Conway Township Planning Commission Agenda

Monday, September 12, 2022 | 7:00pm

Conway Township Hall | 8015 N. Fowlerville Road, Fowlerville, Michigan 48836

1. CALL TO ORDER / PLEDGE

2. ROLL CALL

3. CALL TO THE PUBLIC

4. APPROVAL OF PLANNING COMMISSION MEETING September 12, 2022 AGENDA

5. APPROVAL OF THE AUGUST 8, 2022 MEETING MINUTES

7. COMMUNICATIONS

a. Zoning Administrator's Report
b. Board Ex-Officio Report
c. Livingston County Planning Commission Report

8. OLD BUSINESS

a. Rezoning of Parcel No. 4701-10-300-020 Update
b. Solar Ordinance Draft
   i. Sarah Mills, PhD | U of M Graham Sustainability Institute
c. Section 6.06 (N) Accessory Structures Constructed Prior to or Without a Principal Building
d. Land Division Ordinance – one new legal description

9. NEW BUSINESS

a. Section 6.07 Supplemental Regulations Pertaining to Yards
   A. Permitted Yard Encroachments
      6. Swimming Pools (conditions)
b. Zoning Board of Appeals (PC) Appointee

10. PLANNING COMMISSION MEMBER DISCUSSION

11. LAST CALL TO THE PUBLIC

12. ADJOURNMENT

Any person may speak for up to 3 minutes during the public comment period. Groups of 10 or more have the option of selecting a spokesperson, who may speak for up to 10 minutes.

Next Meeting will be October 10, 2022

Conway Township Planning Commission Minutes

August 8, 2022 | 7:00pm

Conway Township Hall | 8015 N. Fowlerville Road, Fowlerville, Michigan 48836

Agenda	Items Discussed	Action
Attendees	PC Members Present: Jeff Klein, Meghan Swain-Kuch, Dave Whitt, George Pushies - Ex-Officio, Kelly Ralko, Lucas Curd, Kayla Poissant. Zoning Administrator Gary Klein Livingston County Planning Commissioner: Dennis Bowdoin Township Attorney: Abby Cooper Township Planners: Hannah Smith, Justin Sprague Recording Secretary: Elizabeth Whitt	
Call to Order/Pledge	Vice Chair M. Swain-Kuch called the Conway Township Planning Commission meeting to order at 7:00pm and led the Pledge of Allegiance.	
Londa Horton Tribute – Rerepresentative Bob Bezotte	Rep. Bob Bezotte read and presented the tribute to the Horton Family	None
Call to the Public	None	
Approval of Agenda	Motion to accept the meeting agenda as presented for August 8, 2022. Motion by Ralko. Support by Whitt. Motion approved.	
Approval of the July 11, 2022 Meeting Minutes	Motion to accept the July 11, 2022 minutes as amended. Motion by Klein. Support by Ralko. Motion approved. Amendment to strike first sentence in section Old Business a. Rezoning of Parcel No. 4701-10-300-020 ~~Still waiting for a list of what the applicant is doing and not what they are doing.~~ M. Swain-Kuch ~~added~~ stated that this request will be on the Livingston County Planning Commission agenda for July 20, 2022.	Amend July 2022 Minutes
Zoning Administrator Report	ZA Klein reported that seven applications have been received since he began work. Four were approved, three are pending review.	None
Board Ex-Officio Report	Ex-Officio Pushies said he did not have his notes and therefore did not have a report.	None
LCPC Report	Nothing from LCPC Bowdoin	None
Rezoning of Parcel No. 4701-10-300-020	The County gave their conditional approval with comments. Spot zoning issues were a concern. Repeated variance from the Master Plan is a concern. Motion to recommend approval of the rezoning application with final voluntary conditions offered by the applicant's attorney Roger Myers as presented to the LCPC. Motion by Klein. Support from Curd. Motion approved.	Attorney Cooper will take to the Conway Township Board of Trustees for their final decision.

Conway Township Planning Commission Minutes

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Solar Ordinance Draft	Discussion ensued regarding setbacks: the Commission's final direction to the planner was to require a minimum 50-foot setback with the option of requiring up to 150 feet. The wildlife corridor section will be amended as presented. Decommissioning language was deemed sufficient by Attorney Cooper. The commissioners agreed to have language inserted requiring the applicant to pay for any outside consultant's review as related to the three-year reviews. The conceptual plan requirement will be made optional. Battery storage concerns will follow best practices as researched by Planner Smith. Substations are sperate from the main array site plan. Smith will research this issue further as well. Smith will review the township's ordinances that deal with solar in all forms for uniformity.	Action
Solar Q&A with Emily Palacios, JD | Miller Johnson	Swain-Kuch led the discussion. Attorney Palacios was asked by a DTE Site Manager to attend the Conway PC meetings to report back developments. Swain-Kuch reiterated that the commission's intent and purpose in crafting the ordinance is to make it clean and tight to best protect the residents and landowners. ~~No ordinance leaves the township open to anything.~~	Action
Proposed Zoning Ordinance Amendments	No action was taken	
Welcome New Planning Commission Members / Appointment of New Secretary	Commissioner Poissant introduced herself. A motion was made to appoint Poissant as the POC Secretary. Motion by Whitt. Support by Klein. Motion approved.	Clerk Whitt will work with Poissant for a couple of months to help her draft the minutes.
Resolution to Extend the Commercial Solar Moratorium	Attorney Cooper recommended extending the moratorium for an additional six months. The commission agreed.	
Section 6.06 (N) Accessory Structures Constructed Prior to or Without a Principal Building	No discussion	
Land Division Ordinance – one new legal description	Swain-Kuch asked Clerk Whitt to explain the issue at hand. The Assessor and Zoning Administrator would like to have land combinations addressed in the Land Division Ordinance. This is a general ordinance, therefore Attorney Cooper will draft the necessary documents for the board.	Attorney Cooper will bring the documents to the board.
Planning Commission Member Discussion	None	
Last Call to the Public	None	
Adjournment	Motion by Pushies to adjourn at 9:17 p.m. Support by Klein. Motion approved.	

Conway Township Planning Commission Minutes

August 8, 2022 | 7:00pm

Conway Township Hall | 8015 N. Fowlerville Road, Fowlerville, Michigan 48836

Respectfully Submitted:

Elizabeth Whitt,
PC Recording Secretary

Approved:

Meghan Swain-Kuch,
PC Chair

Livingston County Department of Planning

LIVINGSTON COUNTY PLANNING COMMISSION MEETING
Wednesday, August 17, 2022 – 6:30 p.m.
Administration Building, Board of Commissioners Chambers
304 East Grand River, Howell, MI 48843

Please note that this is a hybrid meeting with County Planning Commissioners and staff meeting in-person. Audience participants are welcome to attend in-person or via Zoom by using the meeting link at the bottom of the agenda

Kathleen J. Kline-Hudson
AICP, PEM
Director

Robert A. Stanford
AICP, PEM
Principal Planner

Scott Barb
AICP, PEM
Principal Planner

Agenda

1. Call to Order
2. Pledge of Allegiance to the Flag
3. Roll and Introduction of Guests
4. Approval of Agenda – August 17, 2022
5. Approval of Meeting Minutes – July 20, 2022
6. Call to the Public
7. Zoning Reviews
   - A. Z-32-22 Putnam Township, Text Amendment, Article 6 Single-Family Residential Districts, Section 340-52 Establishment of SFR Districts, Section 340-55 Table of Uses and Section 340-56 District Regulations; Article 17 Administration and Enforcement, Section 340-177 Amendments.
8. Old Business
   - A. Visits to Local Planning Commissions
9. New Business
   - A. The Assembly Solar Facility Tour
   - B. Fall 2022 Citizen Planner Educational Series
   - C. Planning Commission Terms Expiring in 2022
10. Reports
11. Commissioners Heard and Call to the Public
12. Adjournment

Department Information

Administration Building
304 E. Grand River Avenue
Suite 206
Howell, MI 48843-2323

(517) 546-7555
Fax (517) 552-2347

Web Site
co.livingston.mi.us

Via Zoom (on-line meetings):
https://zoom.us/j/3997000062?pwd=SUdLYVFFcmozWnFxbm0vcHRjWkVIZz09
Via the Zoom app
Join a meeting, with meeting number: **399 700 0062**
Enter the password: **LCBOC** (ensure there are no spaces before or after the password)
Meeting ID: **399 700 0062**
Password: **886752**
Meeting recordings may be made using a personal computer or laptop, after requesting ability from the meeting host.

Livingston County Planning Department

County Planning Connection
August 2022 News

304 E. Grand River Ave. , Suite 206
(517) 546-7555
planning@livgov.com

Livingston County Citizen Planner Program

The Livingston County Planning Department and Livingston County Planning Commission are once again pleased to partner with Michigan State University Extension to host a ***Livingston County Citizen Planner Program in Fall 2022!*** The last time we co-hosted this excellent educational series was Fall 2017. The majority of Livingston County local units of government sent participants, and in some instances, all members of their planning commission. We hope to repeat this success!

The Citizen Planner instructors include MSU Faculty, MSU Extension educators, planners and attorneys. The core classroom program consists of six sessions on the following Thursday dates at the Livingston County Public Safety Complex, 1911 Tooley Road:

October 27	**Understanding the Planning and Zoning Context:** Learn the legal sources and limitations of planning and zoning authority, and explore your understanding of ethical decision-making.
November 3	**Planning for the Future of Your Community:** Recognize the function and importance of a master plan, know the process for developing one and its relationship to zoning.
November 10	**Implementing the Plan with Zoning:** Discover the importance of zoning, learn how zoning is administered and gain confidence in your zoning reviews, including site plans.
December 1	**Making Zoning Decisions:** Learn how to adopt and amend a zoning ordinance, understand the role of the zoning board of appeals and obtain skills in basic property development methods.
December 8	**Using Innovative Planning and Zoning:** Strategize with placemaking and design-based solutions for local and regional success in the New Economy.
December 15	**Successfully Fulfilling Your Role:** Strengthen your ethical decision-making skills, apply standards to your decision-making.

The course fee is $250 per participant for the complete core program. The fee covers registration and course materials. A group discount is available (for a group of 4 or more). Grants and scholarships may also be available from your community's liability insurance provider. For further information visit **http://citizenplanner.msu.edu, or contact Kara Kelly, Citizen Planner Coordinator at cplanner@msu.edu**. Online registration is available at: **https://events.anr.msu.edu/CPLivingston22/.** The registration deadline is **October 11, 2022.**

Fall means back to school for the kids and for planners too! If you are interested in participating in our next Livingston County Planning Department Brown Bag Lunch, please mark your calendars for the following educational presentation on a planning & zoning subject:

Glenn Pape, Agricultural Economic Development Plans
September 20, Noon—1:00 p.m., Genoa Township Hall

Full flyers on this event will be distributed in the coming weeks. Anyone is welcome and no RSVP required. Please use Covid PPE at your own comfort level.

**Note: Web links are not live in this publication. Please copy and paste them into your web browser or use links in attached PDF version.

CIB COMMUNITY IMAGE BUILDERS
PLANNING | MARKETING | ECONOMIC DEVELOPMENT

September 6, 2022

Planning Commission
Conway Township
8015 N Fowlerville Road
Fowlerville, MI 48836

Attention: Meghan Swain-Kuch, Planning Commission Chair

Subject: Solar Ordinance Updated Draft

Dear Commissioners:

As you know, we have been collectively working on a Solar Ordinance update over the past several months. This memo summarizes the edits in the most recent draft and highlights a few outstanding discussion topics and things to consider. These are detailed below:

Definitions

- We've revised the definition of a Solar Energy System to make it clear and consistent with the rest of the text. The new proposed definition is from the MSU Solar Guide – since the guide is the base for a lot of the proposed language in the new ordinance, this ensures that the definition is consistent. There are also edits throughout to use the term "solar energy system" rather than "solar energy collector" to ensure consistency throughout. This addresses comments from Dr. Sarah Mills about this definition.
- We've made the Dual Use definitions more specific, particularly for pollinator habitat and conservation cover. These definitions are consistent with the MSU Solar Guide, and make the standards more specific and enforceable.

Accessory-Scale Solar Energy Systems

- Based on some of the comments from Dr. Sarah Mills, we are suggesting removing some standards for accessory systems that may be barriers for those wanting to put small-scale systems at their residences, farms, etc. For example, Dr. Mills noted that the requirement of certification from a professional engineer for a small rooftop system may be onerous and cost prohibitive to residents wanting to install a rooftop system. It is recommended best practice to minimize barriers to small-scale accessory systems.
- **Lot Coverage** (Section 6.26.C.5.f). For small-scale ground-mounted systems, the current language does not require the area to be included in lot coverage calculations. Based upon a recommendation from Dr. Mills, we are suggesting this to be revised so that the total area of an accessory-scale ground-mounted system (accessory to a residence, farm, etc.) not exceed 50% of the square footage of the primary building on the property.

17195 Silver Parkway, #309
Fenton, MI 48430

Phone: 810-734-0000
Email: hsmith@cibplanning.com

Utility-Scale Solar Energy Systems

- **Setback from wetlands** (Section 6.26.D.10). As discussed at the previous Planning Commission meeting, we have revised the wetland setback requirement to be a minimum of 50 feet, with Planning Commission discretion to increase that requirement up to 150 feet. The wording has slightly changed ("edge of any wetland, or any shoreline or drain easement") to be consistent with the wording of the accessory structure standards.
- **Wildlife Corridors** (Section 6.26.D.15). As discussed, we have revised the wildlife corridors requirement to match the alternative text presented at the last Planning Commission meeting. This requires that developers show that wildlife corridors are provided for within the site, but gives them some flexibility as to how they are provided (i.e. natural land patterns may be used).
- **Landscaping/Screening** (Section 6.26.D.16). Based on a recommendation from Dr. Mills, we have added that landscaping must be maintained in accordance with the Installation and Maintenance Provisions of the Zoning Ordinance (Section 6.16.E). This requires that landscaping is maintained in healthy state and that any dead/diseased plants be removed and replaced within six (6) months.
- **Landscaping/Screening** (Section 6.26.D.16). The landscaping requirements of the Zoning Ordinance require that landscaping be provided along public road right-of-way and where adjacent to a residential property/district. Some solar ordinances allow flexibility for where landscaping is required – for example, only along properties abutting *existing non-participating houses* or allowing the developer to work with property owners to determine their preferred method of screening. **This is a topic for Planning Commission discussion.**
- **Decommissioning** (Section 6.26.D.20). The decommissioning fund section has been revised to require an escrow amount for review of cost estimates provided every three (3) years for approval. As written, the Township Board reviews and approves the decommissioning estimates and financial guarantees, but the Planning Commission determines the escrow amount for that review. As discussed at the last meeting, evaluation of decommissioning estimates and financial guarantees may be more suitable for the Planning Commission, as the PC will be the body reviewing the plans in detail. Abby, Justin, and I have discussed a potential alternative approach where the Planning Commission makes recommendations to the Board on the amount of the initial financial guarantee and any subsequent changes to that amount during the 3-year review, and then the Board would make final determination. **This is a topic for Planning Commission discussion.**
- **Abandonment** (Section 6.26.D.21)**.** Upon reviewing the draft, Abby has raised a question about decommissioning and abandonment of a project and ensuring that the Township can decommission using the financial guarantee if the operator doesn't decommission as they are supposed to, like in the case of abandonment. She has shared a suggestion from Dr. Mills for Cohoctah Township that an abandonment hearing be included in the ordinance, which could be a potential good addition to the Conway Township ordinance as well. **This is a topic for Planning Commission discussion.**
- **Site Plan Requirements** (Section 6.26.D.27). We have revised the standards to make the conceptual layout plan an optional step in the process, as decided at the last Planning Commission meeting. Applicants will have the option to submit a conceptual layout plan to the Planning Commission for discussion and feedback before they formally submit a site plan, but are not required to.

Battery Storage

- We are continuing research on battery storage best practices. Provided with your draft should be a copy of the Battery Energy Storage System Model Law document from NYSERDA (New York State Energy Research and Development Authority) for your review. This is part of the organization's "New York State Battery Energy Storage System Guidebook" and is referred to as a leading resource for battery storage zoning guidance.
- These model standards distinguish between two levels of battery storage systems – generally defined as Tier 1 systems (aggregate energy capacity less than or equal to 600 kWh) and Tier 2 systems (aggregate energy capacity greater than 600 kWh). Tier 1 systems are permitted in all zoning districts and Tier 2 systems are special land uses in specified districts. This guide includes standards for noise, safety, decommissioning, and other key applicable standards to address concerns with these systems.
- It is our understanding that large-scale battery systems (i.e. Tier 2) are the scale of battery storage systems that would be associated with utility-scale solar energy systems. The Township may consider having large-scale battery energy storage systems permitted as a special land use in certain districts – i.e. the same districts in which utility-scale solar energy systems are permitted. These would be considered a separate land use than the solar energy systems themselves and would require approval of an additional special land use permit. As a special land use, we can include specific standards like those included in the Model Law document.
- The Township could also consider standards for smaller-scale battery systems (i.e. Tier 1) that are more focused toward individual-level, accessory-scale solar energy systems. These can be topics for Planning Commission discussion.

We are looking forward to discussing further at the September 12, 2022 Planning Commission meeting. If you have any further questions, please don't hesitate to contact us at 810-335-3800.

Sincerely,

CIB PLANNING

Hannah Smith
Planner II

Definitions

Solar Energy ~~Collector~~System (SES): ~~A panel or panels, and other devices or equipment, or any combination thereof, that collect, store, distribute and/or transform solar, radiant energy into electrical, thermal or chemical energy for the purpose of generating electric power or other form of generated energy for use in or associated with a principal land use on the parcel of land on which the solar energy collector is located and, if permitted, for the sale and distribution of excess available electricity to an authorized public utility for distribution to other lands.~~A photovoltaic system or solar thermal system for generating and/or storing electricity or heat, including all above and below ground equipment or components required for the system to operate properly and to be secured to a roof surface or the ground. This includes any necessary operations and maintenance building(s), but does not include any temporary construction offices, substation(s) or other transmission facilities between the SES and the point of interconnection to the electrical grid.

1. **Building-Mounted Solar Energy ~~Collector~~System**: A solar energy ~~collector~~ system attached to the roof or wall of a building, or which serves as the roof, wall or window or other element, in whole or in part, of a building.
2. **Ground-Mounted Solar Energy ~~Collector~~System**: A solar energy ~~collector~~ system ~~that is~~mounted on support posts, like a rack or pole, that is attached to or rests on the ground. The system is not attached to and is separate from any building on the parcel of land on which the solar energy ~~collector~~ system is located.
3. **Utility-Scale Solar Energy System:** A large-scale facility of solar energy ~~collectors~~ arrays with the primary purpose of wholesale or retail sales of generated electricity.
4. **Accessory Solar Energy System**: A small-scale solar energy system with the primary purpose of generating electricity for the principal use on the site.

Solar Array: A photovoltaic panel, solar thermal collector, or collection of panels or collectors in a solar energy system that collects solar radiation.

Dual Use: A solar energy system that employs one or more of the following land management and conservation practices throughout the project site:

1. **Pollinator Habitat**: A site designed to have vegetation that will enhance pollinator populations, including a diversity of flowering plants and ~~a percentage of~~ wildflowers, and meets a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.~~.~~
2. **Conservation Cover**: A site designed with practices to restore native plants, grasses, and prairie with the aim of protecting~~on~~ specific species or providing specific ecosystem services, such as carbon sequestration or soil health. The site must be designed in partnership with a conservation organization or approved by the Livingston Conservation District.
3. **Forage/Grazing**: Sites that incorporate rotational livestock grazing and forage production as part of a vegetative maintenance plan.
4. **Agrivoltaics**: Sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.

Maximum Tilt: The maximum angle of a solar array (i.e. most vertical position) for capturing solar radiation as compared to the horizon line.

Minimum Tilt: The minimal angle of a solar array (i.e. most horizontal position) for capturing solar radiation as compared to the horizon line.

Participating Property: One or more properties under a signed lease or easement for development

of a utility-scale solar energy system associated with a project.

Non-Participating Property: One or more properties for which there is not a signed lease or easement for development of a utility-scale solar energy system associated with a project.

Section 6.26 Solar Energy ~~Collectors~~Systems

A. Purpose and Intent.

Conway Township promotes the effective and efficient use of solar energy collection systems. It is the intent of the Township to permit these systems by regulating the siting, design, and installation of such systems to protect the public health, safety, and welfare, and to ensure compatibility of land uses in the vicinity of solar energy ~~collectors~~systems. Accessory and utility-scale solar energy ~~collectors~~systems, as defined in this Ordinance, shall comply with the provisions of this Section.

B. Criteria For the Use of All Solar Energy Equipment.

1. Solar energy equipment shall be located to minimize visual impacts from the public right-of-way.

2. Solar energy equipment shall be repaired, removed, or replaced within twelve (12) months of no longer being operational.

3. All solar energy equipment must conform to all County, State, and Federal regulations and safety requirements as well as applicable industry standards.

C. Accessory Solar Energy Systems. Accessory solar energy systems, as defined in Article 2 Definitions, include building-mounted systems and ground-mounted systems with the primary purpose of generating electricity for the principle use on the site. Accessory solar energy systems are a permitted accessory use in all zoning districts, subject to administrative review and approval.

Commented [AC1]: Building-mounted solar energy collectors are listed as a permitted and ground-mounted solar energy collectors are allowed as special land use in the R, AR, C, and I districts. **WILL NEED TO BE UPDATED AFTER FINAL DRAFT

Commented [HS2R1]: Will need to update accordingly

1. **Application to Zoning Administrator**. An applicant who seeks to install an accessory solar energy system shall submit an application to the Zoning Administrator upon forms furnished and approved by the Conway Township Board of Trustees.
2. **Application Criteria.** The application must be approved in writing by the Zoning Administrator. The application shall include the following:

    a. Photographs of the property's existing conditions.

b. Renderings or catalogue cuts of the proposed solar energy equipment.

c. Certificate of compliance demonstrating that the system has been tested and approved by Underwriters Laboratories (UL) or other approved independent testing agency acceptable to Township.

d. Plot plan to indicate where the solar energy equipment is to be installed on the property.

~~e. Description of the screening to be provided for ground mounted solar energy equipment.~~

~~f.~~e. In addition to the criteria contained in this subsection, applicants seeking approval of ~~a ground-mounted solar energy collector system that is accessory to a residence and does not exceed 250 square feet, must also demonstrate that it meets all requirements of subsection (5).~~an accessory solar energy system shall meet the requirements of subsection (4) for a building-mounted system and subsection (5) for a ground-mounted system.

3. **Exclusions from Administrative Review.**

a. The installation of one (1) solar panel with a total area of less than eight (8) square feet.

b. Repair and replacement of existing solar energy equipment, provided that there is no expansion of the size or coverage area of the solar energy equipment.

4. **Building-Mounted Solar Energy ~~Collector~~ System Requirements.** A building-mounted solar energy ~~collector~~ system shall be a permitted accessory use in all zoning districts, subject to the following requirements:

a. Administrative review as set forth in subsection (1) above is required of all building-mounted solar energy system~~collector~~s permitted as an accessory use, subject to the exclusions in subsection (3).

b. Solar energy ~~collectors~~ systems that are mounted on the roof of a building shall not project more than five (5) feet above the highest point of the roof but, in any event, and shall not exceed the maximum building height limitation for the zoning district in which it is located, and shall not project beyond the eaves of the roof.

~~c. Solar energy collectors mounted on the roof of a building~~

~~shall be only of such weight as can safely be supported by the roof. Proof thereof, in the form of certification by a professional engineer or other qualified person, shall be submitted to the Zoning Administrator prior to installation; such certification shall be subject to the Zoning Administrator's approval.~~

~~d.~~c. Solar energy ~~collectors~~ systems that are roof-mounted, wall-mounted or are otherwise attached to a building or structure shall be permanently and safely attached to the building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Zoning Administrator prior to installation; such proof shall be subject to the Zoning Administrator's approval.

~~e.~~d. Solar energy ~~collectors~~ systems that are wall-mounted shall not exceed the height of the building wall to which they are attached.

~~f.~~e. Solar energy ~~collectors~~ systems shall not be mounted on a building wall that is ~~parallel to~~facing an adjacent public right-of-way.

~~g.~~f. The exterior surfaces of solar energy ~~collectors~~ systems that are mounted on the roof or on a wall of a building, or are otherwise attached to a building or structure, shall be generally neutral in color and substantially non-reflective of light.

~~h.~~g. Solar energy ~~collectors~~ systems shall be installed, maintained, and used only in accordance with the manufacturer's directions. Upon request, a copy of such directions shall be submitted to the Zoning Administrator prior to installation. The Zoning Administrator may inspect the completed installation to verify compliance with the manufacturer's directions.

~~i.~~h. Solar energy ~~collectors~~systems, and the installation and use thereof, shall comply with the County construction code and the electrical code.

~~j.~~i. A building-mounted solar energy ~~collector~~ systems installed on a nonconforming building, structure, or use shall not be considered an expansion of the nonconformity, but shall be required to meet all height and placement requirements.

5. **Ground-Mounted Accessory Solar Energy ~~Collector~~ System Requirements**. Ground- mounted solar energy collector systems which are accessory to a principal use shall be a permitted accessory use in all zoning districts, subject to the following

requirements:

a. Accessory ground-mounted solar energy ~~collectors~~ systems shall be located only as follows:

- They shall be located in the rear yard or the side yard, but not in the required rear yard setback or in the required side yard setback unless permitted by the Planning Commission.

- Should extenuating circumstance exist that prevent locating in the rear or side yard, the Planning Commission may approve a front yard location, but, in no event, shall the energy system be located in the required front yard setback. The applicant shall demonstrate to the Commission that the rear or side yard location is not feasible.

b. Solar energy ~~collectors~~ systems shall be permanently and safely attached to the ground. Proof of the safety and reliability of the means of such attachment shall be submitted with the application and shall be subject to the Zoning Administrator's approval.

c. Solar energy system~~collector~~s shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted with the special land use application. The solar energy collector may be subject to the Zoning Administrator's inspection to determine compliance with the manufacturer's directions.

d. **Height.** Accessory ground-mounted solar energy ~~collectors~~ systems shall not exceed sixteen (16) feet in height, measured from the ground at the base of such equipment, when oriented at maximum tilt.

e. **Appearance.** The exterior surfaces of solar energy ~~collectors~~ systems shall be generally neutral in color and substantially non-reflective of light.

f. **Lot Coverage.** The total area of accessory ground-mounted solar energy ~~collectors~~ systems shall not ~~be included in the calculation of the maximum permitted lot coverage requirement for the parcel of land.~~exceed fifty percent (50%) of the square footage of the primary building of the property. For any parcel of land two (2) acres or less, an accessory ground-mounted solar energy collector shall not be deemed an accessory building or structure for purposes of Section 6.06(~~F~~E).

~~g. **Fencing.** Accessory ground-mounted solar energy collectors must be fenced in with at least a six (6) foot fence~~

~~around the perimeter of the system.~~

~~h.~~g. **Nonconformities.** An accessory ground-mounted solar energy ~~collector~~ system installed on a nonconforming use or lot shall not be considered an expansion of the nonconformity, however, shall meet placement and height requirements

D. Utility-Scale Solar Energy Systems. Utility-scale solar energy systems, as defined in Article 2 Definitions, are permitted by Special Land Use approval and are subject to site plan and special land use review requirements.

1. **Special Land Use Required.** Special land use approval is required for a utility-scale solar energy system. Utility-scale solar energy systems are permitted as a special land use in AR Agricultural Residential, C Commercial, and I Industrial districts only.

2. **Height.** Utility-scale solar energy systems shall not exceed sixteen (16) feet in height, measured from the ground at the base of such equipment, when oriented at maximum tilt. The Planning Commission can permit up to twenty (20) feet in height for utility-scale systems as part of the special land use approval, to allow for grazing or other operations.

3. **Lot Coverage.** The total area of utility-scale solar energy systems shall not be included in the calculation of the maximum permitted lot coverage requirement for the parcel of land.

4. **Installation and safety.** Utility-scale solar energy systems shall be properly installed to ensure safety, and meet the following requirements:

   a. Solar energy system~~collector~~s shall be ~~permanently and~~ safely attached to the ground. Proof of the safety and reliability of the means of such attachment shall be submitted with the special land use application and shall be subject to the Planning Commission's approval.

   b. Solar energy ~~collectors~~ systems shall be installed, maintained and used only in accordance with the manufacturer's directions. A copy of such directions shall be submitted with the special land use application. The special land use, if granted, may be subject to the Zoning Administrator's inspection to determine compliance with the manufacturer's directions.

5. **Appearance.** The exterior surfaces of solar energy ~~collectors~~ systems shall be generally neutral in color and substantially non-reflective of light.

6. **Compliance with construction and electrical codes.** Utility-scale solar energy systems, and the installation and use thereof, shall comply with all applicable construction codes and electric codes, including state construction codes and the National Electric Safety Code.

7. **Fencing.** Utility-scale solar energy systems shall be fenced in with at least a seven (7) foot chain link fence or seven (7) foot woven wire fence with wooden or steel posts. Fencing must meet all applicable standards, including National Electrical Code requirements. Barbed wire is prohibited. Fencing is not subject to setback requirements.

8. **Transmission and communication lines.** All power transmission and communication lines between banks of solar panels and to nearby electric substations or interconnections with any buildings or other structures shall be located underground. Exemptions may be granted in instances when soil conditions, shape, topography, or other elements of the natural landscape interfere with the ability to bury lines, or distance makes undergrounding infeasible, at the discretion of the Planning Commission.

9. **Setbacks.** Minimum setbacks shall be two-hundred (200) feet from any non-participating property with a residence and one hundred twenty-five (125) feet from all other non-participating properties. This shall be measured from the property line of the adjacent property to the closest point of the solar array at minimum tilt or any solar energy system components. A utility-scale solar energy system is not subject to property line setbacks for common property lines of two or more participating lots, except road right-of-way setbacks shall apply.

10. **Setback from wetlands.** Utility-scale solar energy systems shall be at least ~~two hundred~~fifty (~~5200~~) feet from ~~the boundary of any lake, drain, wetland or other surface water body~~the edge of any wetland, or any shoreline or drain easement. The Planning Commission shall have the authority to require up to one hundred fifty (150) feet setback, at the Commission's discretion.

11. **Sound.** The sound pressure level of a utility-scale solar energy system and all ancillary solar equipment shall not exceed 45 dB(A) at the property line of adjacent non-participating properties or the exterior of any non-participating habitable structure, whichever is closer. The site plan shall include

modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard.

12. **Lighting.** Utility-scale solar energy system lighting shall be limited to inverter and/or substation locations only. Any lighting shall be directed downward and be placed to keep light on-site and glare away from adjacent properties, bodies of water, and adjacent roadways. Flashing or intermittent lights are prohibited.

13. **Groundcover.** A utility-scale solar energy system shall include the installation of ground cover vegetation maintained for the duration of operation until the site is decommissioned. A ground cover vegetation establishment and management plan shall be submitted as part of the site plan.

    a. Properties bound by a Farmland Development Rights Act (PA 116) Agreement must follow the Michigan Department of Agriculture and Rural Development's Policy for allowing commercial solar panel development on PA 116 lands.
    b. Ground cover at properties not enrolled in PA 116 shall meet one or more of the following types of Dual Use, as defined in this Ordinance, to promote ecological benefits:

- Pollinator Habitat
- Conservation Cover
- Forage/Grazing
- Agrivoltaics

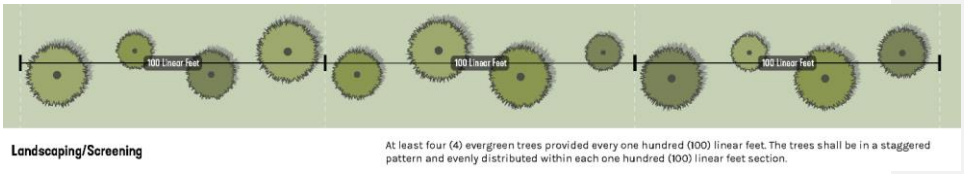
14. **Drainage.** Drainage on the site shall be maintained in a manner consistent with, or improved upon, existing natural drainage patterns. Any disturbance to drainage or water management practices must be managed within the property and on-site, in order to not negatively impact surrounding properties as a result of the development. This shall be maintained for the duration of the operation and shall be able to be returned to pre-existing conditions following decommissioning. Any existing drainage tiles that are identified on the property shall be shown on the as-built drawings submitted following construction.

15. **Wildlife Corridors.** Utility-scale solar energy system developments shall have access corridors for wildlife to navigate through the development. Applicants shall demonstrate within their site plan means for allowing wildlife corridors throughout the site, which may include natural patterns, breaks in the fencing, and other means for allowing movement of migratory animals and other wildlife. ~~Corridors shall be provided with a break in the fencing every one-thousand (1,000) feet and shall be kept open to allow for movement of migratory animals and other wildlife. This may be modified by the Planning Commission as part of the special land use permit based on site-specific considerations.~~

16. **Landscaping/Screening.** Landscaping shall be provided in accordance with the standards required in Section 6.16 Required Landscaping and Screening, as well as the following additional screening requirements if determined appropriate by the Planning Commission:

    a. At least four (4) evergreen trees provided every one hundred (100) linear feet. The trees shall be in a staggered pattern and evenly distributed within each one hundred (100) linear feet section, as shown in Figure 6.26.1. Trees shall be planted outside of the fencing.
    b. Each evergreen tree shall have a minimum mature height of fifteen (15) height and have a minimum height of seven (7) feet at the time it is planted.
    c. Landscaping shall be installed and inspected following project completion and prior to energy generation within the project. Landscaping shall be maintained in accordance with Section 6.16(E) of this Ordinance.

Figure 6.26.1 Landscaping/Screening



17. **Signage**. Signage shall be permitted in accordance with Article 17. Signage shall be required to identify the owner and provide a 24-hour emergency contact phone number.

18. **Agricultural Protection**. Utility-scale solar energy systems shall be sited to minimize impacts to agricultural production, including the following:
    a. Systems shall be sited to minimize land disturbance or clearing except for minimally necessary. Topsoil shall be retained on-site.
    b. Any access drives shall be designed to minimize extent of soil disturbance, water runoff, and soil compaction.

19. **PA 116 Farmland Development Rights Program.** Per the Michigan Department of Agriculture and Rural Development (MDARD), land enrolled in the PA 116 program may be permitted to participate in solar energy development subject to MDARD policy and requirements. Per MDARD standards, this land must be able to be returned to agricultural uses following the end of the solar development agreement or if/when the solar development is decommissioned for any reason.

20. **Decommissioning.** A decommissioning plan is required at the time of application to be reviewed and approved by the Planning Commission.

a. The decommissioning plan shall include:

- The anticipated manner in which the project will be decommissioned, including a description of the process for removal of all structures and foundations, restoration of soil to a depth of four (4) feet and vegetation, and how all above-grade and below-grade improvements will be removed, retained, or restored for viable reuse of the property consistent with the zoning district.
- The projected decommissioning costs for removal of the system (net of salvage value in current dollars) and site restoration/soil stabilization, less the amount of the surety bond posted with the State of Michigan for decommissioning of panels if installed on PA 116 land.
- The method of ensuring that funds will be available for site decommissioning and stabilization. A financial security guarantee in an amount determined by the Township Board, based off of the decommissioning cost estimate provided, is required. This financial security guarantee must be posted at the time of receiving a construction permit for the system. The security shall be in the form of a cash bond, irrevocable bank letter of credit, or performance bond in a form approved by the Township. The estimate shall be prepared by the engineer for the applicant and shall be subject to approval by the Township.

b. A review of the amount of the performance guarantee based on inflation, salvage value, and current removal costs shall be reviewed every three (3) years, for the life of the project, and approved by the Conway Township Board. Updated costs estimates based on these conditions shall be provided by the applicant for review. The applicant shall provide escrow funds, in an amount determined by the Planning Commission, for the Township to review the updated cost estimates.

~~c.~~ A utility-scale solar energy system owner may at any time ~~p.~~ ~~d. P~~roceed with the decommissioning plan approved by the Planning Commission and remove the system as indicated in the most recent approved plan.~~;~~

c.

d. Any proposed amendment to the decommissioning plan ~~with~~ shall be presented to the Planning Commission for approval. ~~and proceed according to the revised plan.~~

21. **Abandonment.** In the event that a utility-scale solar energy system has been abandoned (meaning not having been in operation for a period of one year without a waiver from the Planning Commission), the system shall be removed by the applicant or the property owner and the site shall be stabilized and

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re-vegetated, in compliance with the approved decommissioning plan. If the abandoned system is not removed or repaired, amongst other available remedies, the Township may pursue legal action against the applicant and property owner to have the system removed and assess its cost to the tax roll of the subject parcel. The applicant and property owner shall be responsible for the payment of any costs and attorney's fees incurred by the Township in securing removal of the structure. The Township may utilize the benefit of any financial security being held under this Section to offset its cost. As a condition of approval, the applicant and property owner shall give permission to the Township to enter the parcel of land for this purpose.

22. **Annual Reports.** For a utility-scale solar energy system, an annual report shall be submitted to the Planning Commission by a date determined at the time of special land use approval. The annual report shall include an update on electricity generation by the project, as well as document all complaints received regarding the utility-scale solar energy system along with the status of complaint resolutions and the actions taken to mitigate the complaints.

23. **Additional approvals and agency reviews.** The following approval and agency reviews shall be required, as applicable:

    a. Local Fire Chief;
    b. Department of Environment, Great Lakes, and Energy (EGLE);
    c. Livingston County Drain Commission;
    d. Livingston County Road Commission;
    e. Livingston County Environmental Health;
    f. Federal Aviation Administration (FAA);
    g. Local Airport Zoning (if applicable);
    h. Building Department;
    i. Tax Assessor.

24. **Operations Agreement.** The applicant shall provide the Planning Commission with an operations agreement, which sets forth the operations parameters, the name and contact information of the certified operator, inspection protocol, emergency procedures and general safety documentation. It shall be a condition of approval that the Zoning Administrator shall be notified and provided copies of any changes.

25. **Indemnity/Insurance.** The Township shall be indemnified from all third-party claims for personal or property damage arising from the Developer's negligent and/or intentional acts and/or omissions during construction, maintenance, and decommissioning of the utility-scale solar energy system and shall be listed as an additional insured on applicable insurance policies

during the life of the project.

26. **Maintenance and Repair.** Repair, replacement, and maintenance of components is permitted without the need for a new special land use permit. Proposals to change the project footprint of an existing system shall be considered a new application.

27. **Site Plan Requirements.** Utility-scale solar energy systems are subject to submittal and approval of a ~~conceptual layout plan for Planning Commission approval, followed by a formal~~ site plan ~~submission~~ meeting all requirements in Article 14 Site Plan Review. Prior to formal site plan submission, applicants may submit an optional conceptual layout plan to the Planning Commission for discussion and feedback, Special Land Use permits shall be applied for at the time of formal site plan submission.

    a. **Optional Conceptual Layout Plan.** For utility-scale solar energy systems, applicants may submit an optional conceptual layout plan for ~~shall be submitted and~~ reviewed prior to submission of a formal site plan. The conceptual site plan ~~shall~~ may be reviewed by the Planning Commission to allow for discussion and feedback. ~~The conceptual plan must be approved by the Planning Commission before a formal site plan submission is made.~~ The following information ~~is required to~~may be shown on a conceptual layout plan:

- General parcel information, as required by Section 14.03(A) General Information, as applicable
- Existing topography of the site shown at two (2) foot contour intervals with existing surface drainage patterns indicated
- Proposed plans for site grading and drainage management
- General landscaping plan, including proposed details for screening
- The proposed location and layout of all solar arrays in the solar energy system
- The proposed location and layout of any ancillary equipment (such as inverters), buildings, access drives, and security fencing
- Location of existing wetlands, shoreline, or drain easements

    b. **Site Plan.** Formal site plan submission for a utility-scale solar energy system must include a detailed site plan including all applicable requirements found in Section 14.03 information required of this Ordinance, except that utility-scale solar energy systems shall be submitted at a scale of 1" = 200 feet, plus the following site plan requirements:

- Location of all arrays, including dimensions and layout of

arrays, ancillary structures and equipment, utility connections, dwellings on the property and within three~~one~~-hundred (30~~1~~50) feet of the property lines, any existing and proposed structures, wiring locations, temporary and permanent access drives, fencing details, wildlife corridors, screening and landscaping detail, and any signage

- Information on where and how the utility-scale solar energy system will connect to the power grid. No utility-scale solar energy system shall be installed until evidence has been given to the Planning Commission that the electric utility company has agreed to allow the applicant to install an interconnected customer-owned generator to the grid or the applicant otherwise has a means for the wholesale or retail sales of generated electricity.
- Plan for land clearing and/or grading required for the installation and operation of the system
- Plan for ground cover establishment and management
- Anticipated construction schedule
- Sound modeling study including sound isolines extending from the sound source(s) to the property lines
- A decommissioning plan in accordance with 6.26.D(20~~1~~8)
- The location of prime farmland, as defined by the U.S. Department of Agriculture, Natural Resources Conservation Service – Web Soil Survey, to ensure agricultural protection in accordance with Section 6.26.D(16).
- Additional studies may be required by the Planning Commission if reasonably related to the standards of this Ordinance as applied to the application, including but not limited to:
    - Visual Impact Assessment: A technical analysis by a third party qualified professional of the visual impacts of the proposed project, including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like (including proposed landscaping and other screening measures), a description of potential project impacts, and mitigation measures that would help to reduce the visual impacts created by the project.
    - Environmental Analysis: An analysis by a third-party qualified professional to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, wildlife, endangered and threated species. If required, the analysis shall identify all appropriate measures to minimize, eliminate or mitigate adverse impacts identified and show those measures on the site plan, where

applicable.

- Stormwater Study: An analysis by a third-party qualified professional that takes into account the proposed layout of the utility-scale solar energy system and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain event. Percolation tests or site-specific soil information shall be provided to demonstrate infiltration on-site without the use of engineered solutions.
- Glare Study: An analysis by a third-party qualified professional to determine if glare from the utility-scale solar energy system will be visible from nearby residents and roadways. If required, the analysis shall consider the changing position of the sun throughout the day and year, and its influences on the utility-scale solar energy system.

c. Final site plan approval shall only be granted once all necessary governmental approvals have been obtained. Planning Commission approval is conditioned upon approval from all other agencies.

d. **Modifications of approved site plan.** Any modifications, revisions, or changes to an approved site plan shall be considered either a minor or major site plan amendment and must follow the standards of Section 14.08 Amendment of an Approved Site Plan.

- **Major Changes.** Major site plan changes considered major include those listed in Section 14.08(C), or the following:
  - Changes of location of arrays, fencing, buildings, or ancillary equipment by more than 10 feet.
  - An increase in height of solar panels.
- **Minor Changes.** Minor site plan changes considered minor include those listed in Section 14.08(D), or the following:
  - Changes of location of arrays, fencing, buildings, or ancillary equipment by less than 10 feet.

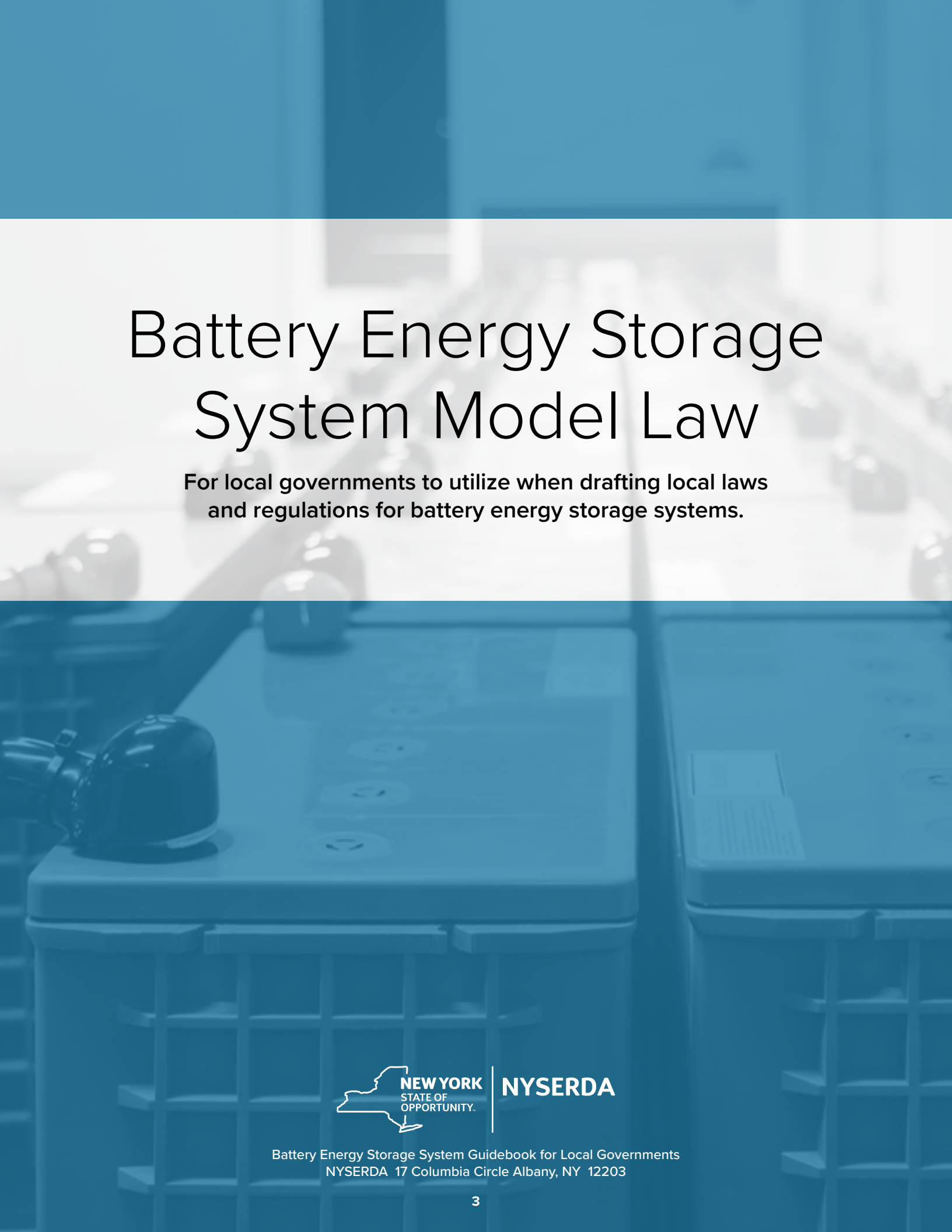
e. **Application Fee & Escrow Required.** An applicant for a utility-scale solar energy system must pay applicable application fees according to the Conway Township fee schedule. An escrow account shall be set up when Special Land Use application is filed to cover costs and expenses associated with the review and approval process.

28. **As-Built Drawings.** A set of as-built drawings shall be submitted to the Township following project completion and prior to energy generation within the project.

E. Solar Access Requirements. When a solar energy collection system is installed on a lot, accessory structures or vegetation on an abutting lot shall not be located so as to block the solar collector's access to solar

energy. The portion of a solar collector that is protected is the portion which is located so as not to be shaded between the hours of 10:00am and 3:00pm by a hypothetical twelve (12) foot obstruction located on the lot line.

F. Solar Access Exemptions. Structures or vegetation existing on an abutting lot at the time of installation of the solar energy collection system, or the effective date of this ordinance, whichever is later is exempt from subsection (E). above. Said subjection described in subsection (E) above controls any structure erected on, or vegetation planted in, abutting lots after the installation of the solar energy collection system.



Battery Energy Storage System Model Law

For local governments to utilize when drafting local laws and regulations for battery energy storage systems.

NEW YORK STATE OF OPPORTUNITY. | NYSERDA

Battery Energy Storage System Guidebook for Local Governments
NYSERDA 17 Columbia Circle Albany, NY 12203

Section Contents

Overview

The Model Law is intended to help local government officials and AHJs adopt legislation and regulations to responsibly accommodate battery energy storage systems in their communities. The Model Law lays out procedural frameworks and substantive requirements for residential, commercial, and utility-scale battery energy storage systems.

The workable version of this document can be found at nyserda.ny.gov/Energy-Storage-Guidebook, under Battery Energy Storage System Model Law tab.

1. Instructions

1. This Model Law can be adopted by the governing board of cities, towns, and villages (hereinafter "local governments" or "municipalities") to regulate the installation, operation, maintenance, and decommissioning of battery energy storage systems. The Model Law is intended to be an "all-inclusive" local law, regulating the subject of battery energy storage systems under typical zoning and land use regulations and it includes the process for compliance with the State Environmental Quality Review Act. Municipalities should review this Model Law, examine their local laws and regulations and the types, size range and number of battery energy storage system projects proposed, and adopt a local law addressing the aspects of battery energy storage system development that make the most sense for each municipality, deleting, modifying, or adding other provisions as appropriate.
2. This Model Law references a "Battery Energy Storage System Model Permit" that is available as part of NYSERDA's Battery Energy Storage Guidebook. The Model Permit is intended to help local government officials and AHJs establish the minimum submittal requirements for electrical and structural plan review that are necessary when permitting residential and small commercial battery energy storage systems.
3. In some cases, there may be multiple approaches to regulate a certain aspect of battery energy storage systems. The word "OR" has been placed in the text of the model law to indicate these options. Municipalities should choose the option that works best for their communities. The content provided in brackets and highlighted is optional. Depending on local circumstances, a municipality may want to include this content or choose to adopt a different standard.
4. The Model Law is not intended for adoption precisely as it is written. It is intended to be advisory only, and users should not rely upon it as legal advice. A municipality is not required to adopt this Model Law. Municipal officials are urged to seek legal advice from their attorneys before enacting a battery energy storage system law. Municipalities must carefully consider how the language in this Model Law may be modified to suit local conditions, comprehensive plans, and existing land use and zoning provisions.

5. Before enacting this Model Law, a comprehensive plan outlining the goals and policies for the installation, operation, maintenance, and decommissioning of battery energy storage systems must be adopted by the local governing board (city or common council, town board, village board of trustees). Some local governing boards can satisfy this requirement by updating an existing comprehensive plan while others must adopt a new comprehensive plan. Suggestions on how local governing boards can develop and adopt in their existing or new comprehensive plans battery energy storage system friendly policies and plans that provide local protection are listed below:

   A. Adopt a resolution or policy statement that outlines a strategy for municipal-wide battery energy storage system development. The chief executive officer of a local government (like a town supervisor or city or village mayor) may choose to issue in accordance with its local charter or other valid local law or regulations an executive order, proclamation or other declaration to advance battery energy storage system development.

   B. Appoint a Battery Energy Storage Task Force ("Task Force") that represents all interested stakeholders, including residents, businesses, interested non-profit organizations, the battery energy storage industry, utilities, and relevant municipal officials and staff to prepare an action plan, adopt or amend a comprehensive plan to include battery energy storage system planning goals and actions, and develop local laws and/or other regulations to ensure the orderly development of battery energy storage system projects.

   C. Charge the Task Force with conducting meetings on a communitywide basis to involve all key stakeholders, gather all available ideas, identify divergent groups and views, and secure support from the entire community. The Task Force should also conduct studies and determine whether existing policies, plans, and land use regulations require amendments to remove barriers to and facilitate battery energy storage system development goals.

   D. Establish a training program for local staff and land use boards. Municipalities are encouraged to utilize State and Federal technical assistance and grants for training programs when available.

   E. Partner with adjacent communities to adopt compatible policies, plan components, and zoning provisions for battery energy storage system projects. County or regional planning agencies may also advise participating local governments on locally addressing these issues.

2. Model Law

1. Authority

This Battery Energy Storage System Law is adopted pursuant to Article IX of the New York State Constitution, §2(c)(6) and (10), New York Statute of Local Governments, § 10 (1) and (7); [Select one: sections 261-263 of the Town Law / sections 7-700 through 7-704 of the Village Law / sections 19 and 20 of the City Law and section 10 of the Municipal Home Rule Law] of the State of New York, which authorize the [Village/Town/City] to adopt zoning provisions that advance and protect the health, safety and welfare of the community.

2. Statement of Purpose

This Battery Energy Storage System Law is adopted to advance and protect the public health, safety, welfare, and quality of life of [Village/Town/City] by creating regulations for the installation and use of battery energy storage systems, with the following objectives:

A. To provide a regulatory scheme for the designation of properties suitable for the location, construction and operation of battery energy storage systems;

B. To ensure compatible land uses in the vicinity of the areas affected by battery energy storage systems;

C. To mitigate the impacts of battery energy storage systems on environmental resources such as important agricultural lands, forests, wildlife and other protected resources; and

D. To create synergy between battery energy storage system development and [other stated goals of the community pursuant to its Comprehensive Plan].

3. Definitions

As used in this [Article/Chapter], the following terms shall have the meanings indicated:

ANSI: American National Standards Institute

BATTERY(IES): A single cell or a group of cells connected together electrically in series, in parallel, or a combination of both, which can charge, discharge, and store energy electrochemically. For the purposes of this law, batteries utilized in consumer products are excluded from these requirements.

BATTERY ENERGY STORAGE MANAGEMENT SYSTEM: An electronic system that protects energy storage systems from operating outside their safe operating parameters and disconnects electrical power to the energy storage system or places it in a safe condition if potentially hazardous temperatures or other conditions are detected.

BATTERY ENERGY STORAGE SYSTEM: One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery or an electric motor vehicle. A battery energy storage system is classified as a Tier 1 or Tier 2 Battery Energy Storage System as follows:

A. Tier 1 Battery Energy Storage Systems have an aggregate energy capacity less than or equal to 600kWh and, if in a room or enclosed area, consist of only a single energy storage system technology.

B. Tier 2 Battery Energy Storage Systems have an aggregate energy capacity greater than 600kWh or are comprised of more than one storage battery technology in a room or enclosed area.

CELL: The basic electrochemical unit, characterized by an anode and a cathode, used to receive, store, and deliver electrical energy.

COMMISSIONING: A systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

DEDICATED-USE BUILDING: A building that is built for the primary intention of housing battery energy storage system equipment, is classified as Group F-1 occupancy as defined in the International Building Code, and complies with the following:

1) The building's only use is battery energy storage, energy generation, and other electrical grid-related operations.
2) No other occupancy types are permitted in the building.
3) Occupants in the rooms and areas containing battery energy storage systems are limited to personnel that operate, maintain, service, test, and repair the battery energy storage system and other energy systems.
4) Administrative and support personnel are permitted in areas within the buildings that do not contain battery energy storage system, provided the following:
    a. The areas do not occupy more than 10 percent of the building area of the story in which they are located.
    b. A means of egress is provided from the administrative and support use areas to the public way that does not require occupants to traverse through areas containing battery energy storage systems or other energy system equipment.

ENERGY CODE: The New York State Energy Conservation Construction Code adopted pursuant to Article 11 of the Energy Law, as currently in effect and as hereafter amended from time to time.

FIRE CODE: The fire code section of the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL): A U.S. Department of Labor designation recognizing a private sector organization to perform certification for certain products to ensure that they meet the requirements of both the construction and general industry OSHA electrical standards.

NEC: National Electric Code.

NFPA: National Fire Protection Association.

NON-DEDICATED-USE BUILDING: All buildings that contain a battery energy storage system and do not comply with the dedicated-use building requirements.

NON-PARTICIPATING PROPERTY: Any property that is not a participating property.

NON-PARTICIPATING RESIDENCE: Any residence located on non-participating property.

OCCUPIED COMMUNITY BUILDING: Any building in Occupancy Group A, B, E, I, R, as defined in the International Building Code, including but not limited to schools, colleges, daycare facilities, hospitals, correctional facilities, public libraries, theaters, stadiums, apartments, hotels, and houses of worship.

PARTICIPATING PROPERTY: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the battery energy storage system owner (or affiliate) regardless of whether any part of a battery energy storage system is constructed on the property.

UNIFORM CODE: the New York State Uniform Fire Prevention and Building Code adopted pursuant to Article 18 of the Executive Law, as currently in effect and as hereafter amended from time to time.

4. Applicability

A. The requirements of this Local Law shall apply to all battery energy storage systems permitted, installed, or modified in [Village/Town/City] after the effective date of this Local Law, excluding general maintenance and repair.

B. Battery energy storage systems constructed or installed prior to the effective date of this Local Law shall not be required to meet the requirements of this Local Law.

C. Modifications to, retrofits or replacements of an existing battery energy storage system that increase the total battery energy storage system designed discharge duration or power rating shall be subject to this Local Law.

5. General Requirements

A. A building permit and an electrical permit shall be required for installation of all battery energy storage systems.

B. Issuance of permits and approvals by the [Reviewing Board] shall include review pursuant to the State Environmental Quality Review Act [ECL Article 8 and its implementing regulations at 6 NYCRR Part 617 ("SEQRA")].

C. All battery energy storage systems, all Dedicated Use Buildings, and all other buildings or structures that (1) contain or are otherwise associated with a battery energy storage system and (2) subject to the Uniform Code and/or the Energy Code shall be designed, erected, and installed in accordance with all applicable provisions of the Uniform Code, all applicable provisions of the Energy Code, and all applicable provisions of the codes, regulations, and industry standards as referenced in the Uniform Code, the Energy Code, and the [Village/Town/City] Code.

6. Permitting Requirements for Tier 1 Battery Energy Storage Systems

Tier 1 Battery Energy Storage Systems shall be permitted in all zoning districts, subject to the Uniform Code and the "Battery Energy Storage System Permit," and exempt from site plan review.

7. Permitting Requirements for Tier 2 Battery Energy Storage Systems

Tier 2 Battery Energy Storage Systems are permitted through the issuance of a [special use permit] within the [XXXXXXXXXXXXX, XXXXXXXXXX, XXXXXXXXXX] zoning districts, and shall be subject to the Uniform Code and the site plan application requirements set forth in this Section.

A. Applications for the installation of Tier 2 Battery Energy Storage System shall be:

1) reviewed by the [Code Enforcement/Zoning Enforcement Officer or Reviewing Board] for completeness. An application shall be complete when it addresses all matters listed in this Local Law including, but not necessarily limited to, (i) compliance with all applicable provisions of the Uniform Code and all applicable provisions of the Energy Code and (ii) matters relating to the proposed battery energy storage system and Floodplain, Utility Lines and Electrical Circuitry, Signage, Lighting, Vegetation and Tree-cutting, Noise, Decommissioning, Site Plan and Development, Special Use and Development, Ownership Changes, Safety, and Permit Time Frame and Abandonment. Applicants shall be advised within [10] business days of the completeness of their application or any deficiencies that must be addressed prior to substantive review.

2) subject to a public hearing to hear all comments for and against the application. The [Reviewing Board] of the [Village/Town/City] shall have a notice printed in a newspaper of general circulation in the [Village/Town/City] at least [5] days in advance of such hearing. Applicants shall have delivered the notice by first class mail to adjoining landowners or landowners within [200] feet of the property at least [10] days prior to such a hearing. Proof of mailing shall be provided to the [Reviewing Board] at the public hearing.

3) referred to the [County Planning Department] pursuant to General Municipal Law § 239-m if required.

4) upon closing of the public hearing, the [Reviewing Board] shall take action on the application within 62 days of the public hearing, which can include approval, approval with conditions, or denial. The 62-day period may be extended upon consent by both the [Reviewing Board] and Applicant.

B. Utility Lines and Electrical Circuitry. All on-site utility lines shall be placed underground to the extent feasible and as permitted by the serving utility, with the exception of the main service connection at the utility company right-of-way and any new interconnection equipment, including without limitation any poles, with new easements and right-of-way.

C. Signage.

1) The signage shall be in compliance with ANSI Z535 and shall include the type of technology associated with the battery energy storage systems, any special hazards associated, the type of suppression system installed in the area of battery energy storage systems, and 24-hour emergency contact information, including reach-back phone number.

2) As required by the NEC, disconnect and other emergency shutoff information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

D. Lighting. Lighting of the battery energy storage systems shall be limited to that minimally required for safety and operational purposes and shall be reasonably shielded and downcast from abutting properties.

E. Vegetation and tree-cutting. Areas within [10] feet on each side of Tier 2 Battery Energy Storage Systems shall be cleared of combustible vegetation and other combustible growth. Single specimens of trees, shrubbery, or cultivated ground cover such as green grass, ivy, succulents, or similar plants used as ground covers shall be permitted to be exempt provided that they do not form a means of readily transmitting fire. Removal of trees should be minimized to the extent possible.

F. Noise. The [1-hour] average noise generated from the battery energy storage systems, components, and associated ancillary equipment shall not exceed a noise level of [60] dBA as measured at the outside wall of any non-participating residence or occupied community building. Applicants may submit equipment and component manufacturers noise ratings to demonstrate compliance. The applicant may be required to provide Operating Sound Pressure Level measurements from a reasonable number of sampled locations at the perimeter of the battery energy storage system to demonstrate compliance with this standard.

G. Decommissioning.

1) Decommissioning Plan. The applicant shall submit a decommissioning plan, developed in accordance with the Uniform Code, to be implemented upon abandonment and/or in conjunction with removal from the facility. The decommissioning plan shall include:

   a. A narrative description of the activities to be accomplished, including who will perform that activity and at what point in time, for complete physical removal of all battery energy storage system components, structures, equipment, security barriers, and transmission lines from the site;

   b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations;

   c. The anticipated life of the battery energy storage system;

   d. The estimated decommissioning costs and how said estimate was determined;

   e. The method of ensuring that funds will be available for decommissioning and restoration;

   f. The method by which the decommissioning cost will be kept current;

   g. The manner in which the site will be restored, including a description of how any changes to the surrounding areas and other systems adjacent to the battery energy storage system, such as, but not limited to, structural elements, building penetrations, means of egress, and required fire detection suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed; and

   h. A listing of any contingencies for removing an intact operational energy storage system from service, and for removing an energy storage system from service that has been damaged by a fire or other event.

2) Decommissioning Fund. The owner and/or operator of the energy storage system, shall continuously maintain a fund or bond payable to the [Village/Town/City], in a form approved by the [Village/Town/City] for the removal of the battery energy storage system, in an amount to be determined by the [Village/Town/City], for the period of the life of the facility. This fund may consist of a letter of credit from a State of New York licensed-financial institution. All costs of the financial security shall be borne by the applicant.

H. Site plan application. For a Tier 2 Battery Energy Storage System requiring a Special Use Permit, site plan approval shall be required. Any site plan application shall include the following information:

1) Property lines and physical features, including roads, for the project site.

2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.

3) A [one- or three-line] electrical diagram detailing the battery energy storage system layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.

4) A preliminary equipment specification sheet that documents the proposed battery energy storage system components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of building permit.

5) Name, address, and contact information of proposed or potential system installer and the owner and/or operator of the battery energy storage system. Such information of the final system installer shall be submitted prior to the issuance of building permit.

6) Name, address, phone number, and signature of the project Applicant, as well as all the property owners, demonstrating their consent to the application and the use of the property for the battery energy storage system.

7) Zoning district designation for the parcel(s) of land comprising the project site.

8) Commissioning Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in proper working condition per requirements set forth in the Uniform Code. Where commissioning is required by the Uniform Code, Battery energy storage system commissioning shall be conducted by a New York State (NYS) Licensed Professional Engineer after the installation is complete but prior to final inspection and approval. A corrective action plan shall be developed for any open or continuing issues that are allowed to be continued after commissioning. A report describing the results of the system commissioning and including the results of the initial acceptance testing required in the Uniform Code shall be provided to [Code Enforcement/Zoning Enforcement Officer or Reviewing Board] prior to final inspection and approval and maintained at an approved on-site location.

9) Fire Safety Compliance Plan. Such plan shall document and verify that the system and its associated controls and safety systems are in compliance with the Uniform Code.

10) Operation and Maintenance Manual. Such plan shall describe continuing battery energy storage system maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth in the Uniform Code.

11) Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Planning Board.

12) Prior to the issuance of the building permit or final approval by the [Reviewing Board], but not required as part of the application, engineering documents must be signed and sealed by a NYS Licensed Professional Engineer.

13) Emergency Operations Plan. A copy of the approved Emergency Operations Plan shall be given to the system owner, the local fire department, and local fire code official. A permanent copy shall also be placed in an approved location to be accessible to facility personnel, fire code officials, and emergency responders. The emergency operations plan shall include the following information:

   a. Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.

   b. Procedures for inspection and testing of associated alarms, interlocks, and controls.

   c. Procedures to be followed in response to notifications from the Battery Energy Storage Management System, when provided, that could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing agreed upon notification to fire department personnel for potentially hazardous conditions in the event of a system failure.

d. Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions. Procedures can include sounding the alarm, notifying the fire department, evacuating personnel, de-energizing equipment, and controlling and extinguishing the fire.

e. Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required.

f. Procedures for dealing with battery energy storage system equipment damaged in a fire or other emergency event, including maintaining contact information for personnel qualified to safely remove damaged battery energy storage system equipment from the facility.

g. Other procedures as determined necessary by the [Village/Town/City] to provide for the safety of occupants, neighboring properties, and emergency responders.

h. Procedures and schedules for conducting drills of these procedures and for training local first responders on the contents of the plan and appropriate response procedures.

I. Special Use Permit Standards.

1) Setbacks. Tier 2 Battery Energy Storage Systems shall comply with the setback requirements of the underlying zoning district for principal structures.

2) Height. Tier 2 Battery Energy Storage Systems shall comply with the building height limitations for principal structures of the underlying zoning district.

3) Fencing Requirements. Tier 2 Battery Energy Storage Systems, including all mechanical equipment, shall be enclosed by a [7-foot-high] fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building and not interfering with ventilation or exhaust ports.

4) Screening and Visibility. Tier 2 Battery Energy Storage Systems shall have views minimized from adjacent properties to the extent reasonably practicable using architectural features, earth berms, landscaping, or other screening methods that will harmonize with the character of the property and surrounding area and not interfering with ventilation or exhaust ports.

J. Ownership Changes. If the owner of the battery energy storage system changes or the owner of the property changes, the special use permit shall remain in effect, provided that the successor owner or operator assumes in writing all of the obligations of the special use permit, site plan approval, and decommissioning plan. A new owner or operator of the battery energy storage system shall notify the [Code Enforcement/Zoning Enforcement Officer] of such change in ownership or operator within [30] days of the ownership change. A new owner or operator must provide such notification to the [Code Enforcement/Zoning Enforcement Officer] in writing. The special use permit and all other local approvals for the battery energy storage system would be void if a new owner or operator fails to provide written notification to the [Code Enforcement/Zoning Enforcement Officer] in the required timeframe. Reinstatement of a void special use permit will be subject to the same review and approval processes for new applications under this Local Law.

8. Safety

A. System Certification. Battery energy storage systems and equipment shall be listed by a Nationally Recognized Testing Laboratory to UL 9540 (Standard for battery energy storage systems and Equipment) or approved equivalent, with subcomponents meeting each of the following standards as applicable:

1) UL 1973 (Standard for Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail Applications),

2) UL 1642 (Standard for Lithium Batteries),

3) UL 1741 or UL 62109 (Inverters and Power Converters),

4) Certified under the applicable electrical, building, and fire prevention codes as required.

5) Alternatively, field evaluation by an approved testing laboratory for compliance with UL 9540 (or approved equivalent) and applicable codes, regulations and safety standards may be used to meet system certification requirements.

B. Site Access. Battery energy storage systems shall be maintained in good working order and in accordance with industry standards. Site access shall be maintained, including snow removal at a level acceptable to the local fire department and, if the Tier 2 Battery Energy Storage System is located in an ambulance district, the local ambulance corps.

C. Battery energy storage systems, components, and associated ancillary equipment shall have required working space clearances, and electrical circuitry shall be within weatherproof enclosures marked with the environmental rating suitable for the type of exposure in compliance with NFPA 70.

9. Permit Time Frame and Abandonment

A. The Special Use Permit and site plan approval for a battery energy storage system shall be valid for a period of [24] months, provided that a building permit is issued for construction [and/or] construction is commenced. In the event construction is not completed in accordance with the final site plan, as may have been amended and approved, as required by the [Reviewing Board], within [24] months after approval, [Village/Town/City] may extend the time to complete construction for [180] days. If the owner and/or operator fails to perform substantial construction after [36] months, the approvals shall expire.

B. The battery energy storage system shall be considered abandoned when it ceases to operate consistently for [more than one year]. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the [Village/Town/City] may, at its discretion, enter the property and utilize the available bond and/or security for the removal of a Tier 2 Battery Energy Storage System and restoration of the site in accordance with the decommissioning plan.

10. Enforcement

Any violation of this Battery Energy Storage System Law shall be subject to the same enforcement requirements, including the civil and criminal penalties, provided for in the zoning or land use regulations of [Village/Town/City].

11. Severability

The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase, which shall remain in full force and effect.

Questions?

If you have any questions about the Battery Energy Storage System Model Law, please email questions to cleanenergyhelp@nyserda.ny.gov or request free technical assistance at nyserda.ny.gov/Energy-Storage-Guidebook. The NYSERDA team looks forward to partnering with communities across the State.

Assembly Site Tour Question & Comments: Friday August 26, 2022

Question	Response
How is vegetation underneath the panels selected? How is it maintained? Is it pollinator-friendly?	Prior to the start of construction, we install a mixture of native grasses and pollinators that are designed to be slow growing. This natural vegetation is mowed a few times every year. It is also designed to benefit pollinating insects and birds, while also improving water quality through the reduced usage of fertilizer and pesticides. Ranger Power's future projects in Michigan will be designed and planted to achieve a score of at least 76 on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.
How are visual impacts on neighboring landowners mitigated?	The Assembly Solar project installed evergreen landscaping to obscure the view of the project from neighboring residences. The trees in the vegetative buffer will be selected from the recommendations and consultation with local landscaping and consultants with expertise in local vegetation and in accordance with local ordinance standards.
What parts of the solar project generate sound? How much?	Solar panels make no noise. The trackers that tilt the solar panels throughout the day make a very low sound that is inaudible unless standing immediately next to the solar panels. The project will use inverters to convert the DC power produced by the panels to transmission-grid compatible AC power. These inverters make a slight hum when in use during the day, which is caused by a fan. This sound dissipates rapidly as you move away from the inverters. The Shiawassee County Solar Ordinance allows for a maximum of 40 dB(A) at the exterior of any habitable structure.
What are the components that make up a solar panel? Where are the panels and materials sourced from?	Solar panels are made of aluminum, tempered glass, silicon solar cells, and wiring. Currently, most panels are produced in Asian countries. However, demand for panels is spurring development of additional production facilities in the US.
What do participating landowners do once the project moved into construction?	In Michigan, most participants in utility-scale solar projects are active crop farmers. Often times, farmers choose to include a portion of their land in a solar project while continuing to farm the remaining majority of it. Solar projects provide farmers with a reliable, consistent, and long-term source of revenue which is especially helpful in times of increasing crop market and weather volatility.
How does decommissioning work? How is the land restored back to its original agricultural use?	Given the simple design of a solar project, the decommissioning process is fairly quick and straightforward. The project is first deenergized and then all parts of the project are dismantled, removed, and recycled or properly disposed of. The panels and other components, such as steel piles and wire, are recycled, and the land is returned to a condition suitable for future agriculture use.
Why is farmland typically used to host utility-scale solar projects?	Utility-scale solar projects require large tracts of flat, dry, open land near existing high-voltage electrical infrastructure. Farmland is uniquely suited to meet these requirements.
Why are the panels tiled?	Today, most utility-scale solar projects in the Midwest utilize bi-facial modules mounted onto single-axis trackers. These allow the panels to "tilt" throughout the day in order to maximize efficiency.
How productive are solar projects on cloudy and snowy days?	In Michigan, we are all accustomed to cloudy days. Solar technology is compatible with this weather, and, in particular, the new generation of bi-facial solar panels which are able to generate additional electricity from sunlight reflected off of snow. On especially cloudy days, solar projects are still able to generate electricity, although at a reduced amount.
Do solar panels become hot?	Like many surfaces, the panels could be warm to the touch on a hot sunny day but will return to ambient temperatures at night. Projects are designed with sufficient spacing between arrays for proper cooling to take place. Importantly, OSHA does not require workers to wear gloves while handling solar panels.
How does the PA-116 deferment process work?	The Michigan Department of Agricultural and Rural Development ("MDARD") recently amended the Farmland Development Rights Program ("PA-116") to allow solar energy facilities to be placed on lands enrolled in the Program. In order to allow for this, farmers must amend their existing PA-116 contract to defer the remaining contract term through the duration of the solar project operations in order to avoid paying back the previous seven years of tax credits. To qualify for PA 116, farmers seek PA-116 amendment approval prior to the start of construction of the solar project. Once the project has been decommissioned and the farmland has been restored, the remaining term of the PA-116 contract will resume.

Assembly Site Tour Question & Comments: Friday August 26, 2022

Do solar projects affect farm drainage? Are drain tiles impacted?	There is no significant change to drainage caused by the solar facility and projects must comply with local and state rules regarding stormwater and drainage. Solar panels are set back from ditches to allow ongoing maintenance. Existing drain tiles and ditches continue to play an important role in draining the land hosting solar panels and maintaining structural integrity so that the facility can continue to reliably generate power. Drain tile mainlines are identified before the start of construction and are avoided to the extent possible. Any impacts to drain tile mainlines during construction are repaired, replaced, or reconfigured.
How is the location of a solar project selected?	Utility-scale solar projects require large amounts of flat, dry, open land near existing high-voltage electrical infrastructure. Once an area has been determined to meet these characteristics, we must identify landowners that are willing to participate in the project. From here, a suite of environmental studies are conducted to ensure that the project is able to avoid potentially sensitive existing environmental and cultural features. Only once these various considerations have been confirmed will a project proceed with seeking required Township, County, and State-level permits.
What happens if a landowner chooses not to participate?	Participation in solar projects is completely voluntary. Typically, solar projects require the participation of several different landowner with various amounts of contiguous acreage.
Is it common to clear trees? Do projects impact wetlands?	We take an avoidance approach to developing our projects. Cutting down trees is costly, and we try to avoid it as much as possible. If we need to remove any trees, however, we would do so in the least impactful manner. Before any trees are cleared, a threatened and endangered species analysis is conducted in order to confirm the avoidance of potentially sensitive areas.
What setbacks does the project observe?	Each solar project is designed to conform with the specific requirements of local zoning ordinances. At the Assembly project, we observed the following setbacks: • 50’ from the edge of the road right of way • 40’ from the rear or side yard of a vacant lot • 200’ from habitable structures. • 25’ from jurisdictionally recognized wetlands.
How many employees constructed the Assembly Solar project? How is labor sourced for the project?	The Assembly project employed over 300 construction workers. Approximately 80% of these workers were hired locally (from within Shiawassee County).
How many employees are part of the Operations and Maintenance team?	There are approximately five full-time employees on the Operations and Maintenance team.
Is honey harvested at the Assembly Solar Project?	Yes – there are two apiaries located on the Assembly site which are designed to produce Solar Honey.
How long does the construction process take?	We estimate that project construction takes between 12-16 months.

Date: September 1, 2020
From: Sean Harris
RE: Assembly Solar Tour Follow Up and Evaluation

Hi Rob and all,

Just wanted to echo what Drew said in his email and say thanks for all the organization that went into the site tour. I'm happy to hear that the tour was valuable for the attendees when planning for these land uses in their communities.

I also wanted to follow up on a question that was raised at the tour which was what lessons we've learned. The main lesson I thought of that day was the importance of planting the correct tree species and at the correct time to reduce the mortality rate which has been an issue at Assembly. I've thought about that question more and have two more lessons learned:

- **Laydown yard location**. The construction laydown yard was located across the street from a relatively densely populated area of 6-7 non-participating residences. We received feedback from the community that they would've preferred the laydown yard to be located further from homes, which is very reasonable. Moving forward on our projects, we are voluntarily locating laydown yards at least 400-500 feet from the nearest non-participating residence. The laydown yard is where the construction trailers are, the staging area, and delivery area, so it is the busiest area during project construction so should be located further from residences.

- **Construction hours**: We received feedback that sound was generated from construction at inopportune times. Particularly, delivery trucks that would idle at the laydown yard at night. I think with the laydown yard being located further from residences, this issue would've been mitigated. However, we are also committing to work hour constraints on most projects. **This typically looks like daylight hours or 7am-6pm Monday-Saturday for heavy equipment operation, unless the construction company gets consent by the township/county to work outside these hours on an individual basis**. This reduces the nuisance of hearing construction noise at inopportune times. We try to specify that construction crews can still meet and operate light trucks outside these hours to accommodate pre and post work meetings by construction crews.

Let me know if you have any questions.

Thanks again,

Shiawassee County
Community Development

3rd Floor • Surbeck Building • 201 N. Shiawassee St. • Corunna, MI 48817-1437
Telephone: 989-743-2396 • Fax: 989-743-2393

February 5, 2019

NOTICE OF PLANNING COMMISSION ACTION

Permit Number: **PSUP18-07 & PSUP18-08**

Applicant: Assembly Solar, LLC

Owner: Multiple Property Owners

Site Location: Hazelton and Venice Townships (properties listed below)
Parcel ID# Hazelton Township: 004-25-100-001-01, 004-25-300-001-01, 004-35-200-001-02, 004-35-300-002, 004-35-300-003-04, 004-35-400-001, 004-36-100-002 & 004-36-100-002-01.
Parcel ID# Venice Township: 008-02-100-001, 008-02-100-003, 008-02-100-004, 008-02-200-001-01, 008-02-200-001-02, 008-02-200-001-03, 008-02-200-001-04, 008-02-200-001-05, 008-02-400-001, 008-11-100-001, 008-11-200-003, 008-11-400-006, 008-12-100-002, 008-12-100-009 &008-12-300-001.

Request: Special land use and site plan approval for a Commercial Solar Energy System. Ordinance. Reference: 4.3.77, Solar Energy Systems. Note: The proposed project is located in both Hazelton and Venice Townships. A special use permit is needed for each township. PSUP18-07 includes details for Hazelton Township and PSUP18-08 includes details for Venice Township.

Public Hearing: January 23, 2019

The Planning Commission officially **approved** the special use permit and site plan review application #PSUP18-07 & #PSUP18-08 as stated below:

Motion: Reno motioned to approve PSUP18-07 and PSUP18-08, ASSEMBLY SOLAR LLC (RANGER POWER), Special Land Use Permit and Final Site Plan request for a Commercial Solar Energy System to be located in Hazelton and Venice Townships, and as legally described in Addendum #1, based on the following reasoning and conditions:

Reasoning:

1. Subject to the conditions provided below, it is found that the petitioned special land use meets the general standards as provided for in Article 12 of the Ordinance.
2. Subject to the conditions provided below, it is found that the petitioned site plan for a Commercial Solar Energy System meets the general standards as provided for in Article 14 and specific use standards set forth under Section 4.3.77.
3. Additional reasoning as presented by the Planning Commission.

Conditions:

1. Provide information as noted by this staff report as having not been provided for on the site plan or in supplemental information.
2. Compliance with the rules and requirements of the SCHC, SCDC, SCRD, MDOT, MDEQ and any other Federal, State or County agency having rules and regulations for the petitioned structures, operations, or use. Any substantive change, as determined by the Community Development Department, shall be resubmitted to the Planning Commission for their review and approval.
3. Pursuant to Article 4, Section 4.3.77., Subsection 4.M.6., the petitioner shall provide a performance guarantee for the cost of decommissioning the Commercial SES project in its entirety and reclamation associated with substantially returning properties to their pre-development condition. All provisions of the above Section shall be satisfied in an agreement acceptable to the County, including funding by the petitioner of analysis to estimate decommissioning and reclamation costs.
4. A final site plan for the petitioned sub-station shall be filed for review and approval by the Planning Commission within one (1) year of an interconnection agreement being obtained by the petitioner or owner of the petitioned use.
5. Prior to the issuing of permits or authorization of construction of the petitioned use the Community Development Department shall be provided three (3) sets of a revised final site plan and supplemental information for the petitioned use to determine compliance with the Zoning Ordinance as well as the conditions of approval by the Planning Commission.
6. Compliance with the provisions of the Zoning Ordinance shall be determined by the Community Development Director.
7. A written statement that Ranger Power accepts that the typo noted in Section 4.3.77.4.M.5.I, stating "wind energy system" shall be understood as meaning "solar energy system". (Friendly amendment)
8. Additional conditions as offered by Ranger Power, as presented in a memo dated January 10, 2019, as attached as "EXHIBIT A".
9. Additional conditions as offered by Ranger Power, as presented in a memo dated January 20, 2019, as attached as "EXHIBIT B".

Second: Saxton.
Roll Call Vote: Ayes: Bonnie Reno, Walt Saxton, John Horvath, Rodrick Hall, and Bonnie Ott. **Nays:** None. **Abstentions:** Bryan Marks.
Motion Carried: 5 ayes, 0 nays.

Please refer to the following in regards to the approval or denial of a Special Use Permit:

12.2.3 Expiration of Special Use Permit:

A. A Special Use Permit shall be valid for as long as the permitted use continues in accordance with the terms stated therein, unless otherwise stated in the Special Use Permit.

B. The Planning Commission shall have the right to limit the duration of a special use where the same is of a temporary nature.

C. Unless otherwise set forth in this Ordinance, if no construction activity to initiate site development pursuant to a Special Use Permit has begun within six (6) months from the date of its issuance, then it shall automatically expire and be of no further effect or validity. In the event

of permit expiration, the Zoning Administrator shall notify the applicant, in writing that such Special Use Permit has expired.

D. If the applicant requests an extension of the permit validity prior to its expiration, the Planning Commission may extend the permit for an additional six (6) months if:

   1. It is satisfied that the owner or applicant is maintaining a good faith effort to proceed with construction and establishment of the use.

   2. No significant changes to applicable regulations governing the specific use have occurred.

   3. There have been no significant changes to surrounding property or public services. The determination of the Planning Commission shall be forwarded to the applicant with a recommended action.

E. Expiration of a Special Use Permit if the use changes: If the use of a property for which a Special Use Permit was issued is no longer for the land use authorized by either of those permits, the Special Use Permit authorization shall automatically be terminated and the property shall only be used for a use permitted in the District in which the property is located. Discontinuance of a seasonal use for which a Special Use Permit was issued is also subject to termination of the Special Use Permit, if the season passes in which the permit would normally apply and a different use is in place instead.

12.2.4 Re-Application: No application for a Special Use Permit which has been denied, wholly or in part, by the County Planning Commission shall be resubmitted until the expiration of one (1) year from the date of such denial, except on the grounds of newly discovered evidence or proof of changed conditions which is found upon inspection by the Planning Commission to be valid. A reapplication shall be processed in the same manner as the original application.

12.2.5 Requirement Compliance-Penalties: It shall be the duty and obligation of the owner(s) or operator(s) of property approved for a Special Use Permit to at all times be in compliance with the use requirements of this Ordinance and the conditions of the Special Use Permit under which their particular use is governed. Failure thereof shall be in violation of this Ordinance and subject to the penalties and remedies provided in Article 17.

12.2.6 Appeal: Appeal of a decision on a Special Use Permit and request may not be taken to the Board of Appeals.

Sincerely,

Michael C. Daly-Martin
Planner
Shiawassee County Community Development

EXHIBIT A

Stantec Consulting Services Inc.
12075 Corporate Parkway Suite 200, Mequon WI 53092-2649

January 10, 2019
File: 193705849

Attention: Matthew J. Lafferty, Land Use Planner
Shiawassee County Planning Commission
Surbeck Building
201 N. Shiawassee Street
Corunna, MI 48817

Dear Mr. Lafferty,

Reference: PSUP18-07 & PSUP18-08; Commercial Solar Energy System, Special Use Permit and Site Plan Review

On December 6, 2018, we received your Assembly Solar Project Special Use Permit and Site Plan review and report, pursuant to our application submittal, dated October 10, 2018. The review stated that some additional information is required, as detailed below. The requested information is restated as items 3.1-3.5, with our response provided in bold, relevant attachments referenced.

3. **Information Required-** The following represents information that is missing on the submitted site plan pursuant to Article 14, Site Plan Review. Some of the requested information is also requested in staff's review of compliance with Article 4, Specific Use Regulations, and Section 4.3.77, Solar Energy Systems or may be information staff anticipates that the Planning Commission will request. Additional comments may be forthcoming upon receipt of outstanding information.

   3.1 For all existing structures, note on site plan use of the structure (residential, agricultural, institutional, accessory, etc.). **Attached is the revised Figure F from the Application which depicts existing residential and agricultural structures, as requested.**

   3.2 Provide setback information for all interior access roads from property lines, drains, creeks, and rivers. **Attached is the revised site plan with setback information, as requested.** For county drains, 50% of the required right-of-way is located on each side measured from the bank of the waterway, as requested by the County Drain Commisioner.

   3.3 Provide the height of the perimeter fence, the fence material, and note if barbed wire is proposed to be placed on top of the fence. **The attached revised site plan provides detailed information regarding the perimeter fence, including the height and fence material.**

   3.4 Provide site drawing showing the setbacks and access routes of the possible back-up sub-station "Location #2" as reference in Drawing Number C-012 in the application. This site plan should contain all information as required by the Ordinance. **The attached Substation Location #2 Conceptual Site Plan depicts the location, access road and AC power lines for this substation alternative.**

Reference: **PSUP18-07 & PSUP18-08; Commercial Solar Energy System, Special Use Permit and Site Plan Review**

3.5 Identify all farm fields containing drainage tiles and provide a plan to not disrupt any drainage issues that may occur upon construction or any soil disturbance. **Assembly Solar, LLC has teamed with Great Lakes Fusion to complete a Drain Tile Management Plan (Plan) for the project, currently underway. The Plan will utilize Google Earth images and drone flights to assess and identify drain tile presence within the project footprint. This Plan will be utilized during final design and construction to allow for the placement of collector lines parallel to the drain tiles, as well as placement of solar panel I-beam support structures in between the drain tile lines. The Plan will include a description of drain tile restoration and repair, should any damage to the drain tile system occur during construction. In addition, any adjacent property impacts will also be addressed, with a 5-year limit to the repairs.**

Thank you for your complete review of the Assembly Solar Project Permit application. Please let us know if you require any further clarification. We look forward to continuing to work with the County on this exciting project.

Regards,

Stantec Consulting Services Inc.

Carol McCoy
Senior Environmental Project Manager
Phone: 262 643 9051
Fax: 262 241 4901
Carol.McCoy@stantec.com

Attachment: Figure F Revised 01/07/2019
Assembly Solar Conceptual Site Plan Revision E - 01/04/2019

c. S. Trevino
S. Harris

EXHIBIT B

January 20, 2019

Attention: Matthew J. Lafferty, Land Use Planner
Shiawassee County Planning Commission
Surbeck Building
201 N. Shiawassee Street
Corunna, MI 48817

Dear Mr. Lafferty,

Reference: PSUP18-07 & PSUP18-08; Commercial Solar Energy System, Special Use Permit and Site Plan Review

On January 14, 2019 and January 16, 2019, members of Ranger Power, representing Assembly ("Assembly") Solar, LLC, attended meetings of the Venice Township Planning Commission and the Venice Township Board of Trustees, respectively. Both the Venice Township Planning Commission and the Township Board (collectively, "Township") unanimously voted to recommend Assembly's Special Use Permit for approval by the Shiawassee County ("County") Planning Commission at its January 23 hearing, with certain recommended conditions. Assembly is submitting these comments in an effort to address the Township's recommended conditions prior to the January 23 County Planning Commission hearing.

1. "Review of decommissioning bond every 5 years to determine if adequate funding is in place."
   Assembly is amenable to this condition #1, regarding regular review of the decommissioning bond. This condition is addressed in the County's Solar Energy Systems ordinance ("Ordinance"). Section 6 (c) of the Ordinance requires annual review of the decommissioning security.

2. "On all creeks and streams except the Mistequay, set back from the bank of the stream needs to be 40 feet."
   Assembly is amenable to this condition #2 and the requested condition is reflected in the amended site plan sent to the County on January 11, 2019.

3. "All strips not being farmed need to be mowed 1 time per year in August. (including ditch banks)"
   Assembly is amenable to this condition #3. Assembly requests that this condition be clarified to ensure that only the area from the top of the bank to the fence should be maintained by Assembly.

4. "When construction starts, provide who is the contact person for any concerns or issues that may arise?"
   Assembly is amenable to this condition #4. Permanent employees will be on site and a permanent point of contact will be provided upon issuance of the special use approval/permit to any and all township and County staff and will be updated to confirm point of contact changes.

5. "Insurance on the project needs to be reviewed annually."

Assembly is amenable to this condition #5, and notes that it is already addressed in Section 3(K) of the Ordinance, which requires that liability insurance be maintained with a bond rating acceptable to the County to cover installation and operation. Additionally, Assembly is required to maintain liability insurance pursuant to its real estate agreements with individual landowners.

6. ”Provide MSDS sheets on the actual panels that will be installed before the permit is approved.”
   Assembly cannot agree to this condition #6. MSDS sheets for currently manufactured solar panels that would be considered for the project by Assembly are unavailable. Additionally, the Zoning Ordinance does not require an applicant to select and identify the type/manufacturer of the solar panel to be utilized for the project as condition of approval. The decision on the selection of the solar panel is to be made by the applicant. Such deference allows the applicant to select the solar panel that is best for the project and allows an applicant to take advantage of the constantly evolving technology applicable to the manufacturing and design of solar panels. In accordance with the Zoning Ordinance and best practices, Assembly has not selected a solar panel for this project. Please also see the discussion below regarding hazardous substances in Assembly’s response to condition #14, below.

7. ”Vegetation buffer for non participating and adjoining landowners that they have 5 years to make arrangements with Assembly Solar if vegetation buffer is desired.”
   Assembly is amenable to planting vegetation/landscaping for the purpose of screening inhabited structures located on immediately adjacent non-participating properties. Assembly is more than willing to plant landscape screening at reasonable density and reasonable height to screen the solar panels from immediately adjacent inhabited structures on non-participating properties. To the extent the owner of an inhabited structure on a non-participating property requests reasonable modifications to the landscape screen within 1 year after completion of construction, Assembly would make reasonable modifications to the landscape screen in response to such owners. Extending the time period for adjustment beyond 1 year would expose Assembly to different/new property owners and different and inconsistent demands with regard to screening which would be an unnecessary and protracted burden on Assembly. Assembly is not aware that the condition requested by the Township has been imposed on other land uses and notes that such condition is not required in the Zoning Ordinance, as such condition would create substantial uncertainty for property owners in the County.

8. ”During construction if any roads have damage, Assembly Solar is to pay for repairs, extra grading and chloride.”
   Assembly is amenable to this condition #8 and will satisfy it by entering into an agreement with the County Road Commission for the repair of roads damage as a result of project activities.

9. ”Provide Clarification on what setback is on the power company’s fence.”
   Assembly is amenable to this condition #9.

10. ”Provide Clarification on County Ordinance, Section 4.3.77 Solar Energy systems #3d-Setbacks.”
    Assembly is amenable to this condition #10.

11. ”Applicant held liable for any repair on any drain system that is on non participated land due to construction on participating land up to 5 years after completion of the project.”
    Assembly is amenable to this condition #11 subject to a three (3) year limitation from the date construction is completed and provided that written notice is provided by the owner of the non-participating property to Assembly identifying the drain tile alleged to be damaged by the installation of the solar panels. Any longer time period exposes Assembly to making repairs to drain tiles for causes unrelated to the solar panel installation. In addition, Assembly will work with all contractors to identify drain tile location and to have in a place a drain tile mitigation plan prior to the start of construction.

12. ”County to consider adding test wells to SUP at the beginning of the project.”
    Assembly cannot agree to this condition #12 for similar reasons to those detailed in Assembly’s response to condition #14. Additionally, Assembly is concerned about upstream users contaminating groundwater and Assembly being erroneously identified as the cause of the contamination. The project could be installed for up to forty (40) years, per Assembly’s real estate agreements. During that time, industrial uses unrelated to Assembly could be constructed and cause contamination that may be identified at the project location. However, Assembly will take baseline property survey and sampling measures to ensure that anything that may be identified on the property at decommissioning existed previously. Additionally, none of the county, state, or federal permits for the project require groundwater monitoring. Groundwater monitoring would be under the jurisdiction of DEQ, who has reviewed the project and did not identify any need for groundwater monitoring.

13. ”County & DEQ to have inspection schedule of said project”
    Assembly is amenable to this condition #13. Assembly is seeking a DEQ permit for drain crossings which will be inspected by the DEQ. The County is permitted to conduct inspection of the project.

14. Consider hazardous liability bond/insurance for catastrophic failure.
    Assembly cannot agree to this condition #14 as it is unnecessary and unduly burdensome on the project. Solar panels are common and ubiquitous manufactured products. They must pass rigorous safety tests and have been safely deployed throughout the country and the world for decades. Assembly is not aware of any evidence or documentation of a credible risk of hazardous contamination, nor has any such evidence or documentation been provided. As such, a “hazardous liability” bond is unwarranted by the facts. In addition, thousands of megawatts of utility-scale solar energy projects have been financed and built using crystalline solar technology and Ranger is unaware of a “hazardous liability” bond being required of any solar project. This fact strongly indicates that Assembly’s ability to secure project financing and construct the project would be negatively affected by the addition of such a condition.

    Solar panels have been deployed throughout the United States and the world for decades without any documented health effects. They have been found to be safe and do not pose a significant health hazard to the communities in which they are located (see “Health and Safety Impacts of Solar Photovoltaics,” May 2017, North Carolina Clean Energy Technology Center). In fact, Assembly will improve local health by significantly reducing harmful emissions, allowing local soils

to regenerate during the project's operations period, and by reducing sources of runoff (including fertilizers, pesticides, and other harmful chemicals) to local water resources.

Solar panels are manufactured, commodity products and are extensively tested to ensure rigorous safety and durability standards are met. Although a specific manufacturer has not yet been selected, Assembly will use Tier I crystalline silicon solar panels. The panels' crystalline silicon cells are encased within tempered glass (similar to windshield or hurricane glass), which is itself fixed within an aluminum frame. Approximately 80% of the panel's weight is attributable to the tempered glass and aluminum. Only about 5% of panel weight is attributable to the electricity generating and conducting components, primarily silicon (the second most common element in the Earth's crust). The vast majority of solar panels used for utility-scale solar energy projects today, and the solar panels to be used for the Assembly project, are certified to meet the European Restriction of Hazardous Substances (RoHS) standard, the world's de facto standard for hazardous substances in manufactured goods.

There is no reason to provide additional insurance and any such requirement would impose significant financial constraints on the project. Separately, Section 3 A., B., C., F. and G. of the zoning ordinance requires design safety certification, compliance with electrical and building codes, County Ordinances, installation certification and fire risk standards and codes. Additionally, Section 4. M.1-5. sets forth the process for decommissioning upon termination of the project and the methods and requirements for restoration of the property including, road repair, hazardous waste clean-up, if any, regrading, soil stabilization, re-vegetation, and compliance with soil erosion requirements. For the reasons listed here and in condition #6 above, Assembly cannot agree to the need for a hazardous liability bond.

15. Ask county to consider Soil & Water Conservation District to be involved.
    Assembly is amenable to consultation with the Soil & Water Conservation District. Assembly notes that during the its review of the site, DEQ concluded that permits and consultation were not required from the local soil and water conservation district. Assembly will obtain a soil erosion permit and will comply with the requirements of the soil erosion permit.

16. MSDS available to all adjacent property owners.
    Assembly cannot agree to a requirement to make MSDS sheets for solar panels available for the reasons described in Assembly's response to conditions #6 and #14.