HAMLIN TOWNSHIP PLANNING COMMISSION (HTPC) June 2, 2025 at 6:00 P.M. AGENDA (DRAFT DOCUMENT)

1. Call To Order

I hereby call the June 2, 2025 Hamlin Township Planning Commission meeting to order at 6:00 P.M. Please join as the Chairperson leads us in the Pledge of Allegiance.

2. Roll Call

Walden, Matthews, Rollenhagen, Herban, Sisson, Muzzo, Courtier, Gurzynsk, Sarto

3. Introduction of New and Current Board Members

• Welcome new Board Member Ron Sarto.

4. Approval of Agenda

- Modifications to June 2, 2025 Agenda.
- Motion to approve the agenda as it stands or approve the agenda with modifications.
 Motion By: Supported By: AA MC

5. Approval of Minutes

- Modifications to May 5, 2025 Minutes.
- Motion to approve the minutes as it stands or approve the agenda with modifications.

Motion By:	Supported By:	AA MC
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6. Public Comment – June 2, 2025 Agenda Only

- Chairperson to Open Public Comments
- Public Participation Rules.
 - State your name and address for the record.
 - Address the entire commission, please turn off your cell phones and avoid threatening comments or actions.
 - Each person has 3 minutes to speak; you cannot give your time to others.
- Chairperson to close Public Comments

7. Old Business

- Land Use Master Plan: Land Use Master Plan and Zoning Ordinance Refresh. Action: Update from Committee Chairperson.
- **Public Assembly & Event Venues Ordinance:** Discussion and Drafting of Ordinance. **Action:** Update from Committee Chairperson.

- **Public Hearing:** Article 19 Special Land Uses Definitions and Design Standards **Action:** Discussion and Vote to send a directive to schedule a public hearing.
 - Motion: Schedule Public Hearing for July 7, 2025

Motion By: Supported By: Roll Call Vote MC

- **Zoning Ordinance:** Comprehensive Renewable Energy **Action:** Discussion and Vote to move out of committee.
 - Motion: Release draft document from committee and prepare for a public hearing.

Motion By: Supported By: AA MC

8. New Business

• No new business.

9. Communications

- Report from Township Representative.
- Report from Secretary.

10. Announcements

• Next Hamlin Township Planning Commission meeting will be held on July 7, 2025

11. Public Comment

- Chairperson to Open Public Comments
- Public Participation Rules.
 - State your name and address for the record.
 - Address the entire commission, please turn off your cell phones and avoid threatening comments or actions.
 - Each person has 3 minutes to speak; you cannot give your time to others.
- Chairperson to close Public Comments

12. Board Member Comments

13. Adjourn Meeting

- o Chairperson to adjourn the June 2, 2025 Planning Commission Meeting.
- Motion By: Supported By: AA MC
 Meeting Closed at 0:00 P.M.

Hamlin Township Planning Commission Agenda Packet

The Agenda Packet serves as a resource for the planning commission, providing all necessary materials and information to support informed decision-making during the meeting. It includes relevant documents, reports, and plans related to agenda items, ensuring efficient and effective discussions.

1. May 5, 2025 Meeting Minutes

1	Planning Commission Meeting Minutes
2	May 5, 2025 6 PM
3 4	Meeting called to order by Chairperson T. Walden at 6P.M. and led the Pledge of Allegiance.
5 6 7 8	Roll call: Members present were, T. Walden, B. Matthews, D. Rollenhagen, M. Herban, S. Sisson, C. Muzzo, K. Couturier and J. Gurzynski. Others present included Z. Iverson-Zoning Administrator and J. Iverson-Recording Clerk. Approximately 7 in audience including M. Greenslait-Supervisor. All Present
9 10 11	Approval of Agenda: 3 modifications to May 5, 2025 agenda were made by T. Walden. 1.) Motion to approve the HTPC By-Laws as it-stands. 2.) Add motion to amend HTPC By-Laws 1.4.1 Minutes. 3.) Add motion to amend HTPC 2.9 Public Records.
12	Motion made to accept agenda as revised by B. Matthews 2nd by D. Rollenhagen.
13	AA MC
14 15 16	Approval of Meeting Minutes: 2 modifications made to April 7, 2025 meeting minutes. 1.) By B. Matthews- Line 98 & 99 motion on the floor and no vote recorded. Correction made and minutes updated 5/6/25.
17	 Township. MOTION made by B. Matthews that we do not take this issue up at this time 2nd by J. Gurzynski.
18 19	Corrected to: 99 Township. MOTION made by B. Matthews that we do not take this issue up at this time 2 nd by J. 100 Gurzynski.
20	2.) By C. Muzzo- Line 60 corrected 5/6/25:
21	 Committee formed with T. Walden acting as Chair, S. Sisson and C. Muzzo. T. Walden mentioned 4 members but only 3 listed above were heard on recording. Clarification made in May 5, 2025 Planning commission meeting that K. <u>Courturier</u> is the 4th member. J. Gurzynski prefers to see it
22	Motion made by B. Matthews to approve as modified 2nd by M. Herban. AA MC
23 24 25 26	Public Comment: Tiller Landick, No Name Rd: If something is not permitted it is not prohibited. Concert venue and large outdoor assemblies are not mentioned and are not allowed according to Zoning Ordinace. Stix now is a stand alone concert venue because duing concerts the primary business, the resturant, shuts down. Appealing a ZBA decision is a normal budgeted
27	rownship pushess and it is not normal to use pudgeted rownship money in court cases aginst

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- 28 an individual that refuses to follow ordinace and pay citations. Appreciate those attempting to
- 29 hold this business reaponsible.
- 30 Pubic comment closed.
- 31 Old Business: T. Walden asked for Motion to untable Site Condo Definition and Guidelines
- 32 Moved by B.Matthews 2nd by D. Rollenhagen.
- 33 Other changes were made in addition to the packet that T. Walden sent out. J. Gurzynski
- 34 believes it is a good idea to read it into the minutes. C. Muzzo reads the Site Condo Definitions 35 and Design Guidelines.
- 36 Definition- T. Walden pointed out what was struck, simplified and changed in definition 37 paragraph.
- 38 Design Standards- B. Matthews voice concern about street lights, stating our Mater Plan say we
- 39 should retain rural entergaty in our Township and street lights are not rural but sees the
- 40 necessaty, but they need to shine donwn and not create light trespass on neighboring property.
- 41 Would like to see light tresspass be a rule to not allow and shine on the street only. Cross talk
- 42 about lighting in ordinace.
- 43 Language from Zoning Ordinace 17.5.A added A streetlight shall be installed at each intersection
- 44 where the streets developed as part of the site condominium project intersects with a
- 45 previously established public road or street. Lighting facilities shall be so arranged as to reflect
- 46 the light away from adjoining properties.
- 47 Natural Features- D. Rollenhagen would like to see sand dunes added. Natural groves, water
- 48 courses, sand dunes and similar community assets. B. Matthews would like to see 25 feet
- 49 increased to 50 feet on riparian rite away. <u>Developments must maintain at least 30% of the</u>
- 50 site's tree canopy and native vegetation. A Riparian Buffer Zones with a minimum buffer zone
- 51 of 50 feet shall be maintained along the banks of all watercourses and wetlands to protect.
- 52 water quality and habitat. This area shall remain undisturbed except for necessary access or
- 53 approved restoration efforts.
- 54 B. Matthews would like to add pollinators required. Ground cover, shrubbery, recomemend
- 55 pollinator habitat whenever possiable, or other sutable landscape materials,
- 56 D. Rollenhagen sees confict between paragraps stating unimproves vs undisturbed. Change
- 57 made was all disturbed surface area of the site shall be
- 58 Community Infrastructure Impact- B. Matthews stated we are describing an infastructe we do
- 59 not have and will not have for a long time. Does this need to be expanded to design standards.
- 60 Voiced concern about too many well and too many septics being placed in one area. Crosstalk

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AA MC

- 61 about the health department being responsialbe to make sure the impact is assessed. Agreed
- 62 to leave language as is.
- 63 Administration and Procedure- B. Matthews asked why only 9 copies were needed and
- 64 suggested more where necessary. 20 copies were agreed on.
- 65 Change may to, The township board shall require a cash deposit, certified check.
- 66 Contents of site condominium project plan- B. Matthews want address the time-share wording
- 67 Z. Iverson explained what site condo means for what is in place already. Additional crosstalk of
- 68 a site condo being you buy the house and land that has already been developed between C.
- 69 Muzzo and other board members and reasons why it is being discussed. S. Sission pointed out
- 70 that it is SLU and can be turned down if design standards are not met. Site condos are allowed
- 71 in our ordinance under R1. 8.3.N ordinance referenced by C. Muzzo, Crosstalk of if the site
- 72 condo definitions and standards need to be looked at again and reworked aske between T.
- 73 Walden. & D. Rollenhagen. B. Matthews explained we require them to be built on one acre lots.
- 74 J. Gurzynski mentioned the Master Plan should not be changed to accommodate this.
- 75 The use and occupancy restrictions and maintenance provisions for all general and limited
- 76 common elements that will be included in the master deed. Any provisions for time-share units,
- 77 time-share estates, time-share licenses, leasehold condominiums, or other restrictions or
- 78 regulations concerning co-ownership, Short-term rental, leasing or temporary occupancy of
- 79 condominium units that shall be included in the master deed.
- 80 C. Muzzo mentions we do not have water and sewer lines here at this time.
- 81 A utility plan showing all water and sewer lines and easements granted to the appropriate
- 82 municipality for installation, repair, and maintenance of all utilities if applicable.
- 83 Requirements for review- B. Matthews would like to add cost be borne by applicant.
- 84 In its review of a site condominium project plan, the Planning Commission may consult with the
- 85 Zoning Administrator, Township Attorney, Township Engineer, Township Fire Chief, Township
- 86 Planner, or other appropriate persons regarding the adequacy of the proposed common
- 87 elements and maintenance provisions, use and occupancy restrictions, utility systems and
- 88 streets, project layouts and design, or other aspects of the proposed project, and compliance of
- 89 the proposed project with all requirements of the Condominium Act (MCL 559.101 et seq.) or
- 90 other applicable laws, ordinances, or regulations. Cost of any outside advisors will be borne by
- 91 applicant.
- 92 Incorporation of approved Provisions in Master Deed- D. Rollenhagen questioned the "as built"
- 93 wording and looked for clarification of why as built survey shall be provided within ten days

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94 after the plan with the county. After crosstalk of as built meaning it was decided to change as 95 built to "as designed".

96 MOTION made by B. Matthews to approve Site Condo Definitions and Design Guidelines with 97 changes made and requested roll call vote. 2nd by D. Rollenhagen.

 98
 Roll Call Vote taken as Rollenhagen-N, Herban-Y, Sisson-Y, Matthews-Y, Couturier-Y, Gurzynski-N

 99
 Muzzo-Y, Walden-Y.
 2 No and 6 Yes
 MC

100 HTPC By-Laws: Motion made by B. Matthews to accept By-laws as presented in packet with 2nd 101 by M. Herban. J. Gurzynski questioned why the by-laws are being revised to this extreme when 102 current by-laws are barely 5 years old. T. Walden said there were changes brought to his 103 attention of best practice language per MTA. J. Gurzynski voiced concern of elimination of 104 approval of Township board, Zoning Administrator and does not agree with it. K. Couturier 105 asked J. Gurzynski to point out where she was seeing the changes. J. Gurzynski pointed out there were numerous ones and started with 1.2 Chairperson. B. Matthews believes it is a 106 107 purposed budget. T. Walden stated the Supervisor asked to prepare the budget this year. B. 108 Matthews believes a formal budget is done by The Township Board. B. Matthews asked it the 109 annual report could be changed from Supervisor to township board? Changes made to 1.2: 110 Chairperson: The Chairperson shall preside at all meetings, appoint committees, and perform 111 other duties as ordered by planning commission. Additionally, the Chairperson will be 112 responsible for preparing and presenting the annual report to the Township Supervisor Board. 113 The Chairperson will also be responsible for developing the annual budget purposed annual budget for the planning commission. J. Gurzynski asked why under agenda 2.5 the zoning 114 115 administrator was removed? And asked if the chair was sole responsible for the agenda 116 because in the past there was incite from the zoning administrator. T. Walden replied yes as of 117 right now I am solely responsible for the development of the agenda. K. Couturier said it should 118 be stated that way. T. Walden asked if it was being said that he should consult with the Zoning 119 Administrator as well? J. Gurzynski replied she believes it is a necessity and T. Walden asked 120 why? J. Gruszynski said there are things that may come up that the zoning administrator may 121 need us (planning commission) to address things the board is unaware of and needs to brought 122 up by zoning administrator. T. Walden asked if it should be added back in and J. Gurzynski said 123 yes. D. Rollenhagen stated input should come from anyone that has a legitimate item on 124 agenda. B. Matthews agrees with the thought and hopes the Chair has an open enough mind to 125 put it on the agenda if it was important, we have to trust our Chair to be reasonable and 126 consultation with Zoning Administrator is value. C. Muzzo mentions to include Zoning 127 administrator if there was an illness with the Chair. T. Walden asked if we should unstrike zoning 128 administrator. B. Matthews knows as being Vice Chairperson he will need Zoning Administrator 129 to help. Changes made were The chairperson or zoning administrator. And shall be consulted 130 with the zoning administrator. Section 4.A J. Gurzynski asked why the entire paragraph was

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- 131 struck, believing the entire legislative body was included. B. Matthews and D. Rollenhagen
- 132 believes it was done so no gifts were passed thru the Planning commission. Left as struck.
- 133 Section 3: Unstrike A. Review subdivision proposals and recommend appropriate actions to the

134 township board. C. Muzzo asked about Section 1- D NOTICES why that was struck out and now

135 under 2.3 with same original language in original By-laws. T. Walden believes it is responsibility

136 under secretary. C. Muzzo states it is now does not clarify whose responsibility it is. Language

137 from D that was struck will be unstruck and moved to 2.3.

138 Recess Requested

AA MC

- 139 Called back to order by T. Walden 8:15 PM
- 140 T. Walden asked if there were any further changes to existing be made. C. Muzzo referenced
- 141 2.7.1, 2.7.2 and 2.73 T. Walden said those were not changes they are amendments he wanted
- 142 to discuss. Voting on changes from last meeting and discuss amendments. C. Muzzo 2.8 recess
- 143 during regular meetings. Sees a possible problem with recesses and it is possible that
- 144 conversations are taking place. T. Walden says no business should be discussed and asked if
- 145 language needs to be changed. No Changes made.
- 146 The MOTION on the floor by B. Matthews is amended by B. Matthews to incorporate the
- 147 changes made during discussion 2nd by D. Rollenhagen.
- Roll Call vote: Sisson-Y, Muzzo-Y, Rollenhagen-Y, Walden-Y Couturier-Y, Matthews-Y, Herban-Y,
 Gurzynski- N 7-Y & 1-N MC
- 150 Amendments to By-Laws: Voting. After additional research and contacting. T. Walden added
- 151 2.7.1, 2.7.2, 2.7.3, 2.7.4, 2.7.5, 2.7.6 and 2.7.7 voting guidelines addressing the 2/3rds vote.
- 152 Striking all language in above paragraph that was discussed in April meeting.
- 153 2.7.1 was read by T. Walden. B. Matthews stated you would have to have all 6 members voting.
- 154 C. Muzzo asked if you have 6 votes being an even number that would leave an even number.
- 155 Then how is that handled. B. Matthews mention he would like to keep the formula and add
- 156 language if a tied vote occurs the motion is denied but the case of a tied vote the issue may be
- 157 brought up the next meeting only once. J. Gurzynski asked why Mater Plan was put in. T.
- 158 Walden explained the MTA requires specific language. Crosstalk of the Mater Plans approval of 159 changes and procedure between the Board.
- 160 2.7.2 was read by T. Walden. Added same language as above. If a tied vote occurs the motion is 161 denied but the case of a tied vote the issue may be brought up the next meeting only once.
- , , , ,
- 162 2.7.3 was read by T. Walden. Stating the MTA guidelines require majority for everything except
- 163 Master Plan and By-Laws where they require 2/3rds vote. B. Matthews would like to see it

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164 165 166 167 168 169 170 171	2/3 ^{rds} all the way through. Stating the zoning ordinance is at least as important as out By-Laws. Crosstalk of majority vs 2/3rds and our quorum being 5 of 9 is majority. B. Matthews concerns of 3 people could pass a change. T. Walden asked do we treat zoning the same as By-Laws and Master Plan. Can 3 people pass an ordinance, master Plan and By-Laws was asked by B. Matthews. Not seeing how this can be resolved unless we make a quorum from 5 to 7. B. Matthews wants to see 7 or 6. Discussion of if we don't have a quorum, we will have to postpone meetings. D. Rollenhagen asked B. Matthews if he would accept 6 and B. Matthews responded Yes because that would make 4 a majority vote.
172	Motion made by D. Rollenhagen to change quorum to 6. 2 nd by B. Matthews AA MC
173	Motion carried to change - 2.6: Quorum: Five Six members
174	Motion made by D. Rollenhagen to maintain zoning ordinances a majority 2^{nd} by M. Herban.
175 176	Roll Call- Herban- Y, Sisson-Y, Bollenhagen-Y, Couturier-Y, Gurzynski-Y, Muzzo-Y, Walden-Y, Matthews-Y AA MC
177 178	Motion made by B. Matthews to accept 2.7.1 and 2.7.2 as written with additional changes. 2^{nd} by D. Rollenhagen.
179 180	Roll Call- Muzzo-Y, Rollenhagen-Y, Gurzynski-Y, Walden-Y, Couturier-Y, Sisson-Y, Matthews-Y, Herban-Y AA MC
181 182	Motion made by B. Matthews to approve 2.7.4 Other Actions or Motions as written 2^{nd} by D. Rollenhagen.
183 184	Roll Call- Matthews-Y, Herban-Y, Bollenhagen-Y, Muzzo-Y, Gurzynski-Y, Couturjer-Y, Walden-Y, Sisson-Y AA MC
185	2.7.5 Quorum Definition-previously changed 6 to 9 no discussion needed.
186 187	2.7.6 Voting Methods-D. Rollenhagen asked if it was current language and T. Walden said no it is not it is a recommendation from MTA and corrected himself to yes, it is current language and

- 188 no change was made from original by-laws.
- 189 2.7.7 Conflict of Interest- No discussion was had at the table.
- 190 2.7.8 Ex-Officio Member Voting- B. Matthews asked if that was a change and T. Walden verified
- 191 it was a language change and read the original. Does not see a need to change.
- 192 2.9 Public Record purposed amendment. T. Walden mentioned that there was a retention policy
- 193 being discussed at the Board of Trustee meeting Thursday and the recordings may not be
- 194 retained for a long-term basis. B. Matthews referenced MTA states they are part of public
- 195 record and needs to be kept in record. J. Gorzynski also believes they do need to be retained for

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196 a certain amount of time. T. Walden read best practice language from Michigan Open Meeting

197 Act. Crosstalk of retention policy and changes to policy from Board of Trustee. Maintain current

198 language and T. Walden will follow up.

199 1.4.1 Minutes- Strike 1.4.1: Minutes: The Secretary shall be responsible for maintaining a

200 permanent record of the minutes of each meeting and shall have them recorded in a suitable 201 permanent record maintained by the Township Clerk. The minutes shall contain a brief synopsis 202 of the meeting including a complete restatement of all options and record of votes conditions or 203 recommendations mane on any action and record of attendance Amend language to Once 204 approved by The Planning Commission Board members the secretary shall be responsible for 205 certifying the minutes of the official records. The Recording clerk shall be responsible for a

206 permanent record of the minutes of each meeting and have them recorded in a subtidal

207 permanent record maintained by the Hamlin Township Clerk. The minutes shall contain a brief

208 synopsis of the meeting including a complete restatement of all options and record of votes,

209 conditions, and recommendations made at any action and record of attendance.

210 Motion moved by D. Rollenhagen to approve amended Minutes 2nd by B. Matthews

 211
 Roll Call Sisson-Y, Bollenhagen-Y, Couturier-Y, Herban-Y, Muzzo-Y, Gurzynski-Y, Walden-Y,

 212
 Matthews-Y
 AA MC

 213
 Public Hearing- Motion made to table until June 2nd Meeting made by T. Walden Moved by B.

 214
 Matthews supported by K. Couturier

 AA MC

215 Zoning Ordinance of Comprehensive Renewable Energy. Changes since last meeting -216 Legislation to restore local decision-making authority on the siting of large-scale renewable 217 energy facilities was considered Tuesday April 22,2005 by the House energy committee. Bills 218 were passed by the House and moved to the Senate with an uncertain future and republican bill 219 to restore site authorly to local units of government unlikely to pass thru Senate until after 220 midterms. May remain with the State. Does any of our ordinance contradict with credo was 221 asked by T. Walden and C. Muzzo replied yes but this is not to be misconstrued with a credo. 222 Are we more restrictive? C. Muzzo believes ours is workable. Crosstalk of other townships 223 refusing to make adjustments made by utility companies. Lots of gray areas for interpretation. 224 Crosstalk how our ordinance was developed. C. Muzzo and committee would appreciate 225 additional eyes on it and not ready to be voted on. B. Matthews would like to see constancy 226 throughout the document but very satisfied with the scope. T. Walden has questions as well 227 and wondered how they would like feedback. D. Rollenhagen asked if everyone would read 228 thru it completely and forward questions directly to C. Muzzo, MTA suggests the Township 229 attorney's review.

130 Land Use Master Plan. T. Walden will schedule a committee meeting with in the next week.

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- 231 Venue Use Ordinance. S. Sisson has 1 meeting with committee members and has a very rough
- 232 draft put together with another meeting scheduled for Thursday May 15,2005.
- 233 New Business. None
- 234 Communications. None
- 235 Announcements. Next meeting 6pm June 2, 2025

Public Comment. Tiller Landick, No Name Road- 3.5 hour of meetings is very long and hope there can be a way to make them more efficient. Agrees with B. Matthews on the lights and does not believe Stix should have their tree lit for 365 days 24/7 and wishes something could be done about it. Main sign is also extremely bright and does not believe it follows ordinances. Tree should not be on in the middle of the winter.

- 241 Cynthia Tanner Ridgeview Court. Request the most current items be placed on the front of
- 242 agenda. Agrees with Tiller. Large out door assembly is only mentioned in the parking. Port-a-
- 243 johns being used for 100s of people. Zoning ordinance language is important and has to have
- 244 all bodies of Township honor language has found in the past the site review has not abided by
- 245 article 19 of zoning ordinance. Specific issues have been brought to the ZBA 3 years ago and has
- 246 not been interpreted and would like to see it coordinated
- 247 Close
- 248 Motion to adjourn made by D. Rollenhagen 2nd by K. Couturier AA MC
- 249 Meeting adjourned 21:32

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 Public Hearing: Article 19 Special Land Uses Definitions and Design Standards The following Special Use Definitions and Design Standards were passed in a Motion in 2024 for a Public Hearing:

Zak Iverson, Zoning Administrator:

Please proceed with scheduling a public hearing for the Hamlin Township Planning Commission to vote on the Special Land Use Definitions and Design Standards approved by motion in 2024. Ensure that all required notifications and postings are completed in accordance with local regulations, and coordinate necessary arrangements for public participation. The hearing should provide an opportunity for community input before the final decision is made.

Grocery Stores/Gift Shops

Current Definition and Design Standards: No Definition or Design Standards in place.

Article 3 Section 3.02 Definition:

Grocery Stores and Gift Shops are defined as retail establishments primarily engaged in the sale of food products, household items, and a variety of gifts and souvenirs. Grocery Stores include but are not limited to supermarkets, specialty food stores, and convenience markets, offering a wide range of perishable and non-perishable goods to meet the daily needs of the community. Gift Shops are retail spaces offering a selection of gifts, souvenirs, crafts, and other novelty items, often catering to both local residents and visitors. Both types of establishments are zoned for commercial use and are designed to provide essential shopping amenities, enhance local economic activity, and contribute to the community's overall convenience and vibrancy. They must comply with specific zoning requirements related to size, location, operational hours, parking, and environmental impact to ensure they integrate seamlessly with the surrounding community and minimize any potential negative effects on residential areas and local traffic patterns.

Article 19 Section 19.02 Design Standards:

(K.) The defined design standards must conform to and be dependent upon adherence to all pertinent licensing and regulatory requirements as established by state and county authorities. Fulfillment of these requirements is a prerequisite for the granting of approval and subsequent enactment of the design standard.

- Michigan Department of Licensing and Regulatory Affairs Liquor Control Commission.
- Mason County District Health Department #10
- Mason County Building Department (Including Mechanical and Electrical)
- Mason County Road Commission
- Mason County Drain Commission
- Michigan Department of Great Lakes and Energy (EAGLE)

The defined design standard shall be in accordance with and subject to the relevant articles as stipulated in the Hamlin Township Zoning Ordinance No. 45. Compliance with these articles is mandatory for the approval and implementation of the design standard.

- Article 4: General Provisions
- Article 5: Zoning District
- Article 17: Parking and Loading Requirements (Schedule of: Retail Stores, Video Rentals, Supermarkets, Department Stores, and Personal Service Shops)
- Article 18: Signs and Billboards
- Article 19.01: Special Land Use Procedure
- Article 21: Site Plan Review
- Site Selection and Zoning Compatibility: Grocery stores and gift shops should be located in areas zoned for commercial use, ensuring compatibility with surrounding land uses. Site selection must consider proximity to public transportation, pedestrian access, and contribution to the local economy's vibrancy.
- Architectural Aesthetic Cohesion: Buildings should complement the surrounding architectural styles and community character. Use of materials, colors, and designs that reflect local surroundings and landscapes is encouraged.
- Environmental Sustainability: Incorporate green building practices and materials to minimize environmental impact. Implement energy-efficient systems, water conservation practices, and renewable energy sources to achieve sustainability goals.
- **Safety and Accessibility:** Ensure safe access for all users, including adequate lighting, accessible entries, and emergency exit routes. Adhere to ADA standards, providing a safe and welcoming environment for individuals with disabilities.
- **Traffic and Parking Management:** Design parking areas to minimize congestion, including dedicated spots for bicycles and car-sharing. Implement traffic flow patterns that reduce conflicts between pedestrians, cyclists, and vehicles.
- **Noise and Light Control:** Utilize landscaping and architectural features to mitigate noise. Implement lighting designs that minimize light pollution, enhancing safety while respecting neighboring properties' tranquility.
- Waste Management: Implement waste management systems that are both efficient and hidden from public view, designed to reduce odors and noise. This includes providing adequate facilities for the recycling and disposal of waste produced.
- **Community Engagement:** Encourage community input in the planning stages and maintain open communication with residents and businesses to foster positive relationships and address concerns proactively.

- **Operational Guidelines:** Establish guidelines that outline operational hours, delivery schedules, and maintenance routines to minimize disruptions to the local community and environment.
- Site Uses External to Operations: Consider integrating community spaces such as public seating areas, green spaces, or community bulletin boards to promote interaction and serve the community beyond commercial activities.

Ponds

Current Definition and Design Standards: Article 3 Section 3.02 Definition: Definition currently in place in Zoning Ordinance See Article 3 Section 3.02: Any body of water 5A or less/not meeting the definition of swimming pool or water garden shall be termed a pond. No Design Standards in place.

Article 19 Section 19.02 Design Standards:

(T.) The defined design standard shall be in accordance with and subject to the relevant articles as stipulated in the Hamlin Township Zoning Ordinance No. 45. Compliance with these articles is mandatory for the approval and implementation of the design standard.

- Article 4: General Provisions
- Article 5: Zoning District
- Article 17: Parking and Loading Requirements (Schedule of: Places of Outdoor Assembly where applicable)
- Article 18: Signs and Billboards
- Article 19.01: Special Land Use Procedure
- Article 21: Site Plan Review
- Site Selection and Zoning Compatibility: Choose sites that align with local zoning ordinances, considering the ecological value and hydrology of the area. The site should enhance or restore natural landscapes and contribute to regional biodiversity objectives, avoiding disruption to existing natural habitats and water bodies.
- Architectural Aesthetic Cohesion: Design should integrate aesthetically with the natural surroundings, employing materials and styles that reflect the local environment and community character. Structures associated with the pond, such as bridges or viewing platforms, should be designed to be visually unobtrusive and harmonize with the landscape.
- Environmental Sustainability: Incorporate features that promote ecological balance, such as natural filtration systems, to maintain water quality, and vegetation zones for habitat support. Employ earth-friendly construction practices and materials to minimize environmental footprints, ensuring the pond promotes biodiversity and ecosystem health.
- **Safety and Accessibility:** Ensure safe public access while protecting sensitive areas. Paths and facilities should comply with ADA standards, providing inclusive access without compromising the pond's ecological integrity. Designate safe viewing and interaction points to enjoy the pond while ensuring the safety of both visitors and wildlife.

- **Traffic and Parking Management:** Where applicable, develop thoughtful parking and traffic arrangements that minimize environmental impact, using permeable surfaces to reduce runoff. Design access routes to accommodate peak usage without causing congestion or harming the surrounding areas.
- Noise and Light Control: Implement lighting fixtures that reduce glare and light pollution, maintaining a natural dark-sky environment, especially in nocturnal wildlife habitats. Any noise-producing activities should be carefully managed or restricted to ensure they do not disrupt local wildlife or the surrounding community.
- **Waste Management:** Where applicable, establish robust waste management practices to prevent pollution of the pond and surrounding areas. Encourage the use of recycling and composting bins at access points and ensure regular maintenance to keep the area clean and healthy.
- **Community Engagement:** Encourage community input in the planning stages and maintain open communication with residents and businesses to foster positive relationships and address concerns proactively.
- **Operational Guidelines:** Where applicable, define clear operational guidelines for the maintenance and use of the pond and associated facilities. These should address water quality management, habitat preservation, and the responsible use of the area by the public.
- Site Uses External to Operations: Where applicable, consider integrating the pond area with broader community uses, such as trails, environmental education, and passive recreation opportunities, while ensuring these activities do not compromise the pond's ecological functions. The site can serve as a valuable educational and recreational resource, fostering greater community connectivity and environmental awareness.

Boat Liveries and Bait Shops

Current Definition and Design Standards: Boat Livery: A boathouse or dock on a lake or other body of water, where boats are let for hire usually on an hourly, daily or weekly basis. Boats may be powered, sail craft, personal watercraft or human powered (rowboats, paddleboats, canoes or inflatable boats). The primary use of the boats is recreational. **Bait Shop:** A building or part of a building or structure where live and dead bait and fishing tackle are sold at retail to the public as a principal or incidental operation. No Design Standards in place.

(D.) The defined design standard shall be in accordance with and subject to the relevant articles as stipulated in the Hamlin Township Zoning Ordinance No. 45. Compliance with these articles is mandatory for the approval and implementation of the design standard.

- Article 4: General Provisions
- Article 5: Zoning District
- Article 17: Parking and Loading Requirements (Schedule of: Retail Stores, Video Rentals, Supermarkets, Department Stores, and Personal Service Shops)
- Article 18: Signs and Billboards

- Article 19.01: Special Land Use Procedure
- Article 21: Site Plan Review
- Site Selection and Zoning Compatibility: Select sites that are zoned for waterfront commercial activities, ensuring that the location supports both the operational needs of boat liveries and bait shops, and complements existing land uses. Consideration should be given to water quality, aquatic habitat conservation, and proximity to user populations.
- Architectural Aesthetic Cohesion: Design buildings and structures that reflect the character of the surrounding environment and community. Utilize materials and colors that blend with the natural landscape and adopt architectural styles that are consistent with or enhance the area's visual appeal.
- Environmental Sustainability: Incorporate sustainable practices to manage stormwater and reduce runoff. Implement energy-efficient lighting and renewable energy sources to minimize carbon footprint. Ensure all construction and ongoing operations do not harm local ecosystems or water quality.
- **Safety and Accessibility:** Ensure safe and universal access for all, including compliant docks, walkways, and facilities. Implement safety measures such as signage, life-saving equipment, and emergency procedures. Design layouts that accommodate a variety of users with diverse mobility needs.
- **Traffic and Parking Management:** Provide adequate parking spaces to meet peak season demand without encroaching on natural habitats. Where applicable, design traffic flow to minimize congestion in surrounding areas, including drop-off zones for boats and gear.
- Noise and Light Control: Implement noise control measures to minimize disruption to wildlife and nearby residential areas. Use shielded, downward-facing lighting to reduce glare and prevent light pollution, preserving the natural nighttime environment.
- Waste Management: Develop waste management plans that include recycling, safe disposal of fishing and boating waste, and oil or fuel spill prevention. Provide facilities for proper disposal of bait and cleaning fish, ensuring waste does not enter waterways.
- **Community Engagement:** Engage with local communities and stakeholders in the planning process to align operations with community values and needs.
- **Operational Guidelines:** Establish clear operational guidelines covering hours of operation, behavior rules, environmental protections, and maintenance routines. Guidelines should ensure responsible use, sustainability, and community harmony.
- Site Uses External to Operations: Where possible, incorporate community spaces, such as picnic areas, view platforms, or educational exhibits. Explore opportunities for the site to host community events or serve as a base for environmental research and monitoring.

Open Space Development (OSD)

Current Definition and Design Standards: No Definition or Design Standards in place.

Article 3 Section 3.02 Definition:

Open Space Development refers to the planned and deliberate approach to land use where a significant portion of a property is left undeveloped or is minimally altered to preserve natural resources, enhance community green spaces, and maintain ecological balance. This development strategy prioritizes the conservation of green areas, wildlife habitats, and natural features, such as dunes, wetlands and forests, within the developed parcel. It aims to optimize the ecological, recreational, and aesthetic benefits of open spaces while accommodating residential, commercial, or mixed-use development in a manner that ensures a harmonious balance between built and natural environments.

Article 19 Section 19.02 Design Standards:

(AC.) 1. The defined design standard shall be in accordance with and subject to the relevant articles as stipulated in the Hamlin Township Zoning Ordinance No. 45. Compliance with these articles is mandatory for the approval and implementation of the design standard.

- Article 4: General Provisions
- Article 5: Zoning District
- Article 17: Parking and Loading Requirements (Schedule of: Places of Outdoor Assembly where applicable)
- Article 18: Signs and Billboards
- Article 19.01: Special Land Use Procedure
- Article 21: Site Plan Review
- Site Selection and Zoning Compatibility: Choose sites that align with comprehensive community planning goals, prioritizing areas that can benefit from conservation and public use. Compatibility with existing zoning ordinances is essential, and any development should enhance or maintain the natural characteristics and biodiversity of the area.
- Architectural Aesthetic Cohesion: Design structures that complement the surrounding landscape, using materials and colors that blend with the natural environment. Architectural designs should contribute positively to the visual quality of the area, promoting a seamless integration between built and natural elements.
- Environmental Sustainability: Incorporate sustainable design principles that minimize environmental impact, enhance energy efficiency, and use renewable resources. Efforts should focus on preserving native ecosystems, using water wisely, and ensuring developments contribute to a net-positive environmental impact.
- **Safety and Accessibility:** Ensure all open spaces and associated facilities are safe and accessible to everyone, adhering to ADA standards. Design pathways, observation areas, and

recreational facilities to be inclusive, providing safe, comfortable access for people of all ages, abilities, and backgrounds.

- **Traffic and Parking Management:** Design traffic and parking solutions that mitigate congestion and integrate smoothly with existing transportation networks. Parking areas should utilize permeable surfaces to reduce runoff and be landscaped to reflect the natural surroundings.
- **Noise and Light Control:** Implement noise reduction strategies and use low-impact lighting to minimize disturbances to wildlife and enhance the nighttime environment. Outdoor lighting should be designed to reduce sky glow and glare while ensuring safety and security.
- **Waste Management:** Develop comprehensive waste management strategies that encourage recycling, composting, and responsible disposal of trash. Facilities for waste collection should be conveniently located yet discreetly integrated into the landscape.
- **Community Engagement:** Engage with the community early and often in the planning process to ensure open spaces meet the needs and values of local residents. Regular feedback and participatory planning sessions can foster stewardship and a sense of ownership among community members.
- **Operational Guidelines:** Establish clear operational guidelines that cover maintenance practices, the use of pesticides and fertilizers, wildlife management, and the preservation of natural habitats. Guidelines should promote sustainability and the long-term health of the ecosystem.
- Site Uses External to Operations: Support and encourage uses of open spaces that extend beyond passive and active recreation, such as educational programs, community gardening, and environmental restoration projects. These activities can enrich community life and promote environmental education.

3. Zoning Ordinance: Comprehensive Renewable Energy Zoning Ordinance The revised comprehensive renewable energy zoning ordinance requires thorough review to ensure timely feedback to the committee. Please review the ordinance prior to June 2, 2025, to contribute meaningful input during the session. After the discussion, the board will determine whether to refer the ordinance back to the committee for adjustments or proceed with preparations for a Public Hearing on July 7, 2025.

Hamlin Township Renewable Energy Ordinance

Section 1: Purpose and Intent

Purpose and Intent: The purpose of this ordinance is to establish regulations and guidelines for the development and implementation of renewable energy sources within the jurisdiction, ensuring an environmentally sustainable, economically vibrant, and safe community for all residents. All current ANSI Standards shall apply to WECS.

Section 2: Definitions: To provide clarity and consistency throughout this ordinance, the following terms and phrases shall have the meanings ascribed to them in this section. These definitions are intended to ensure a common understanding of key concepts related to renewable energy, facilitating the effective implementation and enforcement of the ordinance's provisions. Terms not specifically defined herein shall be interpreted in accordance with their customary usage within the renewable energy industry and applicable regulatory frameworks.

Wind Energy Conversion Systems (WECS)

- Small Wind Energy Conversion System: A wind energy conversion system designed to provide electricity for on-site use, typically involving a single wind turbine.
- Utility-Scale Wind Energy Conversion System: A wind energy conversion system designed to generate electricity for sale to the grid, typically involving multiple wind turbines. Projects with a nameplate capacity of 100 megawatts or more. Generally, require 1 to 3 acres per megawatt (MW) of installed capacity. For example, a 100 MW wind farm would need approximately 100 to 300 acres.
- A-WEIGHTED SOUND LEVEL means the sound pressure level in decibels as measured on a sound level meter using the A-weighting network, expressed as dB(A) or dBA.
- AMBIENT SOUND means the all-encompassing sound associated with a given environment, being usually a composite of sound from many sources near and far, as defined by ANSI S12.9 Part 3, current revision.
- ANEMOMETER TOWER means a freestanding tower containing instrumentation such as anemometers that is designed to provide present moment wind data for use by the supervisory control and data acquisition (SCADA) system which is an accessory land use to a utility-scale wind energy system. Also includes the same equipment for evaluating wind characteristics in preparation of or evaluation of construction of on-site wind energy system and utility-scale WECS.
- ANSI means the American National Standards Institute.
- BACKGROUND SOUND means sound from all sources except the source of interest.
- dBA means the sound pressure level in decibels using the "A" weighted scale defined by ANSI.

- DECIBEL means a unit used to measure the intensity of a sound or the power level of an electric signal by comparing it with a given level on a logarithmic scale.
- END OF USEFUL LIFE means the end of the manufacturer's recommended useful life of the product, when lease or easements expire, the WECS or parts of the WECS are abandoned for 12 months or more, or power purchase agreements expire.
- HEIGHT means the distance between the base of the wind turbine tower at grade to the tip of the blade at its highest reach. HORIZONTAL AXIS WIND TURBINE means a wind turbine that utilizes a main rotor shaft and electrical generator at the top of the tower and points into the wind for optimal operation. IEC means the International Electrotechnical Commission.
- ISO means the International Organization for Standardization
- LAYDOWN AREA means a designated area where turbine components are temporarily stored prior to erection. A central laydown area may be used for the project or there may be several laydown areas. A laydown area may be used temporarily during construction or may be a permanent feature of the WECS development.
- Leq means the equivalent average sound level for the measurement period of time.
- Ln, PERCENTILE-EXCEEDED SOUND LEVEL means the A-weighted sound pressure level which is exceeded by a specified percent of the time period during which a measurement is made, denoted as LXX and expressed as dBA. (For example a 10-Percentile-Exceeded Sound Level shall mean the A weighted sound pressure level which is exceeded 10 percent of the time period during which a measurement is made, denoted as L10 and expressed as dBA. L90 denotes the sound level exceeded 90 percent of the time period.)
- PARTICIPATING PARCEL means one or more parcels under a lease or easement for development of a utility-scale WECS.
- NON-PARTICIPATING PARCEL means a parcel for which there is not a signed lease or easement for development of a utility-scale WECS associated with the applicant project.
- ROTOR means an element of a WECS that acts as a multi-bladed airfoil assembly, thereby extracting through rotation, kinetic energy directly from the wind.
- ON-SITE WIND ENERGY CONVERSION SYSTEM (WECS) means a land use for generating electric power from wind and is often an accessory use that is intended to primarily serve the needs of the consumer on-site or an adjacent property.
- SHADOW FLICKER means alternating changes in light intensity caused by the moving blade of a WECS casting shadows on the ground and stationary objects, such as but not limited to a window at a dwelling.
- SOUND PRESSURE means the difference at a given point between the pressure produced by sound energy and the atmospheric pressure, expressed as pascals (Pa).
- SOUND PRESSURE LEVEL means twenty times the logarithm to the base 10, of the ratio of the root-mean-square sound pressure to the reference pressure of twenty micropascals, expressed as decibels (dB). Unless expressed with reference to a specific weighing network (such as dBA), the unit dB shall refer to an un-weighted measurement.
- UTILITY SCALE WIND ENERGY CONVERSION SYSTEM (WECS) means a land use for generating power by use of wind at multiple tower locations in a community and includes accessory uses such as but not limited to a SCADA Tower, electric substation. A Utility-Scale WECS is designed and built to provide electricity to the electric utility.

- VERTICLE AXIS WIND TURBINE means a wind turbine utilizing a vertical rotor shaft, these are often mounted on the ground or a building and do not need to point into the wind to be effective. WECS means wind energy conversion system (see on-site WECS and utility-scale WECS).
- WIND SITE ASSESSMENT means an assessment to determine the wind speeds at a specific site and the feasibility of using that site for construction of a WECS.
- WIND TURBINE means a group of component parts used to convert wind energy into electricity and includes the tower, base, rotor, nacelle, and blades.

General Provisions: The General Provisions section of this Renewable Energy Ordinance establishes the foundational guidelines and regulations for the development, installation, and operation of renewable energy systems within our jurisdiction. These provisions ensure that all renewable energy projects, including wind, solar, and battery storage systems, adhere to consistent standards that promote sustainability, safety, and community well-being. The following regulations are designed to facilitate the integration of renewable energy into our community while balancing environmental protection, economic development, and the interests of all stakeholders. This section applies uniformly to all zoning districts and provides clear criteria for the permitting, construction, and maintenance of renewable energy systems.

Wind Energy Conversion Systems (WECS)

All WECS shall require a Special Land Use permit with site plan approval by the site plan review committee and must be in accordance with all standards, procedures and provisions set forth in Article 19 for Special Land Use approval. In the event that there is a discrepancy between the provisions of Article 19 or any other part of the Hamlin Township Zoning Ordinance and this specific article pertaining to WECS, the WECS article shall take precedence.

• Small Wind Energy Conversion System (Onsite):

- Permitted as a Special Land Use in R-1, R-2, R-3, C and PR zoning and shall follow the regulations associated with accessory uses. The power may only be generated for non-commercial purposes with a rated capacity of 80 kW or less.
- Subject to a Site Plan Review by the Zoning Administrator.
- Ordinance Structure
 - WECS shall require a Special Land Use permit with site plan approval by the site plan review committee and must be in accordance with all standards, procedures and provisions set forth in Article 19 for Special Land Use approval. In the event that there is a discrepancy between the provisions of Article 19 or any other part of the Hamlin Township Zoning Ordinance and this specific article pertaining to WECS, the WECS article shall take precedence.
- Permitted Land Uses and Conditional Uses:

- The applicant shall describe the public benefits of the proposed WECS to justify its construction. Public benefits may include, but are not limited to, any contributions to meeting identified energy, capacity, reliability, or resource adequacy needs of this jurisdiction.
- o Non-Commercial WECS shall be governed by the requirements listed below.
- Use Standards: All Off-Site WECS shall comply with the following use standards.

• System Certification:

- All WECS shall be in compliance with the latest edition of the International Electrotechnical Commission (IEC) standards for wind turbines at the time of application. Compliance includes that all system components and equipment shall be certified by a Nationally Recognized Testing Laboratory (NRTL) to the following standards:
 - o IEC 61400-1: Wind Turbines Part 1: Design Requirements
 - IEC 61400-2: Wind Turbines Part 2: Small Wind Turbines
 - IEC 61400-12-1: Wind Turbines Part 12-1: Power Performance Measurements of Electricity Producing Wind Turbines
 - IEC 61400-22: Wind Turbines Part 22: Conformity Testing and Certification
- These standards ensure that WECS are designed, tested, and certified to meet safety, performance, and reliability criteria.
- All WECS must adhere to the guidelines set forth by the latest U.S. Fish and Wildlife Service "Guideline to Avoid and Minimize Wildlife Impacts from Wind Turbines". Federal Register: July 10, 2003 (Volume 68, Number 132)
- All electrical compartments, storage facilities, wire conduit and interconnections with utility companies will conform to national and local electrical codes.
- Utility-scale WECS shall comply with all applicable state construction and electrical codes and local building permit requirements.
- Property enrolled in PA 116 Farmland and Open Space Preservation Program shall not be eligible for use as part of a Small-Scale or Utility Scale wind energy conversion system.

• Heights and Setbacks:

• Setbacks must, at a minimum, be 2.1 times the height of the total structure (tower and blade combined) on all sides of the site boundary.

The site boundary is defined as the boundary of the parcel the WECS is proposed to be located and is limited to one parcel.

- Wind energy generators may exceed the height limitations of the zoning district in which they are located, subject to the limitations provided in this subsection.
- No wind turbine generator shall be located such that the distance between the center of the base of the tower and the nearest point of any existing building designed or used for human occupancy or assembly (including but not limited to a dwelling, school, foster care facility, church, road rights of way and the like) is less than 2.1 times the height of the wind turbine as measured from the ground at the center of the base of the tower to the highest reach of the blade.
- No wind turbine generator shall be located such that the distance between the center of the base of the tower to the nearest point of any existing gas or electrical transmission, distribution, storage tank or gathering line is less than 2.1 times the height of the wind turbine generator, as measured from the ground at the center of the base of the tower to the highest reach of the blade.
- A centralized temporary laydown area for wind turbine component parts and other related equipment shall comply with property-setback requirements of the district and be detailed in the application.

• Sound and Signal Interference:

- Noise generated shall be limited to a maximum of 55 dB on the A weighted scale as measured at all sides of the site boundary.
- These sound level limits are to be evaluated using the A-weighted equivalent sound level (LAeq) descriptor. The LAeq is measured using a ten-minute time interval.
- The sound level limits listed above apply to the contribution from the wind energy conversion system only and do not include contributions from background ambient sounds.
- In the event audible noise due to wind energy conversion system operations contains a tone, such as from a gearbox or generator, the standards for audible noise set forth in the subparagraph 1 and 2 of this subsection shall be reduced from 0 to 6 dBA depending on the severity of the tone as determined by ISO 1996-2.
- Post Construction Sound Survey. Documentation of sound pressure level measurements shall be provided to the Zoning Administrator by a thirdparty qualified professional selected by the Planning Commission and at the expense of the wind energy conversion system owner within 6 months of the commencement of the operation of the project. The post construction study shall be performed at the same locations as the preconstruction study unless additional or alternative locations are required by the Planning Commission.

- Testing Procedures: The system owner shall comply with the requests of the third- party qualified professional selected by the Planning Commission to complete standard testing procedures.
- Test Locations: The test locations shall take into consideration noise complaints on file with the Township and may require additional study locations as deemed necessary by the Planning Commission. The firm conducting the post-construction sound survey shall consult with the Planning Commission, or their representative, prior to conducting the study to agree on the compliance testing locations.
- Non-Compliance: Should the sound study indicate a non-compliant measurement; the owner of the wind energy conversion system will be required to obtain compliance through mitigation or other measures.
- Wind Rose Chart. The applicant shall submit a Wind Rose Chart at the time of the application. This is a chart or graph that describes 12 months (or more) of wind data collected from the proposed project area. This graph or chart will demonstrate direction, duration, and intensity of the wind. These data will be for each height of wind sensor mounted on the meteorological tower.
- Low Frequency Sound and/or Vibration. The applicant shall provide 0 acoustic modeling at the time of application to assess potential low frequency or vibration problems. The modeling study of low frequency sound and vibration shall demonstrate meeting: ANSI S12.9/Part 4 Annex D threshold for minimal annoyance and beginning of rattles from outdoor low frequency noise. If the postconstruction sound survey outdoor octave band sound level measurements reveal that low frequency sound from wind turbines at the exterior of an occupied or non-occupied building may create a vibration or low frequency noise problem, then further studies should be conducted to assess the problem. The further studies shall use the above referenced standards (ANSI S12.2 and ANSI S12.9/Part 4 Annex D). If the further study indicates that the low frequency sound/vibration exceeds acceptable levels, mitigation may be required by the Planning Commission. Mitigation may include operational changes to the turbine, modifications to the subject building or buildings, or other measures as determined by the Planning Commission.
- Tonality: If a tone is observed from a turbine during the post construction sound survey or at a later date (such as due to a malfunctioning gearbox), a defined assessment of the level of tonality shall be conducted utilizing an accepted international standard, such as ISO 1996-2, by an independent, third- party sound consultant selected by the Planning Commission at the expense of the wind energy conversion system owner.

- Any wind turbine generator shall be designed, constructed, and operated so as not to cause radio, television, microwave, cellular or navigational reception or transmission interferences to neighboring areas. In the event that electromagnetic interference is experienced, the applicant must provide alternate service to each individual resident, emergency communication organization, or property owner affected.
 - a. An application shall include a Licensed Microwave Search and Worst-Case Fresnel Zone (WCFZ) analysis.
 - b. The application shall include an interference mitigation plan. The plan shall describe mitigation measures and procedures to eliminate interference from the wind energy conversion system. The plan shall address various forms of interference and corresponding mitigation measures employed before and after construction of the wind energy conversion system. The plan must include relevant maps and modeling showing all known television, internet, emergency services, radio broadcast, or other signal paths along with proposed wind turbine locations.

o Shadow Flicker:

- Flicker Study. A shadow flicker study shall be required, and shall be 0 submitted by the applicant with the application. The purpose of the shadow flicker study is to examine the duration and location of shadow flicker. The model study area shall include all land extending a minimum of 20 rotor diameters in all directions from a wind turbine generator. The model shall be calculated using the following minimum inputs: turbine locations, shadow flicker receptor locations, existing topography, rotor diameter and hub height, joint wind speed and direction distribution (wind rose table, and hours of sunshine (long term monthly references)). The model shall calculate the locations and durations of shadow flicker caused by the proposed wind energy conversion system within the study area, and the total number of hours anticipated per year of shadow flicker. The application shall include estimates for shadow flicker to the nearest tenth of an hour, on a daily basis for each receptor. Assumptions regarding the percentage of time that shadow flicker is likely to occur shall be clearly explained and subject to approval of the Planning Commission. The shadow flicker study shall include a map that indicates the extent of shadow flicker and all potential shadow flicker receptors.
- Shadow Flicker Limits. Shadow flicker shall not be allowed on an occupied building or dwelling. Shadow flicker is measured at the nearest external wall or walls of an occupied building or dwelling located on a parcel. If an occupied building or dwelling is built on an adjacent or nearby parcel after the issuance of a special land use permit for a wind energy conversion system, the owner of the wind energy conversion system shall not be required to alter or mitigate the permitted system.

- Mitigation and Mitigation Plan. A shadow flicker detection/abatement system is required on each wind turbine generator. An equivalent type of system may be used, but only with prior approval by the Planning Commission. Shadow detection systems must be kept in good working order for the entire duration of the special land use. Shadow flicker mitigation measures for each receptor modeled to receive flicker shall be described in a mitigation plan and submitted with the application. Flicker mitigation measures may include but are not limited to, turbine siting changes, flicker detection/abatement system operations and procedures, grading, modifications to a dwelling and/or landscaping. If landscaping is used as a mitigation procedure, the planting of mature trees shall be required. The Planning Commission may require a performance guarantee, in the case of landscaping and/or other mitigation measures, to assure the long- term viability and effectiveness of the mitigation.
- Post-Construction Flicker Mitigation. Should a dwelling or occupied structure on a parcel receive shadow flicker that was not indicated in the shadow flicker study, the owner of the wind energy conversion system shall perform an additional flicker study and mitigation plan for the affected property and submit it to the Zoning Administrator for review prior to implementing mitigation measures.

• Design Guidelines:

- Each wind turbine generator shall be of monopole or monotube style construction (as distinguished from a lattice style). WECS shall be surfaced in a non-reflective color. If the tower is 'climbable', appropriate measures shall be taken to prevent public access.
- Each WECS shall be equipped with both a manual and an automatic braking device capable of stopping the WECS operation in high winds within 80% of design limits of the rotor. All wind energy conversion systems shall be equipped with manual and automatic overspeed controls to limit rotation of blades to speed below the designed limits of the wind energy conversion system. The certified registered engineer and authorized factory representative shall certify that the rotor and overspeed control design and fabrication conform to current engineering practices at the time of application. No changes or alterations from certified design shall be permitted unless accompanied by a certified registered engineer's and the authorized factory representative's statement of certification.
- "Up wind turbines" are required.
- Constant velocity turbines are preferred. Variable speed turbines must submit additional data concerning noise when their revolutions per minute exceed 25 rpms.

- Visual appearance shall be limited by the use of paint color and finishes that minimize reflectivity and create a consistent appearance among turbines and turbine components.
 - At the time of application, a paint sample shall be provided for all visible turbine components to demonstrate consistent appearance in paint finish and color.
 - Coatings shall be defined according to ISO 2813:2014 (or most recent version utilized at the time of turbine production) at a viewing angle of 60 degrees with a gloss rating of less than or equal to 30 gloss units.
 - All turbine components shall meet a gloss rating specification of equal to or less than 30 gloss units throughout special land use or shall be recoated at the owner's expense within 180 days of a determination of non- compliance.
 - The Planning Commission, or designated staff, shall ensure verification of paint finishes, color, and gloss rating prior to the erection of the turbine components, at the expense of the wind energy conversion system owner, through a third- party qualified tester using ISO 2813:2014 (or most recent version utilized at the time of turbine production) to demonstrate compliance.
 - If the Planning Commission determines that additional testing of the paint finish is needed at any point during the duration of the special land use to confirm compliance with the 30- gloss unit maximum, testing shall be completed, at the expense of the wind energy conversion system owner, by a third- party qualified tester selected by the Planning Commission.

• Lighting:

 Lighting for towers shall be limited to that which is required by the FAA or by law. It shall be shielded to prevent glare or ground visibility to the extent possible and at the lowest light intensity and slowest pulse allowed by the FAA.

• Vegetation/Tree-Cutting:

 Clear cutting of trees for the express purpose of operating a WECS shall be discouraged.

• Parcel Pooling:

- Parcel pooling shall be prohibited except for Utility Scale Wind Energy Conversion Systems
- Access Drives:

• The utilization of roads and the road right of way for the construction of a wind energy conversion system must meet the requirements set forth by the Mason County Road Commission.

• Utilities and Wiring:

- The electrical transmission line connecting all commercial wind tower generators to the public utility distribution system shall be located underground.
- The electrical wires used to connect the turbine tower to its step-up transformer shall be installed at a depth of 48 inches or more below ground.
- Electric transmission lines extending from a wind turbine to a sub-station should be placed underground to a minimum depth of 4 feet to allow for continued farming and existing land use operations in the vicinity of the WECS, and to prevent avian collisions and electrocutions. All other aboveground lines, transformers, or conductors should comply with the Avian Power Line Interaction Committee (APLIC) regulations.

• Signage:

- Due to the potential public hazards, a sign displaying the toll- free telephone number for emergency calls and information shall be posted. The sign shall also include a unique identifier and GPS location of the tower. Additional signage shall warn of high voltage and other dangers. Posted signs shall be maintained in a legible fashion.
- \circ No advertising of any kind shall be allowed on the wind turbine

o Safety

- All WECS shall be designed to prevent unauthorized access to electrical and mechanical components and shall have access doors that are kept securely locked at all times when service personnel are not present. All spent lubricants and cooling fluids shall be properly and safely removed in a timely manner from the site of the WECS. A sign shall be posted near the tower or Operations and Maintenance Office building that will contain emergency contact information. A sign shall be placed at the road access to a wind turbine to warn visitors about the potential danger of falling ice. The minimum vertical blade tip clearance from grade shall be twenty- five (25) feet for a WECS employing a horizontal axis rotor.
- All towers or poles must be unclimbable by design or protected by anticlimbing devices such as:
 - \circ a. Fences with locking portals at least six (6) feet high
 - o b. Anti-climbing devices twelve (12) feet from base of pole

• System Operation and Maintenance:

- A wind energy conversion system must be maintained and kept in operational working order or shall be removed by the owner of the wind energy conversion system. Any wind energy conversion system, or part of a wind energy conversion system such as a wind turbine generator, that has not produced electrical energy for 12 consecutive months shall be deemed to be abandoned; provided, however, that the owner or operator of the wind turbine may apply to the Planning Commission, not less than three months prior to the expiration of said 12-month period, for one additional extension of up to twelve months upon establishing, to the satisfaction of the Planning Commission, that the lack of production was caused by reasons beyond the control of the owner or operator. In determining whether such abandonment has occurred, the Planning Commission may request, and the operator, system owner, or property owner shall provide written documentation accurately indicating the amount of electrical energy produced by the wind energy conversion system during said 12-month period. It shall be the obligation of the wind energy conversion system owner to remove the abandoned wind energy conversion system.
 - To ensure that an abandoned wind energy conversion system is removed, a performance bond or letter of credit, in an amount determined by the Planning Commission to be sufficient to cover the entire cost of removal, shall be submitted by the applicant prior to the issuance of the Special Land Use. To assist the Planning Commission in determining the amount of the performance bond or letter of credit, the applicant may submit information regarding the estimated cost to remove a wind energy conversion system.
 - The performance bond or letter of credit shall be conditioned upon the timely and faithful performance of the requirements of this ordinance and the Special Land Use. The performance bond or letter of credit shall remain in effect for the duration of the Special Land Use. The amount of the performance bond or letter of credit shall be adjusted at least every three years to reflect changes in the estimated cost of removal, based on the most recent inflation index for the cost of comparable services, as published by the U. S. Bureau of Labor Statistics, or other applicable federal agency or other commonly accepted index.
 - If the wind energy conversion system owner fails to remove the wind energy conversion system as required by this Section, then the Township is entitled to use the proceeds from the performance bond or letter of credit to have the wind energy conversion system removed. Such removal by the Township shall not relieve the owner of the wind energy conversion system from its removal obligation.

- A condition of the performance bond or letter of credit shall be written notification by the issuing company or institution to the Township Zoning Administrator when the performance bond or letter of credit is about to expire or be terminated.
- The wind energy conversion system owner or operator shall provide the Township Zoning Administrator with a copy of the yearly maintenance inspection.
- Failure to keep the performance bond or letter of credit in effect while a wind energy conversion system or weather testing tower is in place will be a violation of the Special Land Use approval. If a lapse in the performance bond or letter of credit occurs, the Township will use all available remedies including revocation of the Special Land Use approval.
- If there is a mechanical failure resulting in an abnormal sound emission, release of a pollutant, or a public safety hazard, the Zoning Administrator shall be notified of the event the next day of business following the event. The applicant shall provide the Township at the time of application an operational procedure for this event, a mitigation strategy, and appropriate emergency contact information. A written report describing the failure and the owner's response to the failure shall be submitted to the Zoning Administrator within 10 business days of the event. Sound emitted from a wind turbine generator that is the result of a mechanical failure or lack of maintenance may not be subject to the complaint resolution procedure. Emergency contact information and a turbine reference number shall be placed in an appropriate location near the site of the turbine, such as at the gate for the access road, so it can be viewed without trespassing on private property.

• Performance Review:

The Planning Commission shall require a performance review of the 0 Special Land Use on a three-year basis or as it may be required. The three-year time period commences after the first turbine of the wind energy conversion system becomes operational. The Planning Commission shall provide the performance review and the Township shall perform, where reasonably practicable, investigation regarding a complaint or other matter requiring a performance review. In its sole discretion, the Township may require the assistance of an independent third party due to the specialized nature of the complaint, conflicting evidence, or other condition. The reasonable cost of an independent thirdparty consultant shall be at the expense of the wind energy conversion system owner. Failure to maintain compliance of this ordinance shall result in enforcement action which may include the termination of the Special Land Use, or portions of the Special Land Use. The purpose of the performance review is to evaluate the status of:

- Compliance with Special Land Use: Compliance with the conditions set forth by the Special Land Use, such as specific mitigation measures or operation procedures.
- Ownership Change: Changes in ownership or operation of the wind energy conversion system.
- Avian or Bat Mortality: A significant avian or bat mortality event that exceeds projected impacts described in the Wildlife Study as required in this ordinance.
- o Other: Other matters as determined by the Planning Commission.
- Unresolved and/or repeated complaints: A complaint taking longer than thirty (30) days to resolve may require a performance review unless otherwise specified in the ordinance. If after the performance review and further investigation, the Planning Commission verifies that alleged ordinance violations are the result of the operation or condition of the wind energy conversion system, the owner/operator shall eliminate the non-compliance by mitigation or other measures which may include temporary operational changes. The Planning Commission shall establish the effective date of the mitigation measure based on the nature of the mitigation.
- As a condition of the Planning Commission conducting a performance review, the complainant shall be required to allow Township staff, the wind energy conversion system owner or designated staff, or other authorized personnel such as an engineer or acoustic professional, on the property of the complainant for further investigation and testing.
- Actions taken by the Planning Commission to terminate or modify the Special Land Use, portions of the Special Land Use, or the conditions of the Special Land Use shall require a public hearing and notification to the wind energy conversion system owner pursuant to the conditions of the original permit.

• Decommissioning:

- All tower parts and related transmission lines shall be removed if the turbine has been inoperable for a period of one (1) year unless provided documentation, which indicates attempt to service or sell the operations, may be used to extend the one-year period one additional year. The site shall be returned to its original condition upon removal of all equipment.
- A Planning Commission approved decommissioning plan indicating 1) the anticipated life of the project, 2) the estimated decommissioning costs net of salvage value in current dollars, 3) the method of ensuring that funds will be available for decommissioning and restoration, 4) the anticipated manner in which the project will be decommissioned and the site

restored, and 5) the review of the amount of the performance guarantee based on inflation and current removal costs to be completed every three (3) years, for the life of the project, and approved by Planning Commission.

• Complaint Resolution:

- The purpose of this section is to provide the public with a mechanism to file a complaint with the wind energy system owner and the Zoning Administrator and receive a timely response from the wind energy conversion system owner regarding alleged wind energy conversion system ordinance violations. The applicant shall submit procedures which it intends to implement for receiving, acting upon, and resolving complaints or allegations that the wind energy conversion system is not in compliance with this ordinance.
 - Complaint resolution procedures must be presented at the time of application and must meet the approval of the Planning Commission prior to approval of a Special Land Use. Those procedures, at a minimum, shall:
 - Require the system owner to accept complaints regarding noncompliance with the ordinance from all property owners within the project boundary and up to one mile radius of a wind turbine generator.
 - Provide a telephone number and mailing address at which the operator can be contacted for purposes of submitting complaints or allegations of non-compliance.
 - Require that all such complaints or allegations be submitted in writing.
 - As a condition of the wind energy conversion system owner acting on the complaint, require that a complainant allow the wind energy system owner or designated staff, or other authorized personnel such as an engineer or acoustic professional, on the property of the complainant for further investigation and testing.
 - Set forth information that must be included in the complaint or allegation.
 - Require that a complaint is acknowledged in writing by the wind turbine owner to both the complainant and the Zoning Administrator within five (5) business days of receipt of said complaint.
 - Set forth the number of days, not to exceed thirty (30), in which the operator shall investigate and resolve any and all

complaints or allegations, either by way of correction or formal denial of non-compliance.

- Require the operator to advise the Zoning Administrator in writing of the resolution of any complaint or allegation of noncompliance within thirty (30) days of its receipt of the same.
- Any complaint not resolved within thirty (30) days shall result in a performance review by the Planning Commission as described in (SECTION # REQUIRED). Resolution or mitigation of a complaint that involves construction, landscaping, testing or other significant alteration/operational condition that is dependent on seasonal or other conditions may exceed thirty (30) days if approved by the Planning Commission.
- It shall be a violation of this ordinance to modify the approved complaint resolution procedures without the prior approval of the Planning Commission.

• Application Procedures

- An application for a commercial WECS shall be made, in writing, to the Hamlin Township Zoning Administrator. The permit application shall include, but is not limited to, the following:
 - Name and address of the applicant.
 - o Identification of all owner/operators of the applying entity.
 - Legal description of property and the leased portion of the property, if applicable, together with a copy of the applicant's deed or lease pertaining to the said parcel. All active easements and other similar agreements that affect the title to the property shall be noted.
 - A scaled plan showing the location, type, and height of all proposed buildings, roads (public and private), structures, electrical lines, towers, guy wires, guy wire anchors, security fencing, and other above ground structures associated with the WECS. It should also include on-site land use and zoning and adjacent uses (including buildings and structures thereon) within ½ mile of the exterior boundaries of the parcel, regardless of municipality. It should include the proposed removal of any existing vegetation. It should include a topographic map with a ten (10) foot contour interval based on 7 ½ minute USGS (United States Geological Survey) topographic sheets and topographic map and terrestrial and arial photographs showing topography of entire parcel and showing all improvements.
 - Copy of written notification, by registered letter, to and any responses from all individuals within ½ mile of property owners of the proposed WECS.

- Supporting data shall be submitted from a year-long data gathering process that demonstrates sufficient wind to sustain electrical production for 365 consecutive days.
- Written notification to and any response from the local utility stating the feasibility of interconnection.
- A copy of written notification, by registered letter, to and any response from the Federal Aviation Administration and the Mason County Airport Authority regarding the intent to construct WECS. Utility-Scale WECS shall comply with applicable utility, Michigan Public Service Commission, Federal Energy Regulatory Commission interconnection standards, FAA requirements, and tall structures requirements, including but not limited to:
 - Federal Aviation Administration (FAA) requirements. The minimum FAA lighting standards shall not be exceeded. The lighting plan submitted to the FAA shall include an Aircraft Detection Lighting System (ADLS) for the utility-scale WES. The tower shaft shall not be illuminated unless required by the FAA.
 - Michigan Airport Zoning Act (Public Act 23 of 1950 as amended, MCL 259.431 et seq.).
 - Michigan Tall Structures Act (Public Act 259 of 1959 as amended, MCL 259.481 et seq.).
 - Local jurisdiction airport overlay zone regulations.
- A copy of written notification, by registered letter, to and any response from the Federal Communications Commission regarding the intent to construct WECS.
- A copy of written notification, by registered letter, to and any response from any microwave communications link operation located within two (2) miles of the WECS.
- A written formal complaint process to address any and all complaints by area residents.
- Copies of the construction plan will be provided. All information of an engineering nature submitted by the applicant and/or required by this ordinance, whether civil, mechanical or electrical, shall be certified by a licensed engineer. The engineer shall certify, in writing, that the WECS will be structurally sound and will comply with all applicable building and code requirements.
- The developer shall supply current data showing migratory routes, avian nesting sites, feeding areas of protected species, and sensitive areas. The developer shall submit an inventory of threatened and/or endangered species or species of concern in the vicinity of the proposed site. Vicinity shall be based on the species.
- A plan shall be submitted which includes the estimated cost of removal and restoration of the site to its original condition. A bond shall be required equal to 110% of the estimated removal and restoration cost.

- Engineering data concerning construction of the tower base must be submitted with an application and site plan. The base of the wind turbine must be constructed in such a manner that upon removal of said tower, the soil will be restored to its original condition to a depth of eight (8) feet.
- The compatibility of the tower structure with the rotors and other components of the wind energy conversion systems shall be certified by a certified, registered engineer and by the authorized factory representative. In addition, the lowest point of the blade shall be a minimum of twenty- five (25) feet above the ground.
- Environment: The application will demonstrate mitigation measures to minimize potential impacts on the natural environment including, but not limited to wetlands and other fragile ecosystems, historical and cultural sites, and antiquities, as identified in the Environmental Analysis. The application shall demonstrate compliance with:
 - Michigan Natural Resources, MCL 324.101 et seq.) (including but not limited to: Part 31 Water Resources Protection (MCL 324.3101 et seq.)
 - Part 91 Soil Erosion and Sedimentation Control (MCL 324.9101 et seq.)
 - Part 301 Inland Lakes and Streams (MCL 324.30101 et seq.)
 - Part 303 Wetlands (MCL 324.30301 et seq.)
 - Part 323 Shoreland Protection and Management (MCL 324.32301 et seq.)
 - Part 325 Great Lakes Submerged Lands (MCL 324.32501 et seq.)
 - Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.)
- Avian Study Required.
 - a. At the time of application, the applicant shall submit a wildlife study, completed by a qualified professional, to assess the potential impacts of the proposed wind energy conversion system upon bird and bat species. The wildlife study shall include the results of an environmental review request from the Michigan Department of Natural Resources, a literature review for threatened and endangered species and for birds and bats, the results of supplemental environmental surveys conducted by the applicant to provide information related to critical flyways, migratory routes, feeding areas, and/or nesting sites for protected species. It is the intent of this ordinance to reasonably consider and protect avian and bat species, not just those that are endangered or threatened.

The applicant must identify any plans for post-construction monitoring and studies. The analysis shall also include an explanation of potential impacts and proposed mitigation plans, if necessary.

- b. A qualified, third- party review of the applicant's wildlife studies and/or environmental surveys may be required by the Planning Commission.
- c. The Planning Commission may require a post-construction bird and bat mortality study completed by a third-party professional selected by the Planning Commission. The timing of such a study shall be specified as a condition of the Special Land Use.
- d. A wind energy conversion system development application shall adhere to and comply with all guidelines and recommendations made by the United States Fish and Wildlife Service (USFWS) regarding the siting, design, and operation of a wind energy conversion system. The application shall include documentation of all studies, consultations, and recommendations made by or with the USFWS regarding the placement of wind turbine generators and operation of the wind energy conversion system. Recommendations shall be taken under advisement by the Planning Commission for implementation.
- The certified registered engineer and authorized factory representative shall certify that the construction and installation of the wind energy conversion system meets or exceeds the manufacturer's construction and installation standards.
- Preconstruction Noise Background Survey: The applicant shall provide a 0 noise background study at the time of application which indicates Leq, L10, and L90 ten-minute sound levels using A-weighting. For applications submitted after the effective date of this ordinance, the applicant shall submit proposed measurement locations to the Planning Commission in advance of the survey for review and approval. Measurement procedures should generally follow the most recent versions of ANSI S12.18, and ANSI S12.9, Part 3 (with or without an observer present) guidelines. The selected test locations shall be described with GPS coordinates or some other level of detail such that the location can be used by others to repeat or verify sound measurements. Measurements shall be taken using an ANSI or IEC Type 1 Precision Integrating Sound Level Meter. The study must include a minimum of a four- day (96-hour) testing period, including one Sunday, and produce data that includes a variety of ground and hub height wind speeds, at low (between 4 and 7 m/s) medium (7-10 m/s) and high (10m/s or more and/or capable of producing maximum power). The noise background study shall report for the period of monitoring topography, temperature, weather patterns, sources of ambient sound,

and prevailing wind direction. The study shall include a map showing proposed wind turbine locations and all occupied buildings.

- Sound Modeling Study: A predictive sound study of turbine noise shall accompany an application to verify that ordinance requirements can be met for dBA sound levels. Due to the statistical uncertainty of sound propagation models, environmental factors, and variable wind shear, sound modeling shall demonstrate that the wind energy conversion system will not exceed 55 dBA (10 min- LAeq) at the property line of any parcel and 55 dBA (10 min- LAeq) at any dwelling.
 - The applicant shall present the maximum Sound Power Level of the proposed turbine on both the dBA and dBC scales, and will calculate the difference [dBC-dBA] in decibels and compare it to the 20- decibel threshold in IEC 61400-11:2002+A1:2006, as an indicator of whether the turbine is likely to produce low-frequency noise that could create annoyance.
 - The sound modeling must follow the most recent version of International Standard, ISO 9613-2 "Acoustics-Attenuation of sound during propagation outdoors – Part 2: General method of calculation."
 - The applicant shall identify each operational component of a wind turbine (other than the spinning blades) that will produce a sound that will be audible at the property line of a parcel.
 - The Planning Commission shall require the applicant to implement measures to mitigate and/or eliminate an operational sound (other than the spinning blades).
 - Failure to submit information on all predictable, audible operational sounds of the wind turbines (such as yawing, cooling fans, hydraulics or cooling systems, etc.) may result in a violation of the Special Land Use.
- Post Construction Sound Survey: Documentation of sound pressure level measurements shall be provided to the Zoning Administrator by a third-party qualified professional selected by the Planning Commission and at the expense of the wind energy system owner within 12 months of the commencement of the operation of the project unless complaints necessitate sooner. The post construction study shall be performed at the same locations as the pre- construction study unless additional or alternative locations are required by the Planning Commission. The study should generally follow the procedures in the most recent versions of ANSI S12.9 Part 3 (with an observer present) and ANSI S12.18. All sound pressure levels shall be measured with instruments that meet ANSI or IEC Type 1 Precision integrating sound level meter performance specifications. In addition to measuring A-weighted sound levels, at least

one monitoring location shall collect one third octave band data down to 1 Hertz. As part of the study, octave band data must be measured.

- Testing Procedures shall comply with pre-construction procedures.
- Non-Compliance: Should the sound study indicate a non-compliant measurement, the owner of the wind energy conversion system will be required to obtain compliance through mitigation or other measures within sixty 60 days.
- Wind Rose Chart. The applicant shall submit a Wind Rose Chart at the time of the application. This is a chart or graph that describes 12 months (or more) of wind data collected from the proposed project area. This graph or chart will demonstrate direction, duration, and intensity of the wind. These data will be for each height of wind sensor mounted on the meteorological tower.
- Low Frequency Sound and/or Vibration. The applicant shall provide acoustic modeling at the time of application to assess potential low frequency or vibration problems. The modeling study of low frequency sound and vibration shall demonstrate meeting: (1) ANSI S12.9/Part 4 Annex D threshold for minimal annoyance and beginning of rattles from outdoor low frequency noise as summarized in Section 2.2 2 of the March-April, 2011 Noise Control Eng. article by O'Neal, et al. and (2) the ANSI S12.2 sound level limits for moderately perceptible vibration and rattles within homes as modified to equivalent outdoor sound limits in Table 2 of the March-April, 2011 Noise Control Eng. Journal article by O'Neal, et al.. The ANSI S12.2 interior sound level limits for low frequency sound and perceptible vibration within homes, as modified to equivalent outdoor sound limits in Table 2 of the March April, 2011 Noise Control Eng. Journal article by O'Neal, et al. shall be utilized to determine if outdoor sound levels will create perceptible vibration or low frequency problems indoors. If the post-construction sound survey outdoor octave band sound level measurements reveal that low frequency sound from wind turbines at the exterior of an unpooled, occupied or non-occupied building may create a vibration or low frequency noise problem, then further studies should be conducted to assess the problem. The further studies shall use the above referenced standards (ANSI S12.2 and ANSI S12.9/Part 4 Annex D). If the further study indicates that the low frequency sound/vibration exceeds acceptable levels, mitigation may be required by the Planning Commission. Mitigation may include operational changes to the turbine, modifications to the subject building or buildings, or other measures as determined by the Planning Commission.
- Tonality: If a tone is observed from a turbine during the post construction sound survey or at a later date (such as due to a malfunctioning gearbox), the WECS shall be brought into compliance with the most recent standards within sixty (60) days.

Solar Energy

- Solar Energy System (SES): A system that converts solar energy into electricity or thermal energy through the use of solar panels or other solar energy devices. This includes all necessary components such as panels, inverters, mounting systems, and associated infrastructure.
- Rooftop Solar Energy System: A solar energy system installed on the roof of a building, designed to provide electricity or thermal energy primarily for on-site use.
- Ground-Mounted Solar Energy System: A solar energy system installed on the ground, designed to provide electricity or thermal energy either for on-site use or for sale to the grid.
- Utility-Scale Solar Energy System: A solar energy system designed to generate electricity for sale to the grid, typically involving large arrays of solar panels.
- Building-Integrated Solar Energy System: A solar energy system that is an integral part of a primary or accessory building or structure (rather than a separate mechanical device), replacing or substituting for an architectural or structural component of the building or structure. Building-integrated systems include, but are not limited to, photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, skylights, and awnings.
- Dual Use: A solar energy system that employs one or more of the following land management and conservation practices throughout the project site:
 - Ground Cover: Shall consist of native plants to the area unless the area is actively being farmed. The system operator shall remove any plant that is considered an undesirable, non-native invasive species at the operator's expense. Restoration after decommissioning shall be done only with native species. Care shall be taken to encourage pollinators to inhabit the area.
 - Forage: Solar sites that incorporate rotational livestock grazing and forage production as part of an overall vegetative maintenance plan.
- Agrivoltaics: Solar sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.
- Invasive Plant: Non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.
- 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.
- Non-Participating Lot(s): One or more lots for which there is not a signed lease or easement for development of a principal-use SES associated with the applicant project.
- Participating Lot(s): One or more lots under a signed lease or easement for development of a principal-use SES associated with the applicant project.
- Photovoltaic (PV) Cell: A semiconductor material that generates electricity from sunlight.
- Principal-Use Solar Energy System: A commercial, ground-mounted solar energy system that converts sunlight into electricity for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

- Repowering: Reconfiguring, renovating, or replacing an SES to maintain or increase the power rating of the SES within the existing project footprint.
- Solar Carport: A solar energy system of any size that is installed on a structure that is accessory to a parking area, and which may include electric vehicle supply equipment or energy storage facilities. Solar panels affixed on the roof of an existing carport structure are considered a Roof-Mounted SES.
- Solar Energy System (SES): 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 electric grid.
- Wildlife-Friendly Fencing: A fencing system with openings that allow wildlife to traverse over or through a fenced area.
- Maximum Sound Level (Lmax): The maximum sound pressure level for a given period of time or noise event
- Utility Scale Solar Energy System: A solar energy system that meets one or more of the following:
 - It is primarily used for generating electricity for sale and distribution to an authorized public utility for use in the electrical grid;
 - The total surface area of all solar collector surfaces exceeds ten-thousand 10,000 square feet; and/or
 - It is a principal use or principal structure on a parcel.

Solar Energy Systems (SES)

- Building-Mounted Solar Energy Collectors (BMSEC):
 - Ordinance Structure:
 - SES for personal use may be permitted in all districts and require a Special Land Use permit and shall be limited to 80kW.
 - Permitted Land Uses and Conditional Uses:
 - Personal use only SES are permitted in all zoning districts where structures of any sort are allowed under Special Land Use, and shall meet the following requirements outlined in the Use Standard:

• Use Standard

- These systems may be established as accessory uses in all zoning districts subject to the following conditions.
- Maximum Height. Building-mounted solar energy collectors shall be attached directly to the building and shall not be taller than the peak of the building to

which they are attached. BMSEC's are exempt from any rooftop equipment or mechanical system screening.

- Obstruction. Building-mounted solar energy collectors shall not obstruct solar access to adjacent properties.
- Nonconformities: A Roof-Mounted SES or Building-Integrated SES installed on a nonconforming building, structure, or use shall not be considered an expansion of the nonconformity.
- Application: All BMSEC applications must comply with site plan review requirements. Applications for Roof-Mounted SES must include horizontal and vertical elevation drawings that show the location and height of the SES on the building and dimensions of the SES.

• Ground-Mounted Solar Energy Collectors (GMSEC):

• Ordinance Structure:

• Permitted by right in all districts and require a Special Land Use permit.

• Permitted Land Uses and Conditional Uses:

• Permitted in all zoning districts where structures of any sort are allowed, and shall meet the following requirements outlined in the Use Standard:

• Use Standard

- These systems are permitted in all zoning districts as accessory uses subject to the following conditions.
- Rear and Side Yards. The unit may be located in the rear yard or the side yard but shall be subject to the setbacks for accessory buildings.
- Front Yard. The unit may be located in the front yard only if located not less than two hundred (200) feet from the front lot line.
- Obstruction. Ground-mounted solar energy collectors shall not obstruct solar access to adjacent properties.
- Nonconformities: A Ground-Mounted SES installed on a nonconforming lot or use shall not be considered an expansion of the nonconformity.
- Maximum Size:
 - Residential uses. There shall be no more than three percent (3%) of the lot area, up to two thousand (2,000) square feet, of collector panels on a ground-mounted solar energy collector system. For determining lot area coverage, the solar collector surface area shall be used. Roof mounted solar is excluded from this calculation, however, calculation shall be included in maximum 25% lot coverage.

 Agricultural, Commercial, and Industrial use Solar Energy Systems. There shall be no more than **ten thousand (10,000)** square feet of solar collector surface on a ground-mounted solar energy collector system unless a Utility Scale Solar Energy System is approved.



- Maximum Height:
 - Residential uses. The maximum height shall be twelve (12) feet, measured from the natural grade below the unit to the highest point at full tilt.
 - Agricultural, Commercial, and Industrial use Systems. The maximum height shall be twenty- five (25) feet, measured from the natural grade below the unit to the highest point at full tilt.



ILLUSTRATION 3-04 SOLAR PANEL HEIGHT, WIDTH, AND COMPONENTS

- Screening. Screening shall be required in cases where a ground-mounted solar energy collector impacts views from adjacent residential properties. Screening methods may include the use of material, colors, textures, screening walls, and landscaping that will blend the unit into the natural setting and existing environment.
- Exemptions: A GMSCW used to power a single device or specific piece of equipment such as a lawn ornament, lights, weather station, thermometer, clock, well pump or other similar singular device is exempt from Section. <u>Define GMSCW</u>
- Nonconformities: A Ground-Mounted SES installed on a nonconforming lot or use shall not be considered an expansion of the nonconformity.
- Application: All GMSCW applications must comply with the site plan review. Applications for Ground Mounted SES must include drawings that show the location of the system on the property, height, tilt features (if applicable), the primary structure, accessory structures, and setbacks to property lines. Accessory use applications that meet the ordinance requirements shall be granted administrative approval. <u>Define GMSCW</u>
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• Small-Scale Solar Energy Systems:

• Ordinance Structure:

- o Permitted by right in all districts and requires a Special Land Use permit.
- Permitted Land Uses and Conditional Uses:
 - Permitted in all zoning districts where structures of any sort are allowed, and shall meet the following requirements outlined in the Use Standard:

• Use Standard:

- This section applies to any system of small-scale solar energy collector systems. This section does not apply to solar energy collectors mounted on fences, poles, or on the ground with collector surface areas less than five (5) square feet and less than five (5) feet above the ground, nor does this section apply to Utility Scale solar energy collector systems.
- Permit Required. All small-scale solar energy systems shall be constructed, installed, operated, and maintained in strict accordance with the Michigan Building Code, the Electrical Code, and the manufacturer's specifications. The installation of the solar energy system shall not commence until all necessary permits have been issued.
- Glare and Reflection. The exterior surfaces of solar energy collectors shall be generally neutral in color and substantially non-reflective of light. With the exception of the energy collecting surface, the color of framing and structural equipment shall be muted soft white, gray, galvanized, or other similar neutral color that blends into the environment or structure on which it is located. The Planning Commission may request that a paint sample be provided to demonstrate consistent appearance in paint finish and color. A unit may not be installed or located so that sunlight or glare is reflected into neighboring structures or onto adjacent roads or private roads.
- Installation:
 - a. A solar energy collector shall be permanently and safely attached to the ground or structure. Solar energy collectors, and their installation and use, shall comply with building codes and other applicable Township, County and State requirements.
 - b. Solar energy collectors shall be installed, maintained, and used only in accordance with the manufacturer's directions. Upon request, a copy shall be submitted to the Township prior to installation.
- Power Lines: On-site power lines between solar panels and inverters shall be placed underground.
- Abandonment and Removal. A solar energy collector system that ceases to produce energy on a continuous basis for twelve (12) months will be considered abandoned. Following the abandonment of a solar energy collector system, the following standards are applicable:
 - The responsible party may reinstate the system up to six (6) months after the system is declared abandoned if the Township is given substantial evidence of the responsible party's intent to maintain and reinstate the operation of that system.
- The responsible party shall remove all equipment and facilities and restore the lot to its condition prior to the development of the system within one (1) year of abandonment.

- Drainage and Ground Cover. Proposed drainage and stormwater management shall be reviewed by the County Drain Commissioner and all Utility Scale solar energy systems shall not be located within seventy-five (75) feet of a drainage easement. Ground cover beneath the solar energy collectors is required to be planted with native plantings which benefit pollinators, decrease erosion, and/or improve wildlife habitat, unless specifically modified by the Planning Commission. Supports shall be constructed to preserve any drainage field tile and/or drainage system. Any and all broken/missing field tiles shall be repaired and made in operable condition as soon as possible but no more than three (3) months after damage and/or failure. Sites bound by a Farmland Development Rights (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.
- Noise. Noise emanating from the Small-Scale solar energy collector system, including inverter noise, shall not exceed forty (40) decibels (dBA) Lmax as measured from at the property line of an adjoining non-participating lot. The Planning Commission may reduce this maximum noise level in order to protect adjacent residents and property owners. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard.
- Exterior Lighting. Exterior lighting of the Small-Scale solar energy system shall be limited to the minimum necessary, supplied with downward facing lighting that is one hundred percent (100%) cut off above the horizontal plane. The light from any illuminated source shall be designed so that the light intensity or brightness at a distance of twenty (20) feet from the perimeter of the utility grid solar energy system shall not exceed one (1) foot candle. The County may require the submittal of a photometric plan for review to make this determination. Flashing or intermittent lights are prohibited.
 - Property enrolled in PA 116 Farmland and Open Space Preservation Program shall not be eligible for use as part of a Small-Scale or Utility Scale solar energy system.
 - The applicant shall provide evidence of compliance with applicable State of Michigan statutes including, but not limited to: Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.); Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding Mason County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL 324.36501 et. seq.); and such other applicable laws and rules in force at the time the application is considered.
- Fencing. For the purpose of restricting unauthorized access to the site, the Planning Commission may require that the perimeter of a Small-Scale or Utility Scale solar energy system be fenced in with at least a six (6) foot high fence.

- Operation and Maintenance Plan. The applicant shall submit a plan for the operation and maintenance of the solar energy system, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures of operational maintenance of the installation, as applicable.
- Emergency Services. Upon request by the Township, the owner/operator of the Small-Scale solar energy system shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar energy system shall be clearly marked. The owner/operator shall identify a responsible person for public inquiries throughout the life of the installation. An information sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.
- Maintenance. The Small-Scale or utility scale solar energy system owner/operator shall maintain the facility in good condition at all times.
 - Performance Review. The Planning Commission shall require a performance review of the Special Land Use on a three-year basis or as otherwise required by the Planning Commission. The three-year time period commences upon the Small-Scale or utility scale solar energy system becoming operational. The Planning Commission shall provide the performance review and the Township shall perform, where reasonably practicable, investigation regarding a complaint or other matter requiring a performance review. In its sole discretion, the Township may require the assistance of an independent third party due to the specialized nature of the complaint, conflicting evidence, or other condition. The reasonable cost of an independent thirdparty consultant shall be at the expense of the solar energy system owner or operator. The purpose of the performance review is to evaluate the status of:
 - Compliance with Special Land Use. Compliance with the conditions set forth by the Special Land Use, such as specific mitigation measures or operation procedures.
 - Ownership Change. Changes in ownership or operation of the Small-Scale solar energy system.
 - \circ Other. Other matters as determined by the Planning Commission.
 - Unresolved and/or repeated complaints. A complaint taking longer than thirty (30) days to resolve may require a performance review unless otherwise specified in the ordinance. If after the performance review and further investigation, the Planning Commission verifies that alleged ordinance violations are the result of the operation or condition of the solar energy system, the owner/operator shall eliminate the non-compliance by mitigation or other measures which may include temporary operational changes. The

Planning Commission shall establish the effective date of the mitigation measure based on the nature of the mitigation.

- As a condition of the Planning Commission conducting a performance review, the complainant shall be required to allow Township staff, the Small-Scalesolar energy system owner, operator, or designated staff, or other authorized personnel such as an engineer, on the property of the complainant for further investigation and testing.
- Land Clearing: Land disturbance or clearing shall be limited to what is minimally necessary for the installation and operation of the system and to ensure sufficient all-season access to the solar resource given the topography of the land. Topsoil distributed during site preparation (grading) on the property shall be retained on site.

• Decommissioning:

- The applicant for a solar energy system shall describe the decommissioning and final land reclamation plan to be followed after the anticipated life, abandonment, or termination of the Utility Scale solar energy system, including evidence of proposed commitments with property owners to ensure proper final reclamation of the property.
- Any solar energy system which has reached the end of its useful life or has not operated continuously for one year or more shall be removed and the owner/operator shall be required to restore the site. The owner/operator shall physically remove the installation no more than one hundred and fifty (150) days after the date of discontinued operations and/or notice of abandonment by the County.
- The owner/operator shall notify the Township personally or by certified mail of the proposed date of discontinued operations and plans for removal.
- If the owner/operator fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment, proposed date of decommissioning, or notice of abandonment by the Township, the Township may enter the property and physically remove the installation, and recover the cost thereof.
- Removal of the installation shall consist of the following:

- Physical removal of all aboveground or underground utility-grid solar energy systems, structures, equipment, security barriers, roads, and transmission lines from the site.
- Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
- Stabilization and re-vegetation of the site with native plants as necessary to minimize erosion. If the property was used for agricultural purposes at the time of installation, the property shall be returned to an agricultural ready condition.

• Utility Scale Solar Energy Systems

• Ordinance Structure:

• Shall be permitted by a Special Land Use permit in the Agriculture and Industrial Districts.

• Use Standard

- This section applies to any system of Utility-Scale solar energy collector systems. Nothing in this section shall be construed to prohibit collective solar installations or the sale of excess power through a net billing or net-metering arrangement.
- Site Plan Required. An application for Special Land Use approval for a Utility Scale solar energy system shall include a site plan in accordance with Article 21??. In addition to the information required for site plan approval in Section 18.03???, all applications must also include the following:
 - Equipment and unit renderings
 - Elevation drawings
 - Setbacks from property lines and adjacent structures, and height of proposed structures
 - Written permission from the property owner authorizing the Utility Scale solar energy System
 - $\circ~$ All additional plans and requirements set forth in this Section.
- Permits. No Small-Scale or Utility-Scale solar energy system shall be constructed, installed, operated, maintained, or modified as provided in this section without first obtaining a zoning compliance permit, building permit, and all other applicable permits. The construction, installation, operation, maintenance, or modification of all Small-Scale or Utility-Scale solar energy systems shall be consistent with all

applicable local, state, and federal requirements, and all buildings and structures that comprise a Small-Scale or Utility-Scale solar energy system shall be constructed, installed, operated, and maintained in strict accordance with the Michigan Building Code, the Electrical Code, and the manufacturer's specifications. The installation of the Utility Scale solar energy system shall not commence until all necessary permits have been issued.

 Lot Area and Lot Coverage. Utility Scale solar energy systems shall be located on a lot of at least twenty (20) acres. Small-Scale or Utility Scale solar energy systems shall not exceed the maximum lot coverage of the zoning district in which it is located or thirty-five (35) percent, whichever is less. For determining lot area coverage, the solar collector surface area shall be used.



 Drainage and Ground Cover. Proposed drainage and stormwater management shall be reviewed by the County Drain Commissioner and all utility grid solar energy systems shall not be located within seventy-five (75) feet of a drainage easement. Ground cover beneath the solar energy collectors is required to be planted with native plantings which benefit pollinators, decrease erosion, and/or improve wildlife habitat, unless specifically modified by the Planning Commission. Supports shall be constructed to preserve any drainage field tile and/or drainage system. Any and all broken/missing field tiles shall be repaired and made in operable condition as soon as possible but no more than three (3) months after damage and/or failure. Sites bound by a Farmland Development Rights (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.

- Solar energy collectors and ancillary solar equipment affiliated with a Utility Scale solar energy system shall be located at least three-hundred (300) feet from the lot line(s) of properties not leased or used for Utility Scale solar energy systems and seventy- five (75) feet from all easements and/or rights-of-way. In addition, solar energy collectors and ancillary solar equipment affiliated with a Utility Scale solar energy system shall be located at least three-hundred (300) feet from all existing residential dwellings, as measured from the foundation of the dwelling to the property line. Screening methods may be permitted within the setbacks.
- Height. Utility Scale solar energy systems shall not exceed twenty-five (25) feet in height, measured from the natural grade below the unit to the highest point at full tilt.



ILLUSTRATION 17-02 SOLAR PANEL HEIGHT, WIDTH, AND COMPONENTS

- Noise. Noise emanating from Utility Scale solar energy collector system, including inverter noise, shall not exceed forty (40) decibels (dBA) Lmax as measured from at the property line of an adjoining non-participating lot. The Planning Commission may reduce this maximum noise level in order to protect adjacent residents and property owners. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard.
- Exterior Lighting. Exterior lighting of the Utility Scale solar energy system shall be limited to the minimum necessary, supplied with downward facing lighting that is one hundred percent (100%) cut off above the horizontal plane. The light from any illuminated source shall be designed so that the light intensity or brightness at a distance of twenty (20) feet from the perimeter of the Utility Scale solar energy system shall not exceed one (1) foot candle. The County may require the submittal of

a photometric plan for review to make this determination. Flashing or intermittent lights are prohibited.

- Screening. The Planning Commission may (such as when SES abuts residential) require that a Utility Scale solar energy system be screened from residential properties or public rights-of-way. <u>Landscaping and screening requirements shall</u> comply with Section 3.13 ??? as contained herein and may be waived or modified as allowed in that Section.
- Glare and Reflection. The exterior surfaces and structural components of Utility Scale solar energy collectors shall be generally neutral in color and substantially non-reflective of light. With the exception of the energy collecting surface, the color of framing and structural equipment shall be muted soft white, gray, galvanized, or other similar neutral color that blends into the environment or structure on which it is located. The Planning Commission may request that a paint sample be provided to demonstrate consistent appearance in paint finish and color. A solar collector surface shall not be installed or located so that sunlight or glare is reflected into neighboring structures or onto adjacent streets.
- Location and Siting. Utility Scale solar energy systems shall be located in the area least visibly obtrusive to adjacent residential properties while remaining functional and shall be located within three (3) miles of an electrical substation in existence at the time of application.
 - Property enrolled in PA 116 Farmland and Open Space Preservation Program shall not be eligible for use as part of a Small-Scale or Utility Scale solar energy system.
 - The applicant shall provide evidence of compliance with applicable State of Michigan statutes including, but not limited to: Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.); Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding Mason County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL 324.36501 et. seq.); and such other applicable laws and rules in force at the time the application is considered.
- Obstruction. Utility Scale solar energy systems shall not obstruct solar access to adjacent and neighboring properties.

- Power lines. On site power lines between all structures and ancillary equipment and inverters shall be placed underground.
- Access Drives: New access drives within the SES shall be designed to minimize the extent of soil disturbance, water runoff, and soil compaction on the premises. The use of geotextile fabrics and gravel placed on the surface of the existing soil for the construction of temporary drives during the construction of the SES is permitted, provided that the geotextile fabrics and gravel are removed once the SES is in operation.
- Fencing. For the purpose of restricting unauthorized access to the site, the Planning Commission may require that the perimeter of a Utility Scale solar energy system be fenced in with at least a six (6) foot high fence.
- Signage: An area up to 32 square feet may be used for signage at the project site. Any signage shall meet the setback, illumination, and materials/ construction requirements of the zoning district for the project site.
- Operation and Maintenance Plan. The applicant shall submit a plan for the operation and maintenance of the Utility Scale solar energy system, which shall include measures for maintaining safe access to the installation, storm water controls, as well as general procedures of operational maintenance of the installation, as applicable.
- Emergency Services. Upon request by the Township, the owner/operator of the Utility Scale solar energy system shall cooperate with local emergency services in developing an emergency response plan. All means of shutting down the solar energy system shall be clearly marked. The owner/operator shall identify a responsible person for public inquiries throughout the life of the installation. An information sign shall be posted and maintained at the entrance(s) which lists the name and phone number of the operator.
- Maintenance. The Utility Scale solar energy system owner/operator shall maintain the facility in good condition at all times. Maintenance shall include, but not be limited to, structural repairs, safety-related upgrades, and integrity of security measures. Site access roads or drives shall be maintained to a level acceptable to local emergency services personnel. The owner/operator shall be responsible for the cost of maintaining the solar photovoltaic installation and any access road(s).
- Performance Review. The Planning Commission shall require a performance review of the Special Land Use on a three-year basis or as otherwise required by the Planning Commission. The three-year time period commences upon the Small-Scale

or Utility Scale solar energy system becoming operational. The Planning Commission shall provide the performance review and the Township shall perform, where reasonably practicable, investigation regarding a complaint or other matter requiring a performance review. In its sole discretion, the Township may require the assistance of an independent third party due to the specialized nature of the complaint, conflicting evidence, or other condition. The reasonable cost of an independent third-party consultant shall be at the expense of the utility scale solar energy system owner or operator. The purpose of the performance review is to evaluate the status of:

- Compliance with Special Land Use. Compliance with the conditions set forth by the Special Land Use, such as specific mitigation measures or operation procedures.
- Ownership Change. Changes in ownership or operation of the Utility Scale solar energy system.
- o Other. Other matters as determined by the Planning Commission.
- Unresolved and/or repeated complaints. A complaint taking longer than thirty (30) days to resolve may require a performance review unless otherwise specified in the ordinance. If after the performance review and further investigation, the Planning Commission verifies that alleged ordinance violations are the result of the operation or condition of the Utility Scale solar energy system, the owner/operator shall eliminate the non-compliance by mitigation or other measures which may include temporary operational changes. The Planning Commission shall establish the effective date of the mitigation measure based on the nature of the mitigation.
- As a condition of the Planning Commission conducting a performance review, the complainant shall be required to allow Township staff, the Utility Scale solar energy system owner, operator, or designated staff, or other authorized personnel such as an engineer, on the property of the complainant for further investigation and testing.
- Land Clearing: Land disturbance or clearing shall be limited to what is minimally necessary for the installation and operation of the system and to ensure sufficient all-season access to the solar resource given the topography of the land. Topsoil distributed during site preparation (grading) on the property shall be retained on site.

- Failure to maintain compliance with this ordinance shall result in enforcement action which may include the termination, suspension, or revocation of the Special Land Use, or portions of the Special Land Use. Actions taken by the Planning Commission to terminate or modify the Special Land Use, portions of the Special Land Use, or the conditions of the Special Land Use shall require a public hearing and notification to the renewable energy system owner or operator pursuant to the conditions of the original permit.
- Complaint Resolution. The purpose of this section is to provide the public with a mechanism to file a complaint with the Renewable Energy System owner or operator and the Zoning Administrator and receive a timely response from the renewable energy system owner/operator regarding alleged violations. The applicant shall submit procedures which it intends to implement for receiving, acting upon, and resolving complaints or allegations that the renewable energy system is not operated or maintained in compliance with this ordinance.
 - Complaint resolution procedures must be presented at the time of application and must meet the approval of the Planning Commission prior to approval of a Special Land Use. Those procedures, at a minimum, shall:
 - Require the system owner or operator to accept complaints regarding non- compliance with the ordinance from all property owners within one mile radius of a renewable energy system.
 - Provide a telephone number and mailing address at which the owner or operator can be contacted for purposes of submitting complaints or allegations of non-compliance.
 - Require that all such complaints or allegations be submitted in writing.
 - As a condition of the system owner or operator acting on the complaint, require that a complainant allow the renewable energy system owner or operator or designated staff, or other authorized personnel such as an engineer, on the property of the complainant for further investigation and testing. The complainant may request the presence of a neutral third party, such as a Zoning Administrator as an observer.
 - Set forth information that must be included in the complaint or allegation.

- Require that a complaint is acknowledged in writing by the renewable energy system owner or operator to both the complainant and the Zoning Administrator within five (5) business days of receipt of said complaint.
- Set forth the number of days, not to exceed thirty (30), in which the operator shall investigate and resolve any and all complaints or allegations, either by way of correction or formal denial of noncompliance.
- Require the operator to advise the Zoning Administrator in writing of the resolution of any complaint or allegation of non-compliance within thirty (30) days of its receipt of the same.
- Any complaint not resolved within thirty (30) days shall result in a performance review by the Planning Commission. Resolution or mitigation of a complaint that involves construction, landscaping, testing or other significant alteration/operational condition that is dependent on seasonal or other conditions may exceed thirty (30) days if approved by the Planning Commission
- It shall be a violation of this ordinance to modify the approved complaint resolution procedures without the prior approval of the Planning Commission.
- The renewable system owner or operator shall be provided a reasonable opportunity to cure any violations identified by the Township or its designee.
- Costs: In the event the renewable energy system owner or operator is determined at fault for a violation following the complaint resolution process described above, the owner or operator shall be responsible for all costs incurred by the Township in coming to a resolution, in addition to any other penalties for violations of the Hamlin Township Zoning Ordinance. This section is not a waiver of the Township's authority to seek any relief at law or equity to abate such violations. The Hamlin Township Planning Commission shall be kept apprised of all complaints and shall receive a report outlining the issues, the progress, and the resolution of each such complaint. The Planning Commission shall be authorized to enforce any resolution of such complaint.
- Repowering: In addition to repairing or replacing components to maintain the system, a utility scale renewable energy system may at any time be repowered, without the need to apply for a new special land use permit, by reconfiguring, renovating, or replacing components to increase the power rating within the existing project footprint. a. A proposal to change the project footprint of an existing system

shall be considered a new application, subject to the ordinance standards at the time of the request. Expenses for legal services and other studies resulting from an application to modify a system will be reimbursed to Hamlin Township by the system owner in compliance with established escrow policy.

• Decommissioning:

- The applicant for a Utility Scale solar energy system shall describe the decommissioning and final land reclamation plan to be followed after the anticipated life, abandonment, or termination of the Utility Scale solar energy system, including evidence of proposed commitments with property owners to ensure proper final reclamation of the property.
- Any Utility-Scale solar energy system which has reached the end of its useful life or has not operated continuously for one year or more shall be removed and the owner/operator shall be required to restore the site. The owner/operator shall physically remove the installation no more than one hundred and fifty (150) days after the date of discontinued operations and/or notice of abandonment by the County. Township??
- The owner/operator shall notify the Township personally or by certified mail of the proposed date of discontinued operations and plans for removal.
- If the owner/operator fails to remove the installation in accordance with the requirements of this section within 150 days of abandonment, proposed date of decommissioning, or notice of abandonment by the Township, the Township may enter the property and physically remove the installation, and recover the cost thereof.
- Removal of the installation shall consist of the following:
 - Physical removal of all above ground or underground utility-grid solar energy systems, structures, equipment, security barriers, roads, and transmission lines from the site.
 - Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
 - Stabilization and re-vegetation of the site with native plants as necessary to minimize erosion. If the property was used for agricultural purposes at

the time of installation, the property shall be returned to an agricultural ready condition.

• Financial Guarantee:

- The applicant for a renewable energy system shall provide a form of surety, 0 either through escrow account, letter of credit, bond, or other instrument acceptable to the Township Board of Trustees. The surety shall be maintained with a company licensed to do business in the State of Michigan or a Federalor State chartered lending institution acceptable to the Township. Any bonding company or lending institution shall provide the Township with 90 days' notice of the expiration of the security bond, escrow, or irrevocable letter of credit. In the event of sale or transfer of ownership and/or operation of the utility grid solar energy system, the security bond, escrow, or irrevocable letter of credit shall be maintained throughout the entirety of the process and the new owner or operator shall be required to provide a new security bond, escrow, or irrevocable letter of credit. If at any time during the operation of the Utility Scale solar energy system or prior to, during, or after the sale or transfer of ownership and/or operation of the Utility Scale solar energy system the security bond, escrow, or irrevocable letter of credit is not maintained, the Township may take any action permitted by law, revoke the special land use, order a cessation of operations, and order removal of the system and reclamation of the site.
- The purpose of the surety is to cover the cost of removal of the Utility Scale solar energy system in the event the Township must remove the installation during or after construction. The amount of the financial surety shall not exceed more than 125 percent of all costs of removal and compliance with the additional requirements set forth herein. It shall be submitted by the applicant and be prepared by a qualified engineer. The applicant shall update the surety every three (3) years to ensure that the surety is sufficient compared to inflation. The surety shall be subject to review and approval by the Planning Commission and shall be a condition of Special Land Use approval.

• Severability and Captions:

 This Ordinance and the various parts, sections, subsections, sentences, phrases and clauses thereof are hereby declared severable. If any part, section, subsection, sentence, phrase or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby. The captions included at the beginning of each Section are for convenience only and shall not be considered a part of this Ordinance.

o Repeal

 Any existing ordinance or resolution that is inconsistent or conflicts with this Ordinance is hereby repealed to the extent of any such conflict or inconsistency.

Battery Storage

- Battery Energy Storage System (BESS): A system that stores electrical energy in batteries for later use. This includes all necessary components such as batteries, inverters, cooling systems, and associated infrastructure.
- Utility-Scale Battery Energy Storage System: A battery energy storage system designed to store and supply electricity to the grid, typically involving large-scale battery installations.
- On-Site Battery Energy Storage System: A battery energy storage system designed to store and supply electricity primarily for on-site use, often as an accessory to a renewable energy system.
- Augmentation: The process of supplementing or replacing some or all of the system components to maintain the nameplate capacity (measured in megawatts).
- 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 (BESS): One or more devices, assembled together, capable of storing and discharging electricity primarily intended to supply electricity to a building or to the electrical grid. This includes, but is not limited to, the following: battery cells; enclosures and dedicated-use buildings; thermal, battery, and energy management system components; inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; overhead and underground control, communications and radio relay systems, and telecommunications equipment; utility lines and installations; and accessory equipment and structures.
- 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.
- Decommissioning: The process of removing equipment and other infrastructure associated with a project and restoring the site for viable reuse consistent with the zoning district.
- Dedicated-Use Building: A building that is only used for battery energy storage system components and equipment, as defined in the NFPA 855 Standard for the Installation of Stationary Energy Storage Systems.
- Non-Participating Property: Real property that is not participating property.
- Large Off-Site Battery Energy Storage System: An Off-Site Battery Energy Storage System (BESS) with a nameplate capacity of 50 MW or more and an energy discharge capability of 200 MWh or more.
- Off-Site Battery Energy Storage System: A Battery Energy Storage System (BESS) for the primary purpose of off-site use through the electrical grid.

- Participating Property: Real property that is either owned by an applicant or that is the subject of an agreement that provides for the payment by an applicant to a landowner of monetary compensation regardless of whether any part of the BESS system is constructed on the property.
- Repowering: The process of reconfiguring, supplementing, or replacing some or all of the system components to increase the nameplate capacity (measured in megawatts).

Utility-Scale Battery Energy Storage Facilities

General Provisions. All Utility-Scale Battery Energy Storage Systems are subject to the following requirements:

- Township approval shall be defined as Hamlin Township Planning Commission.
- All Utility-Scale Battery Energy Storage Systems must conform to the provisions of this Ordinance and all county, state, and federal regulations and safety requirements, including applicable building codes, applicable industry standards, and NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems."
- The Township may enforce any remedy or enforcement, including but not limited to the removal of any Utility-Scale Battery Energy Storage System pursuant to the Zoning Ordinance or as otherwise authorized by law if the Utility-Scale Battery Energy Storage System does not comply with this Ordinance.
- Utility-Scale Battery Energy Storage Systems are permitted in the Township as a Special Land Use only in the Agriculture and Industrial Zoning Districts.

Application Requirements. The applicant for a Utility-Scale Battery Energy Storage System must provide the Township with all of the following:

- Application fee in an amount set by resolution of the Township Board.
- A list of all parcel numbers that will be used by the Utility-Scale Battery Energy Storage System; documentation establishing ownership of each parcel; and any lease agreements, easements, or purchase agreements for the subject parcels.
- An operations agreement setting forth the operations parameters, the name and contact information of the operator and owner, the applicant's inspection protocol, emergency procedures, and general safety documentation.
- Current photographs of the subject property including ground level and arial photographs and shall include all neighboring properties.
- A site plan that includes all proposed structures and the location of all equipment, as well as all setbacks, the location of property lines, signage, fences, greenbelts and screening, drain tiles, easements, floodplains, bodies of water, proposed access routes, and road rights of way. The site plan must be drawn to scale and must indicate how the Utility-Scale Battery Energy Storage System will be connected to the power grid.
- A copy of the applicant's power purchase agreement or other written agreement with an electric utility showing approval of an interconnection with the proposed Utility Scale Battery Energy Storage System.

- A written plan for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management, which is subject to the Township's review and approval.
- A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Battery Energy Storage System, including evidence of proposed commitments with property owners to ensure proper final reclamation, repairs to roads, and other steps necessary to fully remove the Utility-Scale Battery Energy Storage System and restore the subject parcels to presystem conditions using native plants wherever appropriate, subject to the Township's review and approval. Pollinator habitat is desirable
- The applicant shall provide a form of surety, either through escrow account, letter of credit, bond, or other instrument acceptable to the Township.
- A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Utility Scale Battery Energy Storage System, which is subject to the Township's review and approval.
- A plan for managing any hazardous waste, which is subject to the Township's review and approval. This is to include solid, gas and liquid components.
- A fire protection plan, which identifies the fire risks associated with the Utility-Scale Battery Energy Storage System; describes the fire suppression system that will be implemented; describes what measures will be used to reduce the risk of fires re-igniting (i.e., implementing a "fire watch"); identifies the water sources that will be available to the local fire department to protect adjacent properties; identifies a system for continuous monitoring, early detection sensors, and appropriate venting; and explains all other measures that will be implemented to prevent, detect, control, and suppress fires and explosions. A training plan shall be implemented and the cost shall be born by the owner/operator to train all local fire, police and EMS personnel on emergency procedure and techniques. The owner operator shall also be responsible for the purchase of any specialized equipment necessary to respond to emergencies. Updated training shall be provided every three (3) years at a minimum. All training shall comply with NFPA regulations.
- Applicant shall provide an evacuation plan and warning system in the event of emergency subject to review and approval by the Township.
- A transportation plan for construction and operation phases, including any applicable agreements with the Mason County Road Commission and Michigan Department of Transportation, which is subject to the Township's review and approval.
- An attestation that the applicant will indemnify and hold the Township harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Utility-Scale Battery Energy Storage System, which is subject to the Township's review and approval.
- Proof of environmental compliance, including compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act; (MCL 324.3101 et. seq.; Part 91, Soil Erosion and Sedimentation Control (MCL 324.9101 et. seq.) and any corresponding County ordinances; Part 301, Inland Lakes and Streams, (MCL 324.30101 et. seq.); Part 303, Wetlands (MCL 324.30301 et. seq.); Part 365, Endangered Species Protection (MCL324.36501 et. seq.); and any other applicable laws and rules in force at the time the application is considered by the Township.

• Any additional information or documentation requested by the Planning Commission, Township Board, or other Township representative.

System and Location Requirements. The site development requirements shall meet or exceed all of the requirements in the underlying district and all of the following:

a. Lighting. Lighting of the Utility-Scale Battery Energy Storage System is limited to the minimum light necessary for safe operation. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Utility-Scale Battery Energy Storage System. The Utility-Scale Battery Energy Storage System must not produce any glare that is visible to neighboring lots or to persons traveling on public or private roads.

b. Security Fencing. Security fencing must be installed around all electrical equipment related to the Utility-Scale Battery Energy Storage System. Appropriate warning signs must be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Battery Energy Storage System. Fence height must be a minimum of eight (8) feet.

c. Noise. The noise generated by a Commercial Utility-Scale Battery Energy Storage System must not exceed 55 dBA Lmax, as measured at the property line of any adjacent parcel.

d. Underground Transmission. All power transmission or other lines, wires, or conduits from a Utility Scale Battery Energy Storage System to any building or other structure must be located underground at a depth that complies with current National Electrical Code standards, except for power switchyards or the area within a substation.

e. Drain Tile Inspections. The Utility Scale Battery Energy Storage System must be maintained in working condition at all times while in operation. The applicant or operator must inspect all drain tile at least once every three years by means of robotic camera, with the first inspection occurring before the Utility-Scale Battery Energy Storage System is in operation. The applicant or operator must submit proof of the inspection to the Township. The owner or operator must repair any damage or failure of the drain tile within sixty (60) days after discovery and submit proof of the repair to the Township. The Township is entitled, but not required, to have a representative present at each inspection or to conduct an independent inspection.

f. Fire Protection.

Before any construction of the Utility-Scale Battery Energy Storage System begins, the Township's fire department (or fire department with which the Township contracts for fire service) will review the fire protection plan and training plan submitted with the application. The fire chief will determine whether the fire protection plan adequately protects the Township's residents and property and whether there is sufficient water supply to comply with the fire protection plan and to respond to fire or explosion incidents. Air filtration and liquid and solid containment systems shall be required as determined by the fire chief and NFPA regulations to prevent contamination of the soil and air surrounding the facility. If the fire chief determines that the plan is adequate, then the fire chief will notify the Township Supervisor or his or her designee of that determination. If the fire chief determines that the plan is inadequate, then the fire chief atoms to the plan, which the applicant or operator of the Utility-Scale Battery Energy Storage System must implement.

- The applicant or operator may amend the fire protection plan from time-to-time in light of changing technology or other factors. Any proposed amendment must be submitted to the fire department for review and approval under subsection (a).
- The Utility-Scale Battery Energy Storage System must comply with the fire protection plan as approved by the fire chief.

g. Insurance. The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least \$5 million per occurrence. The Township shall be listed as an additional insured on the policy at all times.

h. Permits. All required county, state, and federal permits must be obtained before the Utility-Scale Battery Energy Storage System begins operating. A building permit from Mason County is required for construction of a Utility-Scale Battery Energy Storage System, regardless of whether the applicant or operator is otherwise exempt under state law.

i. Decommissioning. If a Utility-Scale Battery Energy Storage System is abandoned or otherwise nonoperational for a period of one year, the property owner or the operator must notify the Township and must remove the system within six (6) months after the date of abandonment. Removal requires receipt of a demolition permit from the Building Official and full restoration of the site to the satisfaction of the Zoning Administrator. The site must be filled and covered with top soil and restored to a state compatible with the surrounding vegetation using native plants that enhance pollinator habitat wherever possible. The requirements of this subsection also apply to a Utility-Scale Battery Energy Storage System that is never fully completed or operational if construction has been halted for a period of one (1) year.

j. Financial Security. To ensure proper decommissioning of a Commercial Utility Scale Battery Energy Storage System upon abandonment, the applicant must post financial security in the form of a security bond or escrow payment in an amount equal to 125% of the total estimated cost of decommissioning, code enforcement, and reclamation, which cost estimate must be approved by the Planning Commission. The operator and the Planning Commission will review the amount of the financial security every two (2) years to ensure that the amount remains adequate. This financial security must be posted within fifteen (15) business days after approval of the Special Land Use application.

k. Extraordinary Events. If the Utility-Scale Battery Energy Storage System experiences a failure, fire, leakage of hazardous materials, personal injury, or other extraordinary or catastrophic event, the applicant or operator must notify the Township immediately.

I. Annual Report. The applicant or operator must submit a report on or before January 1 of each year that includes all of the following:

- Current proof of insurance;
- Verification of financial security; and
- A summary of all complaints, complaint resolutions, and extraordinary events.
- A summary of megawatts sold within prior twelve (12) months

m. Inspections. The Township may inspect a Utility-Scale Battery Energy Storage System at any time by providing 24 hours advance notice to the applicant or operator.

n. Transferability. A special use permit for a Utility-Scale Battery Energy Storage System is transferable to a new owner. The new owner must register its name and business address with the Township and must comply with this Ordinance and all approvals and conditions issued by the Township.

o. Remedies. If an applicant or operator fails to comply with this Ordinance, the Township, may pursue any remedy or enforcement, including but not limited to the removal of any Utility-Scale Battery Energy Storage System pursuant to the Zoning Ordinance or as otherwise authorized by law. Additionally, the Township may pursue any legal or equitable action to abate a violation and recover any and all costs, including the Township's actual attorney fees and costs.

Utility-Scale Battery Energy Storage Systems under PA 233. On or after November 29, 2024, once PA 233 of 2023 is in effect, the following provisions apply to Utility-Scale Battery Energy Storage Systems with a nameplate capacity of 50 megawatts or more and an energy discharge capability of 200 megawatt hours or more. To the extent these provisions conflict with the provisions in subsections 1-3 above, the following provisions control as to such Utility-Scale Battery Energy Storage Systems. This subsection does not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and does not apply to Battery Energy Storage Systems with a nameplate capacity of less than 50 megawatts. but not limited to the removal of any Utility-Scale Battery Energy Storage. All provisions in subsections 1-3 above that do not conflict with this subsection remain in full force and effect.

• Setbacks. Utility-Scale Battery Energy Storage Systems must comply with the following minimum setback requirements, with setback distances measured from the nearest edge of the perimeter fencing of the facility:

Setback Description

Occupied community buildings And dwellings on nonparticipating properties

Public road right of way

Nonparticipating properties

Setback Distance

300 feet from the nearest point on the outer wall

50 feet measured from the nearest edge of a public road right-of-way

50 feet measured from the nearest property line

- Installation. The Utility-Scale Battery Energy Storage System must comply with the version of NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems" in effect on the effective date of the amendatory act that added this section or any applicable successor standard.
- Noise. The Utility-Scale Battery Energy Storage System must not generate a maximum sound in excess of 55 average hourly decibels as modeled at the outer wall of the nearest dwelling located on an adjacent nonparticipating property. Decibel modeling

shall use the A-weighted scale as designed by the American National Standards Institute.

- Lighting. The Utility-Scale Battery Energy Storage System must implement dark sky friendly lighting solutions.
- Environmental Regulations. The Utility-Scale Battery Energy Storage System must comply with
- Host community agreement. The applicant shall enter into a host community agreement with the Township. The host community agreement shall require that, upon commencement of any operation, the Utility-Scale Battery Energy Storage System owner must pay the Township \$2,000.00 per megawatt of nameplate capacity. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the local unit and the applicant.