201 MW

Commercial operation achieved December 2023



# North Star Township Example



#### WTG SETBACK TABLE

SETBACK	SETBACK TYPE	DISTANCE (FT)		
	HUB HEIGHT 88.6 METER TOWER	290.68		
	TIP HEIGHT 88.6 METER TOWER	499.02		
*	NON-PARTICIPATING PROPERTY SETBACK (1.5 X HUB HEIGHT) 88.6 METER TOWER	436.5		
0	PUBLIC R.O.W. (ROADS, RR, RAIL TRAILS) (1.5X HUB HEIGHT) OR (400 FT. MIN.) 88.6 METER TOWER	436.5		
c	OCCUPIED BUILDINGS THE GREATER OF (2 X HUB HEIGHT) OR (1000 FT) 88.6 METER TOWER	1000		



# MPSC Staff Draft Straw Proposals

(1) Pre-application process flowchart

(2) Public notice and community participation

(3) CREO guidance

(4) One-time grants to local units

(5) Application fees

See: <u>Comment Request</u>



### **Informal Comments Received**

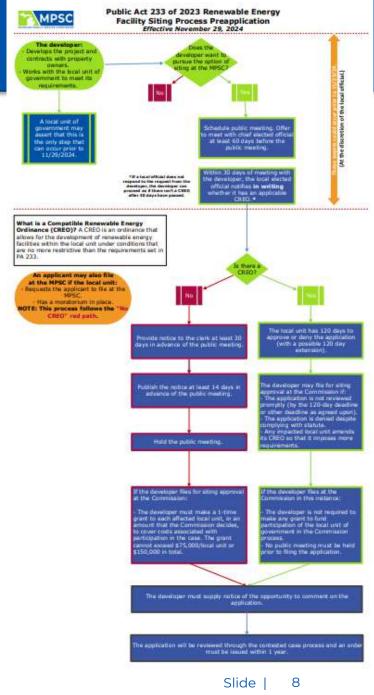
### Comments received from:

- → Michigan EIBC and Advanced Energy United
- → Energy Michigan
- → Michigan Association of Counties
- → Orsted (developer)
- → Henrietta Township
- → Waterloo Township
- → DTE Electric
- → GLREA
- → MI Conservative Energy Forum
- → Several Individuals



## **Informal Comments Received**

- Comments received on the draft flowchart:
  - → Suggest indicating that only utility scale projects can go through the MPSC path for clarity. (GLREA)
  - → Clarification is requested that the flow chart clarify that the notice of opportunity to comment on the application is similar to when a regulated utility files a rate case and is not an entirely separate commenting process. (GLREA, EIBC)
  - → Request to remove "at the discretion of the local unit" and allow public meetings and local unit notification of CREO status to take place without local unit concurrence. (EIBC)
  - → Would like confirmation that Staff's intent was to allow the public meeting to be scheduled but not held prior to November 29 (EIBC)





## Informal Comments: Local Unit Definition

- Several suggested that the definition of the affected local unit should be the local units with zoning jurisdiction and that the definition of affected local unit should align with the MZEA. (GLREA, EIBC, Energy MI, DTE, MICEF)
- Others agreed that adhering to the strict language of the statute which does not take into account zoning jurisdiction should be recommended. (MAC)
  - → Local units without zoning jurisdiction are still impacted: community resources will be utilized, infrastructure will be altered, acres will be occupied, constituencies will voice concerns, master plans will be re-examined, among other things. (MAC)
- The Commission cannot legally have a different definition of affected local units of government for CREO provisions from the definition used for the other provisions. (EIBC, Energy MI)



## **Informal Comments: Public Participation**

- Several suggested that a requirement to send notice of the public meeting by US Mail to those within 1 mile of solar/storage and within 5 miles of proposed wind projects was excessive and an oversteps the authority provided in the statute. (EIBC, GLREA, MICEF, individual)
  - → MZEA provides for notice to be sent to residents within 300 feet and MPSC should not exceed 300 feet. (EIBC)
- Others suggested that the notice of the public meeting should be mailed to everyone in each affected township. (Individuals) MAC supported Staff's proposal.
- Act 233's 14 days publication of notice is inconsistent with MZEA which is 15 days. Notice should be published in newspaper AND online and battery storage notices should be sent to all addresses within 1 mile. (Henrietta Twp)
- Concerns were expressed regarding publicly posting information about where the notices were mailed and who attended public meetings. (EIBC, GLREA, MICEF)
- Need additional clarity on meetings with local officials when does the 30 days begin – from the certified mail receipt? Could a timeframe to meet be specified so the local official has to agree to meet sooner than 6 months after the request was received? (Orsted, EIBC)



## **Informal Comments: Public Participation**

- MAC suggested that the offer in writing to meet with the chief elected official be submitted to the entirety of the legislative body for each affected local unit. (MAC)
- A noticing requirement for all late/extra/supplemental application materials submitted throughout the process should be required. (Individual)
- The location of the public hearing should be allowed to be in an adjacent township if there aren't facilities with enough space in the affected township. (Individual)
- Additional time is needed to publish notices, notify the clerk and meet with elected official. (Individual)
- Do the notice and public meeting requirements apply to unzoned areas? (DTE)



## Informal Comments: CREO Guidance

- The MPSC has no authority to re-write the law to effectuate CREO requirements (individual)
- CREOs should not be required in unzoned areas (DTE)
- Questions arose regarding a dispute resolution process for CREO determinations, how to proceed when part of the project is in an area with a workable ordinance and part of the project is not (or unzoned). (DTE)
- For projects in multiple jurisdictions, only the portion of the project in the area without a CREO or workable ordinance should come before the commission and the remainder should be sited locally. (EIBC)
- Guidance does not make clear whether CREOs can include things not mentioned in statute such as maximum lot coverage, among many other items. (Orsted)
- A CREO should be considered compliant with additions of reasonable regulations that address a complaint procedure to deal with noise complaints, excessive glare & shadow flicker, drainage, and temperature effects on sensitive habitats. Should be able to require "wildlife friendly fencing" and patterned solar panels to minimize bird interference. (Henrietta Twp)
- Pollinator and native grasses requirement on PA 116 lands should be required. (Henrietta)



## Informal Comments: CREO Guidance

- EGLE should recommend setbacks to protect impacted riparian areas such as wetlands, floodplains, streams and lakes and should be included in CREOs and MPSC approvals. (Henrietta Twp)
- If a CREO was defined explicitly as a zoning ordinance, it would allow the local unit in control of zoning to adopt a CREO and prevent redundancy or contraindications through other ordinances. (MAC)
- Clarification is requested on how long a local unit would have to update its ordinance to become CREO-compliant? Could the developer apply directly to the MPSC if found to not have a CREO and ordinance not yet updated? (EIBC)
- MAC appreciates the flexibility of allowing local units to adapt over time.
- MI Conservative Energy Forum comments that #1d in CREO guidance is a re-statement of what the statute allows.
  - → #1d: The Staff recommends that the MPSC should allow any provision specified in PA 233 to be considered by the Commission in a siting review as acceptable provisions in a CREO as long as the standard utilized by the local unit of government is not more restrictive than outlined in the statute.



### Informal Comments: One-Time Grants

- The MPSC has no authority to re-write the law regarding One-time grant disbursements law is clear. (individual)
- Comments received indicating that only local units with zoning jurisdiction should receive grants. (GLREA, EIBC, MICEF)
- If the township is self zoning, then the county should not have any grant dollars. If the county is responsible for zoning, then both should receive grant dollars (individual)
- The proposed method of distribution is convoluted. Legal fees required will not be based on MW located in the local jurisdiction. Recommend splitting grant dollars equally among all affected local units. (MAC)
- Dividing the intervenor funds based on the amount of land used makes sense (MICEF)
- An exhibit should be filed with complete information on the expenses and documentation of paid invoices for the funds already spent. (EIBC)
- Unexpended funds should not be returned within a short timeframe as they should be available for use on appeals. (MICEF)
- Unexpended grant funds should be deposited into local unit's general fund. (MAC)



### Informal Comments: One-Time Grants

- Funding for on-going intervals of fire department training should be made available for battery storage through the life of the facility. (Henrietta Twp)
- Do the one-time grants apply to unzoned areas? (DTE)
- If projects have been denied locally can the company go to the MPSC without first having gone through the local appeal? (individual)
- What is a pre-hearing and is there any stipulation on what the funds can be used for? (Individual)



### **Informal Comments: Application Fees**

- Comments were received requesting application fees not be excessive as the costs will eventually be passed on to customers through the cost of the power. (GLREA)
- Staff should recommend capping application fees at \$150,000 instead of \$250,000 to match Ohio's cap. (EIBC)



## Informal Comments: Comments on other topics

- Guidance should make clear that when modifications are made to a site plan, the review process doesn't start over. (Orsted)
- The site plan submitted with public notice for the community should be detailed and include studies relating to sound, shadow, and impacts to wildlife at a minimum. (Individual)
- There should be requirements for liability insurance. (Waterloo township)
- Surety bond should be fully funded from the beginning. (Waterloo)
- Training for local EMS should be required. (Waterloo)
- Erosion control requirements need to be added. (Waterloo)
- □ Well water monitoring needs to be required. (Waterloo)
- A complaint resolution process needs to be included. (Waterloo)
- PA 233 is different from MPSC transmission and pipeline siting authority PA 233 doesn't provide for eminent domain and a denial under PA 233 impacts private property rights. (EIBC)



# DISCUSSION: MPSC Staff Draft Straw Proposals

- (1) Pre-application process flowchart
- (2) Public notice and community participation
- (3) CREO guidance
- (4) One-time grants to local units
- (5) Application fees

See: <u>Comment Request</u>



# Agenda

- ➢ Welcome and Intro Julie Baldwin, MPSC
- Site Plan Presentations and Discussion
  - ➢ Dr. Laura Sherman, MI EIBC
  - > Amber Miller, National Grid Renewables
  - Christina Martens, Savion
  - Daniel Vertucci, Invenergy
- Comments Received on MPSC Staff Straw Proposals
  - MPSC Staff & and interested respondents

#### > U of M Capstone Siting Research Update

- > U of M Taubman College of Architecture and Urban Planning Graduate Students
- > Open Comment Period All participants
- ➢ Next Steps and Closing Cathy Cole, MPSC

#### Sign up for our email distribution list:

www.michigan.gov/mpsc/commission/workgroups/ 2023-energy-legislation/renewable-energy-andenergy-storage-facility-siting





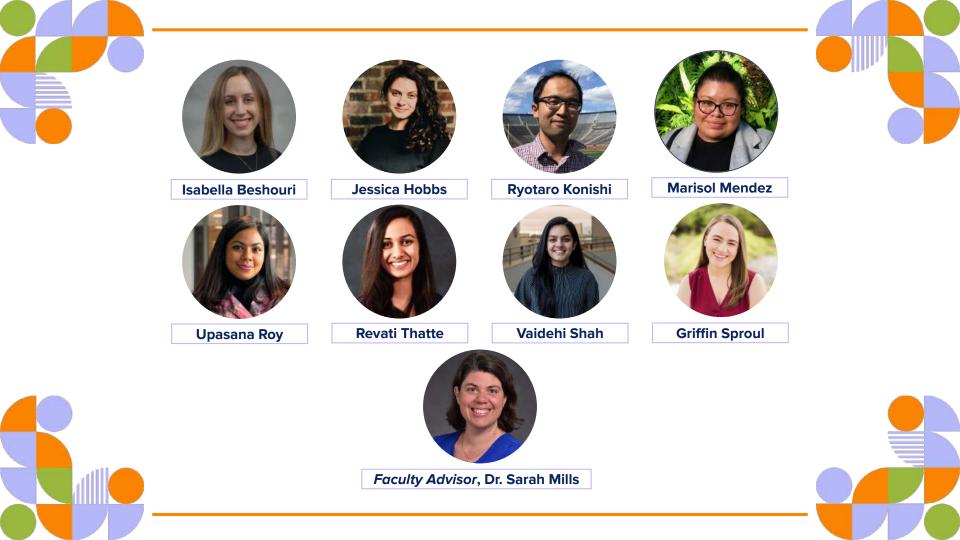


### **POWER IN PARTNERSHIP:** Insights for Siting Utility-scale Renewables in Michigan

For use by the Michigan Public Service Commission











# OVERVIEW OF METHODOLOGY



### Approach

We regularly met with MPSC staff in January to learn about their existing operations as well as establish and refine project goals

**Goal #1:** To understand what's worked well & what hasn't from other siting authorities –effectively, expedite staff's learning curve with respect to renewables

**Goal #2** To help ensure that projects sited under the MPSC process follow best practices with respect to project design and community engagement.

### **State Siting Authority**

# Goal #1: To understand what's worked well & what hasn't from other siting authorities

**Strategy #1: Interviews** with MPSC state level peers, developers and Michigan local officials in places where workable projects have been approved.

Our interviews with **MPSC peers** from other states focused on generic implementation processes and coordination with communities.

Interviews with **Michigan officials** related to siting authority focused primarily on technological aspects and application processes.





### **Project Design & Community Engagement**

Goal #2 To identify & share best practices for project design & community engagement for utility scale renewable energy projects

- **Strategy #1: Interviews** with MPSC state level peers, developers and Michigan local officials in places where workable projects have been approved.
- Strategy #2: learn about project design by reviewing site plans, zoning ordinances, local meeting minutes and final conditions of approval
- Strategy #3: Compare the built projects to PA 233 text
- Strategy #4: Pull and analyze best practices from academic literature

**Project deliverable is a report for the use of MPSC.** 

It contains the following topics:



#### **Other States**

Wind

Solar

#### Battery Energy Storage System (BESS)

**Community Engagement** 





# COMPARISON TO OTHER STATES



### **Other States**

**Purpose:** To contextualize Michigan's new siting law and inform its implementation using lessons learned from other states.

In interviews with regulators in California, Minnesota, New York, Ohio, and Wisconsin, we asked about...

- Siting process, application review, and use of consultants
- Environmental review
- Compliance and monitoring
- Community engagement
- Intervenor funds



### **Some Suggestions and Takeaways**

MN



Siting process, application, standards, and use of consultants

•••• Consider hiring consultants to ensure that MPSC has the bandwidth to evaluate applications efficiently and makes a smooth transition through its new siting responsibilities. **[§226.4**]

Community engagement

• • • • Consider MPSC staff presence at these meetings. [§223.1]

Consider establishing a system to document and resolve complaints. [+]

OН

WI

NY



### **Some Suggestions and Takeaways**

Environmental review

Consider including long-term social and economic impacts of a project in the environmental review process. [§225.1(f)]

Compliance and monitoring

Consider requiring the developer to fund an independent, onsite
 evaluator accountable to the Commission during construction. [§226.4]









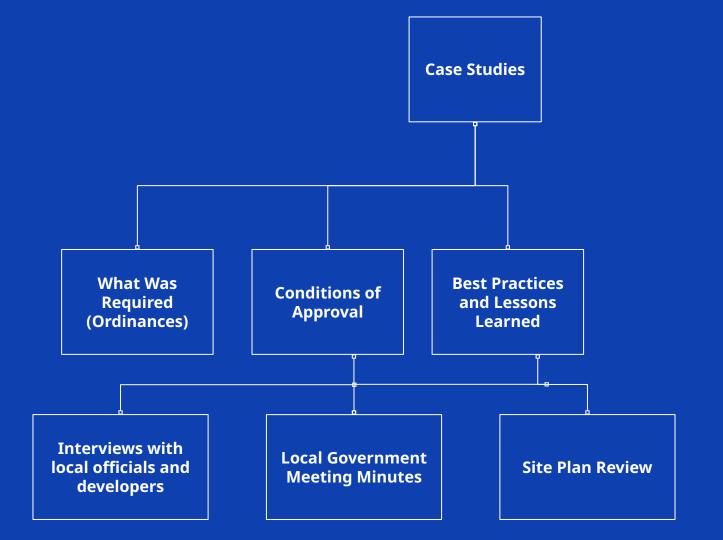






# UTILITY-SCALE WIND IN MICHIGAN





### **Isabella Wind**



Image Credit: Second Wave Media

#### 383 MW

Currently operating Approved by Isabella County: 01/31/2019 AG-1, AG-2, and AG-3 (Agricultural)

### **Meridian Wind**



Image Credit: DTE

#### 225 MW

Currently operating Approved by Mt. Haley Township on 11/18/2020 Approved by Porter Township on 12/23/2020 Approved by Jonesfield Township on 11/30/2020 A1 + A2 (Agricultural)



### **Zoning vs Conditions of Approval Table**

As part of our work, we provided a table\* indicating how PA 233 content and other topics appeared in the jurisdictions we studied

		Isa	bella		Meridian					
			Isabella County		Porter Township		Mt Haley		Jonesfield	
PA 233 General Standards	Safety [226(7)(g)], [225(g)], [225(q)]			z		Z	C	z		
	Construction Codes and Interconnection Standards [226(7)(g)]	z	С	z		z	С		С	
	Airport and Aviation Permit [226(7)(g)]	z	С						С	
	Environment Permit [226(7)(c)], [225(c)], [225(l)], [225(p)]	z	С	z	С	z	С	z	С	
	Avian and Wildlife Impact Permit [226(7)(c)], [225(c)]					Z				
	Utilities [226(7)(c)]	z	С	Z		Z				
	Decomissioning [226(7)(g)], [225(r)]	Z	С	z	C	Z	С		C	

\*visual is only one section of table

Z indicates Zoning Ordinance C indicates Conditions of Approval

#### Z indicates Zoning Ordinance C indicates Conditions of Approval

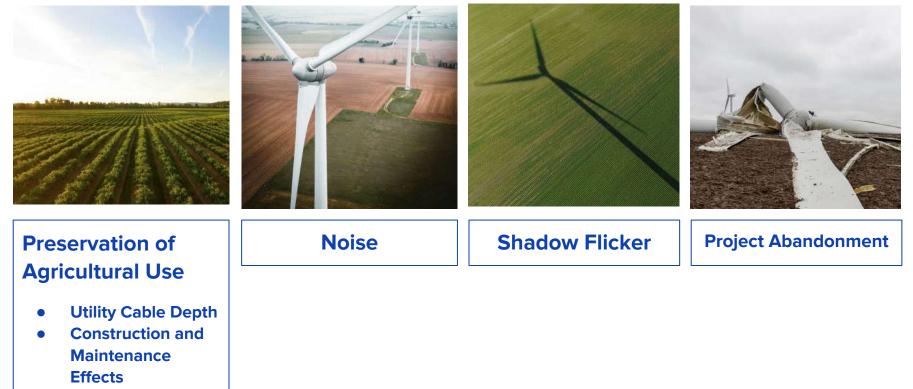
# Zoning vs Conditions of Approval Table

#### The table goes on to highlight the categorical gaps in PA 233

		Isabella			lian			
		lsab Cou		Porter Township	Mt Ha	ley	Jonesfield	
Sample Zoning for Wind Energy Systems	Accessory Uses	Z		z	z			
	Post Construction Sound Study	z	С			С	С	
	Construction Specific Standards		С	С	z	С	С	
	Performance Security	z		С	z	С	С	
	Visual Impact	z		ZC	z			
	Complaint Resolution	Z	С		z	С	С	
	Annual Maintenence Review			С	Z	С		
Additional Requirements	Other Permit Requirements			С	z	с		
	Roads (Access, ROW)		С	С	z	С	С	
	Certifications			С		С		



#### **Common Public Concerns about Utility-Scale Wind**



# Some Suggestions and Takeaways

Standards and Conditions of Approval

Consider collaborating with MDARD to weigh in on suggested utility cable depth or have a study done to determine ideal depth of utility cables. [§225.1k]

Consider specifying when decommissioning must commence, depth of excavation required, and the quality of soil restoration the developer should perform. [§225.1r]



Local zoning ordinances



Condition of Approval





# **Some Suggestions and Takeaways**

**Technical Requirements** 

For shadow flicker and sound, consider hiring third-party qualified individuals to conduct industry standard computer modeling to demonstrate compliance; evaluate corrective actions or enforcement of non-compliance [§226.8.vi, 225.1s]

#### **Complaint Resolution**

Consider establishing a complaint validation process; document and submit reports of complaints to the Commission; require developers to submit a complaint resolution plan as an application document, or impose it as a condition of approval. [§225.1s, 226.6]



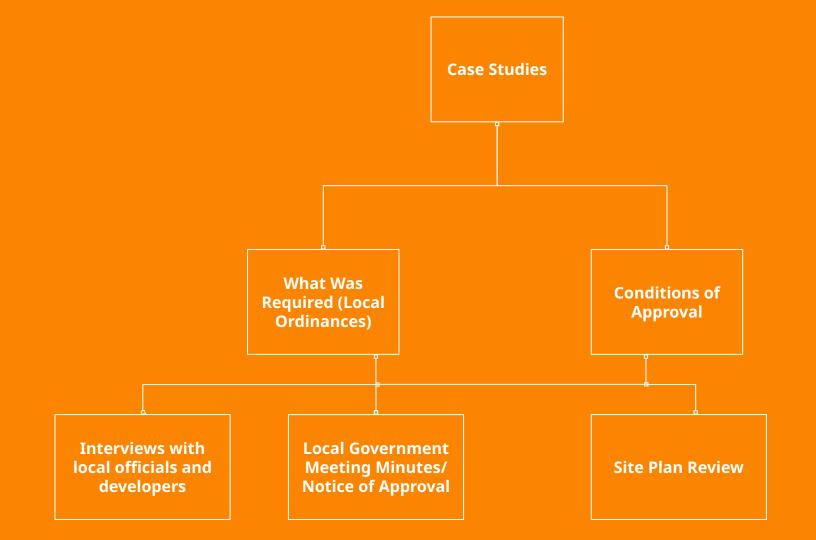






# UTILITY-SCALE SOLAR IN MICHIGAN





# **Case Studies** | Selected the only operational solar energy facilities that meet 50MW threshold





#### **Assembly Solar**

A 239 MW solar generation facility that is located within Venice and Hazelton Townships in **Shiawassee County Michigan** 

#### **Calhoun Solar**

A 200 MW solar generation facility that is located within **Convis Township and Pennfield Township** in Calhoun County

Assembly Solar, Shiawassee County, Michigan. Image Credit:McCarthy Building Company

# **Zoning and Condition of Approval Table**



\*visual is only one section of table

Local Zoning Ordinance C Condition of Approval

# Zoning and Condition of Approval Table (continued)



\*visual is only one section of table

Local Zoning Ordinance Condition of Approval



# **Some Suggestions and Takeaways**

Reasonable Conditions

Consider adding vegetative screening/landscaping and require the developer to add screening details to the site plan to get community input on type and method of screening [§226.6 and §224.1] -

Consider requiring the developer to place inverters closer to the center of the project or a larger distance from habitable structures than other solar project equipment may be allowed. [§226.6]

Consider requiring developer regularly maintain and mow the vegetative cover to reduce fire risk and increase public safety. [§226.6.d] [§226.7.g]









# **Some Suggestions and Takeaways**

Glare Study

Consider requiring the developer to provide a glare study by a third-party qualified professional to determine if glare from the solar project will be visible from nearby residences and roadways.[§225.1.(s)]

#### Balancing Local Needs

Consider consulting with the local jurisdictions to understand low-conflict siting lands from their local zoning requirements that carefully balance community's needs for preserving agricultural lands and lands that can be used for renewable siting **[§225.1.(n) and §226.6]** 













# **Comprehending Fire Risk Mitigation**

#### Codes and Standards



NFPA 855 : Compliance in PA 233 [§226.8(c)(ii)]

NFPA 855	Section	Corresponding Questions
Equipment Certification	4.6	Is this system listed to UL 9540?
Emergency Response Plan, Training for Local Responder	4.3	Have local fire officials been briefed on the project?
Site/Facility Construction	9.3 - 9.6	What training would be necessary for first responders?
Fire Control and Suppression Explosion Control	4.9 9.6	What explosion control equipment will the project employ?
Decommissioning Plan	8.1	What maintenance and repair plans are in place?

# **BESS Study Cases**

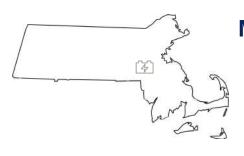


#### Valley Center (San Diego County, CA)

- "Semi-Industrial" next to Housing
- A Fire Incident took place in 2023

#### Le Conte (Imperial County, CA)

- "Agricultural" remote from Housing
- Hybrid Project w/ Solar



Medway (Town of Medway, MA) pre-operational

- "Agricultural Residential" next to Housing
- Host Community Agreement

#### Valley Center Energy Storage



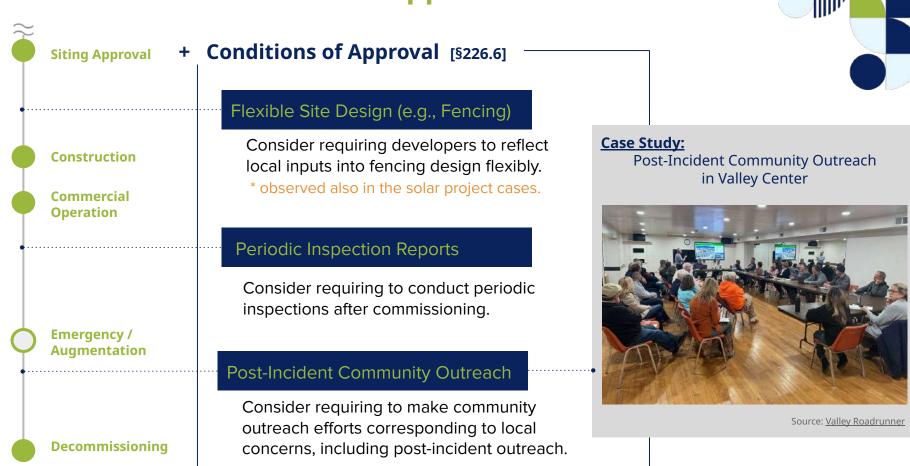


### **Encourage Pre-Planning through Application Requirements**



Source: Valley Roadrunner

### **Public Intervention in Post-Approval Process**







# UTILITY-SCALE RENEWABLES & COMMUNITY ENGAGEMENT



# Methodology

#### Community engagement best practices

- Community planning literature
- Public outreach + engagement guidance

#### Renewable energy planning literature

• Academic scholarship

+

• Solar + wind industry best practices

#### PA 233 suggestions & takeaways

- Opportunities within MPSC authority
- Developer behavior nudges

### Local history and context

Community engagement

Renewables planning

- Understanding community
   demographics helps to
   inform outreach strategies.
- Learn residents' vision for their community well in advance of any proposed development.
- Be considerate of deeprooted place attachment by exploring the range of reasons why residents chose to live in rural communities.
- Consider how a project
   might fit within local land
   use history and goals.

#### PA 233 takeaway

Consider requiring developers to include **locally-identified alternatives** in their feasible alternatives analysis. **[§225.1(n)]** 



# **Stakeholder identification + management**

Community engagement

Relevant stakeholders include those who will **benefit** as well as those who may be **harmed**.

Hold engagement sessions in locations and at times that are easily accessible. Renewables planning

Facilitate open and ongoing
 dialogue with adjacent
 landowners and the entire
 community.

 Open doors to questions from the public – both
 literally, by staffing an onsite office, and figuratively, by sharing contact information and building a user-friendly website. PA 233 takeaway

Consider instructing developers to send **direct notice of the public meeting to stakeholders** when prescribing the format and content of the notice. **[§223.1]** 

# **Public meetings**

Community engagement

Renewables planning

- Public meetings are opportunities to continue an ongoing two-way dialogue.
- Ensure the public is aware of the purpose of the meeting to avoid misleading community members about their ability to provide input.
- Engagement opportunities should be aligned with a
   "consult-consider-modifyproceed" process.
- Developers and state officials should recognize the legitimate contributions of local citizens and allow them some bearing on final decisions.

PA 233 takeaway

Consider directing developers to follow the **minutes and sound recording requirements** in the Michigan Open Meetings Act. **[§223.1**]

# **Building relationships**

Community engagement

Renewables planning

- Follow through on commitments made throughout the development process.
- The ability to directly interact with a developer can significantly strengthen trust.

- Demonstrate consistency and reliability when working with communities.
- Expectations set in the process of approving a project should be followed through on in its construction and operations, all the way through to decommissioning.

PA 233 takeaway

Consider requiring developers to report all public comments received and **whether and how each comment was addressed** in the proposed application. [§225.1(j)]





# CONCLUSION



# Coming soon...



Statute	Takeaways	Sec. 225.1 Application Requirements				
Sec. 223 Community Outreach & Consultation         (1) public meeting and notices       (states-4) Consider MPSC staff presence at these meeting options for a comparable of alternative, such as a developer-bosted website with publication of project information and map visualization including address search capabilities and identification sensitive receptors.         (community-2) Consider including delegation of the public score o	nity Outreach & Consultation (states-4) Consider MPSC staff presence at these meetings. (states-4) Consider defining options for a <i>comparable digital</i> <i>alternative</i> , such as a developer-based website with publication of project information and map visualizations including address search capabilities and identification	Sec. 225.1 Application Requirements         (k) evidence of consultation         (states-3)         Consultation         with the agencies named in PA 233; a         summary of ary concerns with the project identified by         the agencies: and a detailed report of the developer's         wosed mitigation measures, if applicable.         (win sub)       Consider collaborating with MDARD to weigh in on substed utility cable depth or have a study done to dem nine ideal depth of utility cables.				
	notice of the pub take ident of the pub take ident of the pub prescribing the form the indicor to incide the incident of the i	(community-6) Consider requiring developers to submit a summary of consultation with the agencies about alternatives compliant with least-conflict siting studies.				
(2) meeting with the chief elected official	eeting with chief       (states-1) Consider requiring developers to provide a summary of the chief elected official's concerns about the project and	<ul> <li>(n) a description of feasible alternatives</li> <li>(solar-3) Consider aligning with local land use regulations to site projects on lands that are less feasible to farming.</li> <li>(community-6) Consider clarifying to developers that, where local planning for renewables has been done, their alternatives analysis should include locally-identified alternatives.</li> </ul>				







# **THANK YOU TO:**

Dr. Sarah Mills, Course Instructor Cathy Cole, MPSC Mike Byrne, MPSC Julie Baldwin, MPSC Eddie Garcia, MPSC







# **QUESTIONS?**



# How To Submit A Comment

# Online

All attendees will be muted until called upon to speak which is on a first-come, first-serve basis.

### To Be Called On:



Raise your hand by clicking on the "Raise" icon.

### When Called On:



Unmute your mic by clicking on the "Mic" icon.



**1PSC** 

You may turn on your camera by clicking on the "Camera" icon.

# **By Telephone**

<u>Dial</u>: 248-509-0316; <u>Passcode</u>: 826 953 687#

To Be Called On:

Press \*5 to enter the line to speak.

When Called On:

Press \*6 to unmute.

# **By Email**

Send informal comments to: <u>colec1@michigan.gov</u> and <u>baldwinj2@michigan.gov</u>

# **Next Steps and Closing**

- Thank you for your input and participation in today's meeting.
- > Additional input is welcomed.

# **Written Comments**

# Email To:

<u>Colec1@michigan.gov</u> and <u>Baldwinj2@michigan.gov</u>

# Mail To:

Michigan Public Service Commission Attn: Cathy Cole P.O. Box 30221 Lansing, MI 48909

#### Sign up for our email distribution list:

www.michigan.gov/mpsc/commission/workgroups/ 2023-energy-legislation/renewable-energy-andenergy-storage-facility-siting



# **Upcoming Meetings**

- > Wednesday, May 15, 2024 at 1:00 pm \*NEW DATE\*
- Tuesday, May 28, 2024 at 1:00 pm \*NEW DATE\*

Please email questions and informal comments to <a href="mailto:colec1@michigan.gov">colec1@michigan.gov</a> and <a href="mailto:baldwinj2@michigan.gov">baldwinj2@michigan.gov</a>

#### Sign up for our email distribution list: www.michigan.gov/mpsc/commission/workgroups/ 2023-energy-legislation/renewable-energy-andenergy-storage-facility-siting

