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Banks Township
Antrim County, Michigan
Ordinance Number 02 of 2023

10 An Ordinance to amend the Banks Township Zoning Ordinance Articles III and IV pertaining to the installation of
11 Utility-Scale Solar Energy Systems.

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The Township of Banks Hereby Ordains:

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Section 1: Purpose.

27 This Ordinance is intended to permit Utility-Scale Solar Energy Systems by regulating their siting, design, and
28 installation to protect public health, safety, and welfare, to ensure their compatibility with adjacent land uses, and
29 protect active farmland, prime soils, and forested properties.

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Section 2: Amendment of Article III.

38 Article III: Definitions of the Banks Township Zoning Ordinance is hereby amended to add the following definitions
39 in their appropriate alphabetical location:

40 Solar Energy: Radiant energy received from the sun that can be collected in the form of heat or light by a solar
41 energy system.

42 Utility-Scale Solar Energy Systems: A system, including all structural components such as bases, mounts, towers,
43 solar collectors, and accessory equipment or structures (e.g. utility interconnections, etc.), in such configuration
44 as necessary to convert solar radiation into thermal, chemical, or electrical energy, whether by photovoltaics,
45 concentrating solar thermal devices, or any other various experimental solar technologies.

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Section 3: Amendment of Article IV.

Article IV: General Provisions is hereby amended to add the following section as follows:

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Section 4.31 Utility-Scale Solar Energy.

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1. Intent and Purpose: The intent and purpose of this section is to allow the use of solar energy within the Township as a clean alternative energy source and to provide associated placement, land development, installation, and construction regulations for utility-scale solar energy systems subject to reasonable conditions that will protect residents' public health, safety and welfare. These regulations establish the minimum requirements for solar energy systems, while allowing a renewable energy source in a safe, effective, and efficient manner.
 2. Authorized Use; Standards: Utility-scale solar energy systems shall be allowed as Uses Subject to Special Approval (Section 8.02) in the Agricultural (A) and Conservation/Recreation (C/R) zoning districts only, subject to compliance with all of the following specific standards:

- a. Setbacks: All components of Utility-Scale Solar Energy Systems shall comply with a one-hundred fifty (150) feet front, rear, and side setback. Solar panels shall be kept at least two-hundred fifty (250) feet from an existing residential dwelling, measured to the nearest point on the residential structure. Any additional setback requirements in this Ordinance that

46 exceed these requirements shall be adhered to, including but not limited to setbacks from
47 streams, lakes, and wetlands.

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- 49 b. Minimum Lot Size: The minimum lot size for Utility-Scale Solar Energy Systems is ten (10)
50 acres.
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- 52 c. Maximum Lot Size: The maximum lot size for Utility-Scale Solar Energy Systems is eighty (80)
53 acres.
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- 55 d. Maximum Lot Coverage: Lot coverage for Utility-Scale Solar Energy Systems shall be no
56 greater than twenty-five percent (25%) of the subject parcel. Any other regulated structures
57 on the parcel are subject to the maximum lot coverage restrictions of the underlying zoning
58 district.
 - 59
 - 60 i. The maximum lot coverage of Utility-Scale Solar Energy Systems may be increased to
61 no greater than thirty-five (35%) of the subject parcel if the site plan demonstrates
62 and contains an assurance that the property will also remain actively engaged in
63 agricultural operations that comprise at least thirty-five (35%) of the subject parcel.
 - 64
- 65 e. Wetlands, Flood Zones, and Soils: Utility-Scale Solar Energy Systems shall not be sited onto
66 Soils of Local Importance nor Prime Soils as identified on USDA Soil Survey maps. Utility-scale
67 solar systems and their associated accessory structures shall also not be sited onto officially
68 designated wetlands, hydric soils, or flood zones as identified by the National Wetland
69 Inventory conducted by the United States Fish and Wildlife Service and the United States
70 Department of Agriculture, Natural Resource Conservation Service.
- 71
- 72 f. Height Restrictions: All photovoltaic solar panels and support structures located in Utility-
73 Scale Solar Energy Systems shall be restricted to a maximum height of sixteen (16) feet when
74 orientated at maximum tilt.
- 75
- 76 g. Noise: No Utility-Scale Solar Energy System shall generate noise or sound that annoys,
77 disturbs, injures or endangers the comfort, repose, health, peace or safety of any reasonable
78 person of normal sensitivities.
- 79
- 80 h. Glare: Utility-Scale Solar Energy Systems shall be located or placed so that concentrated solar
81 glare shall not be directed toward or onto nearby properties or rights-of-way at any time of
82 the day. Support structures shall be of a single, non-reflective matte finish that is consistent
83 throughout the installation.
- 84
- 85 i. Safety/Access: A chain-link, welded wire, or similar design security fence of black metal with
86 a height of six (6) feet, and properly electrically grounded shall be placed around the
87 perimeter of the Utility-Scale Solar Energy System and electrical equipment and which shall
88 be kept locked. Knox boxes and keys shall be provided at locked entrances for security
89 personnel access. Security fences shall be maintained and repaired as needed and shall
90 adhere to Section 4.13 Fences, Wall and Hedges, and shall not utilize barbed or razor wire.
- 91

92 j. Landscaping: To address land management, soil conservation and regeneration practices on
93 the site so that it can be returned to agricultural or conservation/recreation use at the end of
94 the Utility-Scale Solar Energy System use period; and to screen the Utility-Scale Solar Energy
95 System from views from public and private roads and from adjacent properties the special
96 use permit application for a Utility-Scale Solar Energy System shall include a proposed
97 landscape plan that is specific to the local area and utilizes native species based on guidance
98 and consultation provide by the USDA’s National Resources Conservation Service, Antrim Soil
99 Conservation District, MSU Extension Service, or some other entity approved by the Planning
100 Commission. This plan will be reviewed through the special use permit approval process to
101 assure that the proposed facility is appropriately landscaped in relation to adjacent land uses
102 and road rights-of-way. A landscape plan shall meet the following standards:
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104 i. Plans: A plan view drawing illustrating the location, layout, and spacing of solar
105 panels, and all equipment related to the utility-scale solar energy system, the
106 identification and location of vegetation, driveways, public roads and right of ways,
107 and lines or notes showing site topography at no more than five (5) foot contour
108 intervals of the subject property and adjacent properties within 500 feet-
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110 ii. Land Management: Landscape Plans shall employ one or more of the following land
111 management and conservation practices throughout the coverage area of the project
112 site.

- 113 • Conservation Cover: Solar sites that focus on restoring native plants, grasses, and
114 prairie with the aim of protecting specific species (e.g., bird habitat) or providing
115 specific ecosystem services (e.g., carbon sequestration, soil health).
- 116 • Forage: Solar sites that incorporate rotational livestock grazing and forage
117 production as part of an overall vegetative maintenance plan.
- 118 • Agrivoltaics: Solar sites that combine raising crops for food, fiber, or fuel, and
119 generating electricity within the project area to maximize land use.
- 120 • Pollinator Habitat: Solar sites designed to meet a score of 76 or more on the
121 Michigan Pollinator Habitat Planning Scorecard for Solar Sites.
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123 iii. Species: A list of species of all vegetative plantings within and surrounding portions
124 of the property containing solar panels. This list may be attached as an addendum on
125 a separate document.
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127 iv. Buffer: A twenty-five (25) foot wide landscape buffer shall consist of two (2) staggered
128 rows of evergreen trees that at planting shall be a minimum of four (4) feet in height.
129 If a utility-scale solar energy system is adjacent to a residential dwelling or district,
130 then the minimum height shall be eight (8) feet at the time of planting. The evergreen
131 trees shall be spaced no more than fifteen (15) feet apart on center, measured from
132 the central trunk of one tree to the central trunk of the next tree. The buffer shall also
133 consist of native grasses, wildflower, or plants which will provide wildlife and
134 pollinator habitat, soil erosion protection, and/or aid in strengthening the soil
135 structure. The buffer shall be required when any of the following conditions exist:
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1. Along the property line adjacent to all residential zoning district or residential occupied properties.
 2. If solar panels are located within two hundred (200) feet of a public road rights-of-way.
 3. Along the property line for the portion of the subject parcel within a two hundred (200) foot radius of a residential dwelling in a non-residential zoning district.
- v. Credit for Existing Conditions: Existing topographical features and existing wooded areas may be accepted in lieu of or in combination with the above by approval of the Planning Commission.
 - vi. Planting Timeline: The required trees shall be planted according to a schedule proposed by the applicant, submitted with the application, and approved by the Planning Commission-
 - vii. Performance Guarantee for Plantings: To ensure faithful completion of plantings indicated with the site plan, a performance guarantee as outlined in Section 9.04 of the Zoning Ordinance, shall be provided payable to Banks Township in the amount equal to one and one-half (1.5) times the cost of the required plantings as estimated by a professional landscaper and approved by the Planning Commission.
 - viii. Maintenance: The applicant shall assure that the required plantings shall be continuously maintained in a healthy condition, and that dead evergreen foliage shall be replaced.
- k. Local, State, and Federal Permits: Utility-Scale Solar Energy Systems shall be required to obtain all necessary permits and licensing from Antrim County, State of Michigan, and the United States Federal Government as applicable prior to construction and shall maintain any necessary approvals as required by the respective jurisdictions or agencies.
 - l. Electrical Interconnections: All electrical interconnections or distribution lines shall comply with all applicable codes and standard commercial large-scale utility requirements. Use of above ground transmission lines shall be prohibited within the site.
 - m. Proximity to Substations: The Solar panels of a utility-scale solar energy system facility shall be located within two (2) miles of an electric substation as defined by the United States Department of Labor’s Occupational Safety and Health Organization.
 - n. Proximity to waterfront: Utility-scale solar energy systems shall be entirely located at least one-fourth (1/4) mile, one thousand three hundred twenty (1,320) feet from any Great Lake or inland lake as defined in Act 451 of 1994, Natural Resources and Environmental Protection Act.

- 183 o. Land Clearing: Land disturbance or clearing shall be limited to the extent of an approved site
184 plan by the Planning Commission. Topsoil distributed during site preparation (grading) on the
185 property shall be retained on site. Sand and gravel excavation is subject to Section 8.03,
186 subsection 12: Sand and Gravel Extraction.
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- 188 p. Application Requirements: In addition to the site plan review criteria in Article VII and the use
189 subject to special approval criteria in Article VIII, the applicant shall address and comply with
190 all of the following topics in the application for a utility-scale solar energy system:
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- 192 i. Project Description and Rationale: Identify the type, size, rated power output,
193 performance, safety and noise characteristics of the system including the
194 transmission line/grid connection for the project. Identify the project construction
195 timeframe, project life, development phases (and potential future expansions) and
196 likely markets for the generated energy.
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- 198 ii. Environmental Analysis: Identify impacts on surface and ground water quality and any
199 impacts to established natural or constructed drainage features in the area. Applicant
200 shall provide plans for remediation in the instance of negative environmental impacts
201 on surface and ground water quality.
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- 203 iii. Lighting: No lights other than required and necessary safety lights and equipment
204 lights are permitted. No light may adversely affect adjacent parcels. All lighting must
205 be shielded from adjoining parcels. Light poles are restricted to a maximum height of
206 eighteen (18) feet.
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- 208 iv. Safety Planning: An application for a Utility-Scale Solar Energy System shall be
209 accompanied by a safety plan. Such plan shall address and comply with all of the
210 following at a minimum:
211 1. A statement certifying that the electrical wiring between panels, and other
212 components, and the utility right-of-way does not pose a fire hazard.
213 2. The landscape plan accompanying the application shall be designed to avoid
214 spread of fire from any source on the panels or equipment; such preventative
215 measures may address the types and locations of vegetation below the solar
216 energy system and on the site.
217 3. A listing of any hazardous materials that may be used on site and applicable
218 material safety data sheets shall be provided.
219 4. A statement certifying that the system has been designed to meet National
220 Electrical Code requirements.
221 5. A statement of assurance that the panels and equipment shall be routinely
222 inspected to ensure that they shall remain in safe working order.
223 6. Emergency and normal shutdown procedures.
224 7. Identification of potential hazards to adjacent properties, public rights-of-
225 way, and to the general public.
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- 227 v. Telecommunications Interference. All Utility-Scale Solar Energy Systems shall be
228 designed and constructed so as not to cause electromagnetic telecommunications

229 interference. The applicant shall make assurance that if it is determined that the
230 utility scale solar energy systems is causing electromagnetic interference, the
231 applicant shall take the necessary corrective action to eliminate this interference.
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- 233 vi. Battery Storage:-On-site storage of batteries is prohibited.
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- 235 vii. Non-functional systems: If a Utility-Scale Solar Energy System is nonfunctional or
236 inoperative for a continuous period of one year, the system shall be deemed to be
237 abandoned. The owner/operator shall remove the abandoned system at their
238 expense. Removal of the system includes the entire structure, collector panels and
239 related equipment from the property. Should the owner/operator fail to remove the
240 system, the utility scale solar energy system will be considered a public nuisance and
241 will be subject to abatement as such.
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- 243 viii. Life of Project and Final Reclamation: Describe the decommissioning and final
244 reclamation plan after the anticipated useful life of abandonment and/or termination
245 of the project. This includes supplying evidence of an agreement with the underlying
246 property owner that ensures proper removal of all equipment and restoration of the
247 site to its original use within six (6) months of decommissioning or abandonment of
248 the project. To ensure proper removal of the project upon
249 abandonment/termination, a bond, letter of credit or cash surety shall be:
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- 251 1. In an amount approved by the Planning Commission to be no less than the
252 estimated cost of removal and may include a provision for inflationary cost
253 adjustments.
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 - 255 2. Based on an estimate prepared by the engineer for the applicant, subject to
256 approval of the Planning Commission.
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 - 258 3. Provided to the Township Zoning Administrator prior to the issuance of a
259 zoning permit.
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 - 261 4. Used in the event the owner of the project or the underlying property owner
262 fails to remove or repair any defective, abandoned or terminated project. The
263 Township, in addition to any other remedy under this Ordinance, may pursue
264 legal action to abate the violation by seeking to remove the project and
265 recover any and all costs, including attorney fees.
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 - 267 5. In the event of a transfer or sale of the utility-scale solar system, the Township
268 shall be notified and the Special Use permit may be amended by the Planning
269 Commission.
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- 271 a. Change in ownership alone shall be considered a minor amendment
272 to the Special Use and may be approved without a public hearing.
 - 273 b. Any proposed changes to the operating procedure or approved site
274 plan shall be amended and resubmitted for Township Planning

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Commission review according to the procedures for all utility-scale solar systems as outlined herein, including a public hearing.

- c. Upon transfer or sale, the bond, letter of credit, or cash surety shall be maintained at all times, the estimated costs of decommissioning shall be resubmitted, and the security bond adjusted to account for the new estimate.

Section 4. Severability.

If any section, provision or clause of this Ordinance or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect any remaining portions or application of this Ordinance, which can be given effect without the invalid portion or application.

Section 5. Effective Date.

This Ordinance shall become effective eight (8) days after being published in a newspaper of general circulation within the Township unless a later date is specified.

Township of Banks

By: _____
Alex Busman, Banks Twp Supervisor

By: _____
Donna L. Heeres, Clerk

Adoption date: XXX, 2023
Effective date: XXX, 2023