Heartwood Solar Project

Special Land Use Permit Application

Prepared for:

Fayette Township

Prepared by:

Heartwood Solar, LLC

Submittal Date:

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APPENDICES

I. PROJECT INTRODUCTION

On behalf of Heartwood Solar, LLC (Heartwood, or the Applicant), Atwell, LLC (Atwell) is submitting this application for a Special Land Use and Final Site Plan Review for the Heartwood Solar Project (the Project) within Fayette, Scipio, and Allen Townships, Hillsdale County, Michigan. The Project is being developed by Ranger Power, LLC (Ranger Power, or Ranger) west of the City of Jonesville. A checklist summarizing all requirements for the Special Land Use Permit and Final Site Plan and their location within the application or Final Site Plan Package is included as **Appendix A**. In addition, the Fayette Township Application for Special Land Use Permit form is included as **Appendix C**.

1) APPLICANT INFORMATION

Ranger Power is a utility-scale solar development company headquartered in Chicago, Illinois, focused on bringing well-sited, community-supported solar energy to states in the Midwest. Ranger Power has a development portfolio of approximately 6 gigawatts (GW) of active projects ranging in nameplate capacity from 20 megawatts (MW) to 400 MW.

Since 2017, Ranger has permitted more than 2,000 MW and executed over 2,000 MW of utility-scale Power Purchase and Build-Own-Transfer agreements with leading power providers throughout the region. This represents some of the largest volumes of solar development in the Midwest.

960 MW of solar projects developed by Ranger have moved into construction, 437 MW of which are now commercially operating – many of these projects represent the largest solar projects operating in their respective states. By the end of 2023, Ranger anticipates that almost a gigawatt of projects developed by Ranger Power will be in commercial operation—delivering on our sustained value and trust to our partners.

Some examples of Ranger's leadership in the market include the recently completed construction on all three phases of the 239 MW Assembly solar project in Shiawassee County, Michigan, which is the largest operational solar project in the State. The Ranger-developed 149 MW River Fork project, located in Calhoun County, Michigan, started construction in 2021. Dressor Plains, Prairie State, and Big River are all Ranger-developed projects in Illinois, collectively 347 MW. Prairie State and Dressor Plains became operational in 2021 and are the largest operating solar projects in the state. Big River is expected to be operational by the end of 2022.

Ranger is led by one of the most experienced teams in the renewable energy space. Their time-tested approach to development, which separates Ranger from the competition, involves working closely with landowners and communities to gain their support when bringing new investment and clean energy to the region.

Ranger Power is an industry leader because of the commitment to work closely with communities to ensure projects are a win-win. Ranger Power's project represent a significant investment and a new clean energy resource that benefits local residents, business owners, and stakeholders though bringing new investment and tax base, employment opportunities, and educational opportunities.

2) PROJECT SUMMARY

The Project will include up to 150 MW of photovoltaic solar panels that will be sited within a fenced area of up to approximately 989 acres within Fayette Township, as well as additional area within Allen and Scipio Townships, in Hillsdale County, Michigan (the Project Area). Land use within the Project Area is primarily agriculture and undeveloped woodlots. The Project area was selected based on land use and proximity to existing electrical grid infrastructure.

The Applicant has acquired the rights to develop, construct, and operate an up to 150-MW alternating current (AC) solar project on 35 parcels of land owned by 11 private landowners. These land rights are granted by easement agreements or by purchase option agreement. A list of participating parcels is included in **Appendix D**.

The Project will consist of solar panels arranged photovoltaic (PV) arrays. Associated facilities include the Project substation and operations and maintenance (O&M) facility, underground electrical cables to collect the generated power and transmit it to the Project substation, and gravel or compacted soil access roads to each PV array. The Project substation and O&M facility are proposed to be located within the central portion of the Project Area. The proposed locations of the solar arrays, substation, collection lines, access roads, and other Project facilities are shown in the Project Final Site Plan Package in **Appendix B**. Once permitted, the perimeter fence location will not be increased in area however fence location may decrease in area, resulting in the facilities within the permitted fenced area to be refined.

The Project is estimated to supply clean, renewable energy for approximately 75,000 homes[1]. In addition, in the first year of operation alone, Heartwood Solar anticipates generating over $70,000 in tax revenue for the local library, $975,000 for Jonesville Community Schools and Hillsdale Community Schools including payments towards school debt, and over $184,000 for health and senior services in Hillsdale County.

As demonstrated throughout this application narrative, Ranger Power has been very diligent in designing and siting a facility that meets or exceeds the requirements of the Jonesville-Fayette Zoning Ordinance and Fayette Township Solar Energy Systems Ordinance. As sited, the Project optimizes efficient use of land to generate solar power, while minimizing impacts on natural resources and existing land uses. Additionally, as designed, the Project will attempt to avoid impacts to wetlands and floodplains and will implement a 25-foot buffer surrounding these sensitive resources, to the extent practicable. In addition, the Project will utilize setbacks that are beyond what is required by the Jonesville-Fayette Zoning Ordinance and will offer to install landscape screening in areas adjacent to non-participating residential parcels. Furthermore, in an effort towards transparency and local engagement, the Project has coordinated with stakeholders and township officials throughout the design and siting of the Project and will continue to do so through Project permitting, construction, and operation. These stakeholders and officials include but aren't limited to the Fayette Township Planning Commission, Fayette Township Board, Hillsdale County Farm Bureau, Hillsdale County Economic Development Partnership, Hillsdale County Commissioners, Hillsdale County Drain Commissioner, Jonesville City Fire Chief, Jonesville City Manager, Jonesville Director of Public Safety, Jonesville City Library, Jonesville Community Schools Superintendent, Michigan Works Southeast Representatives, as well as local business owners from the Jonesville City Rotary and Hillsdale County Rotary. The Project is working with the Hillsdale County Conservation District with the goal of procuring a pollinator-friendly seed mix from a local vendor and will implement a vegetation management plan.

[1] Consumers Energy. 2022. News Release: Consumers Energy Building a Brighter Energy Future with Agreements to Purchase Solar Energy in Genesee, Hillsdale Counties. May 18, 2022. https://www.consumersenergy.com/news-releases/news-release-details/2022/05/18/14/35/building-a-energy-future-with-agreements-to-purchase-solar-energy-in-%20genesee-hillsdale-counties

The Project has received wide-ranging support, including from participating and adjacent property owners, local economic organizations, included in **Appendix L**.

The Applicant has executed a power purchase agreement (PPA) with Consumers Energy for the purchase of the power generated by Project. Construction is expected to begin in 2023, with commercial operation anticipated in 2024. Exact construction and operation dates are dependent on receipt of necessary permits and approvals.

Ranger Power is fortunate to present a project that community members, local stakeholders, and job seekers alike can be proud of.

II. SPECIAL LAND USE PERMIT REQUIREMENTS

In accordance with Chapter 14 of the Jonesville-Fayette Zoning Ordinance, Ranger Power has provided the Zoning Administrator with this application package, which meets the data required for a Special Land Use Permit (SLUP) application.

1) SUBMITTAL REQUIREMENTS

In accordance with Section 14.02 of the Jonesville-Fayette Zoning Ordinance, this application narrative will be submitted along with twelve copies of the final site plan, a check for the SLUP fee and escrow, the Fayette Township Special Land Use Permit Application (**Appendix C**) are also included with this application package. In addition, although not required, an Impact Assessment has also been voluntarily provided as part of this application package, which is included as **Appendix E**. Ranger Power understands that the application package submitted to the Zoning Administrator will not be considered by the Planning Commission for at least 30 days following submittal. The Applicant respectfully requests to have the Final Site Plan Review and SLUP application considered at a single special meeting of the Planning Commission. Refer to the Special Land Use / Final Site Plan Review Checklist in **Appendix A**, for a summary of SLUP and Final Site Plan Requirements and where they can be found in this SLUP application package and Final Site Plan package.

2) SPECIAL LAND USE PERMIT APPLICANT IDENTIFICATION

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3) PERMIT STANDARDS

GENERAL STANDARDS FOR APPROVAL FOR SPECIAL LAND USE PERMIT

In accordance with Section 14.04 of the Jonesville-Fayette Township Zoning Ordinance, the Planning Commission shall review each SLUP request, and approve said request only upon finding that all of the below standards for approval are complied with:

A. The use is designed and constructed, and will be operated and maintained, so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity, will be compatible with adjacent uses of land, and will not change the essential character of the area in which it is proposed.

The Project is designed and will be constructed, operated, and maintained to be harmonious with and in appearance with the rural character of the surrounding area. The Project will maintain the area's low density and will not increase area road traffic once constructed. With the panels positioned to catch the morning or evening sun, the height of the panels will be similar to that of full-grown corn. Perennial vegetative groundcover will be planted and maintained throughout the Project area similar to cover crops in typically agricultural operations or land enrolled in the U.S. Department of Agriculture (USDA) Farm Service Agency Conservation Reserve Program. The Project is sited exclusively on property zoned as Agricultural (AG) and Single-Family Residential (R-1) land, the majority of which is currently used for agriculture. The Project will preserve the agricultural character and visual appeal of the Project from the adjacent properties through design measures such as the perimeter fencing that will be constructed with wooden posts and woven fiber, as

opposed to standard chain-link fencing, landscape buffering along adjacent, non-participating residential parcels, if requested by the parcel owner, and planting a perennial vegetative ground cover throughout the site.

The Applicant has voluntarily committed to seeding the entirety of the Project with a mix of pollinator-friendly and other vegetation determined to be appropriate for the region, unless otherwise selected by the landowner, that will be compatible with the surrounding landscape. Refer to the vegetation management plan including with the Final Site Plan package in **Appendix B**. Pollinator-friendly vegetation planted within the project area will decrease erosion, increase stormwater control, increase biodiversity within the project area, and maintain the character of the surrounding area. Overall, the Project is designed to be harmonious and compatible with the general agricultural vicinity and, at the end of the Project's operational life, it will be decommissioned and can be returned to agricultural use. Refer to the Project Decommissioning Plan included in **Appendix G**.

B. The use is, or will be as a result of the Special Land Use Permit, served adequately by public services and facilities, including but not limited to streets, police and fire protection, drainage structures, refuse disposal, and schools. Adequate water and sewer facilities must be available.

The Project will be served adequately by the existing streets and highways for the construction of the Project. Transportation and installation of the components will not require special accommodations of the existing infrastructure. Workforce and component delivery routes will follow the routes designated in the Project Haul Route Plan, which is included with the Final Site Plan package (**Appendix B**), and the Project will work with the Hillsdale County Road Commission to document road conditions before and after construction to ensure no damage to public roadways has occurred as a result of the Project. In addition, the Project will comply with all applicable regulations of the Hillsdale County Drain Commission. Atwell received confirmation from the Hillsdale County Drain Commissioner on April 4, 2022, stating that the County does not currently have a stormwater management plan in place. On April 5, 2022, Atwell and the Applicant met with the Hillsdale County Drain Commissioner and confirmed that a stormwater management plan would not be required due to a lack of expected impacts as a result of the Project.

Atwell and the Applicant also met with the Jonesville City Fire Department on April 5, 2022, to discuss emergency response plans. The Jonesville Fire Department did not recommend any modifications to the Project design. The Applicant will notify the Jonesville Fire Department prior to construction so they can visit during construction to obtain an on-the-ground understanding of the Project layout and emergency access points. The Applicant has also reached out to the Jonesville Director of Public Safety to set up a meeting to discuss the Project. In addition, a perimeter fence will be installed surrounding the Project, which will limit the potential safety or security issues. In addition, not only will the Project avoid any negative impacts to local schools, but taxes generated by the Project are anticipated to provide approximately $975,000 for Jonesville Community Schools and Hillsdale Community Schools, including payments towards school debt. Thus, the Project is not expected to require any additional local police or fire department resources and would benefit local community school systems.

While in operation, the Project will require a staff of 2-4 personnel. The Project will coordinate with local utilities to arrange suitable electric, water, trash disposal, and septic services for the facility. The Project will obtain all building, electrical, plumbing, and other permits required by the Hillsdale County Building Inspection and Environmental Services Department prior to construction of the O&M facility. As such, the Project and its use are expected to be served adequately by existing public services and facilities.

C. The use does not involve activities, processes, materials and equipment or conditions of operation that will be detrimental to any persons, property or the general welfare by reason of traffic, noise, smoke, fumes, glare or odors.

The Project will not generate traffic, noise, smoke, fumes, glare or odors detrimental to health, safety, or general welfare during operations. The Project is voluntarily implementing setbacks from non-participating properties, public roadways, and residences that exceed the requirements set forth in the Jonesville-Fayette Zoning Ordinance. Construction of the Project will produce a minor increase in local traffic. However, this small increase will be temporary, and measures will be put in place to ensure traffic safety. During operation, vehicular traffic associated with the Project will be minimal.

Although Fayette Township has not enacted specific sound standards for solar energy systems, the Project has been designed to minimize audible sound at neighboring residences and buildings. According to the Project's Sound Modeling Study (**Appendix F**), under highest decibel circumstances, sound modeled at the receptor locations analyzed was predicted as ranging from 12 A-weighted decibels (dBA) to 48 dBA. For context, a soft whisper heard from three feet away may register just over 40 dBA, and the sound of a dishwasher in the next room may register at 50 dBA. Thus, according to the Project's Sound Modeling Study, sound levels at neighboring residences are not anticipated to cause a nuisance, even under the highest decibel scenario.

Operation of a PV solar energy system does not generate emissions, smoke, fumes, or odors. Solar panels are constructed of layered glass, aluminum, and crystalline silicon. Crystalline silicon is a common mineral found naturally within the earth's crust, as well as in sand, stone, concrete, and mortar. As such, the Project will not disturb or be hazardous to any surrounding uses permitted within the adjacent zoning districts or produce any hazardous by-products, as the panels are chemically inert. Furthermore, at the end of its operational life, the Project will be removed in accordance with the Decommissioning Plan provided in **Appendix G**, and land may be returned to its current use.

The Project will not result in glint/glare that would impact neighboring properties or vehicles on the road. The solar panels that will be used for the Project have been designed with an anti-glare coating. A glare hazard analysis did not predict glare to be reflected to any residences or businesses. Glare was modeled along the road at the Deal Parkway and Industrial Parkway. Glare is not likely to occur in these areas, as existing structures and woodlots are located between the proposed arrays and these roadways. Refer to the Project Glare Hazard Analysis in **Appendix H** for additional detail and photographs of these areas.

D. The use will be compatible with the natural environment and will be designed to encourage conservation of natural resources and energy.

The Michigan Department of Agriculture & Rural Development ("MDARD") now recognizes the need to install solar arrays on agricultural land, including land enrolled in PA116. Agricultural land is the most compatible land for solar farms as the land generally consists of large acreage and solar uses are low intensity. The Project will serve to supplement farming incomes and allow for nutrient and land recharge while supporting native vegetation and pollinator habitat species. Giving soil rest can help maintain soil quality and contribute to biodiversity of agricultural land to increase nutrient levels and enable the land to revert back to agricultural uses at the end of the operational life for solar installations. The solar arrays will be mounted on piles, minimizing disturbance to the land. Grasses and other vegetation will be allowed to grow underneath and between panels and will be maintained against overgrowth in accordance with the Project Vegetation Management Plan (included in **Appendix B**). In addition, the Applicant is coordinating with the Hillsdale County

Conservation District to procure a mix of pollinator-friendly vegetation that will be planted throughout the Project. Presence of pollinator-friendly species has been shown to increase production of pollinator-dependent crops, such as soybeans[2]. In addition, pollinator-friendly species tend to have deeper root systems, which filter and store more water, thereby decreasing runoff and increasing groundwater storage[3], and these species tend to require less chemical fertilizer and herbicide, therefore also decreasing pollutants entering surface waters and groundwater[4]. Additionally, soil removal and topographic modifications will be completed in accordance with site-specific construction best management practices (BMPs) and the stabilization of the site will be managed to prevent soil erosion.

E. The site plan proposed for such use demonstrates compliance with the specific design standards for the Special Land Use as contained in Section 14.09.

Section 14.09 of the Fayette Township Zoning Ordinance does not set forth solar-specific standards for lot size, height, or setbacks. Instead, the Project has been designed to meet or exceed standards typically seen across Michigan. Panels will be setback at least 150 feet from residences, 50 feet from public road rights-of-way (ROWs), and 50 feet from non-participating property lines. In addition, as demonstrated below, the Project complies with all specific requirements listed in the Fayette Township Solar Energy Systems Ordinance No. 2017-1.

[2] Milfont, MO, Rocha, EEM, Lima, AON, Freitas, BM. 2013. Higher soybean production using wild honeybee and wild pollinators, a sustainable alternative to pesticides and autopollination. Environmental Chemistry Letters. 11.4: 335-341

[3] Walston, LJ, Li, Y, Hartmann, HM, Macknick, J, Hanson, A, Nootenboom, C, Lonsdorf, E, Hellmann, J. 2021. Modeling the ecosystem services of native vegetation management practices at solar energy facilities in the Midwestern United States. Ecosystem Services. 47. 101227.

[4] MPCA [Minnesota Pollution Control Agency]. 2022. Minnesota Stormwater Manual: Top 10 reasons to plant pollinator friendly vegetation at your solar site. https://stormwater.pca.state.mn.us/index.php/Top_10_reasons_to_plant_pollinator_friendly_vegetation_at_your_solar_site

III. SOLAR ENERGY SYSTEMS ORDINANCE NO. 2017-1

Pursuant to the Fayette Township Solar Energy Systems Ordinance (No. 2017-1), the Project is defined as a solar farm. In accordance with this ordinance and the Jonesville-Fayette Zoning Ordinance, the Applicant has provided the Zoning Administrator with this application package for a SLUP. Refer to the Special Land Use / Final Site Plan Review Checklist in **Appendix A**, for a summary of SLUP and Final Site Plan Requirements and where they can be found in this SLUP application package and Final Site Plan package.

GENERAL REQUIREMENTS

Ranger Power understands that all solar energy systems, whether ground mounted or roof mounted, are subject to the following general requirements:

1. **A solar energy system must conform to all County, State, and Federal regulations and safety requirements as well as applicable industry standards.**

   Pursuant to the Fayette Township Solar Energy Systems Ordinance No. 2017-1, Ranger Power will comply with all applicable federal, state, and county laws and regulations and will obtain required federal, state, and local approvals, licenses, permits, or variances for the proposed project prior to the start date of construction for which such approvals or permits are necessary or required. The Project complies with Michigan Public Service Commission and Federal Energy Regulatory Commission interconnection standards. All components of the solar facility will comply with the National Electric Safety Code and Institute of Electrical and Electronics Engineers standards.

2. **Solar panels shall be placed such that concentrated solar glare shall not be directed onto nearby properties or roadways.**

   The Project has been designed to not direct concentrated solar glare toward or onto nearby properties or roadways at any time of the day. Use of a single-axis tracking system greatly reduces the potential for any focused glare due to the constant motion throughout the day. The solar panels are manufactured with anti-reflective materials that maximize light absorption and minimize glare. The glass of the arrays selected by Ranger Power for use in the Project will have an internal coating specifically intended to minimize any concentrated glare. A ForgeSolar glare analysis has been conducted for the Project (**Appendix H**). The Glare Hazard Analysis did not predict reflection of glare to any residences or business analyzed.

   Potential glare was modeled along the southern extent of Deal Parkway and the western extent of Industrial Parkway, however actual glare reflected to these roadways is not expected to occur. The glare hazard analysis software is not capable of taking existing or proposed visual obstructions into consideration when modeling glare and there are existing structures and woodlots between the modeled arrays and these areas. Thus, it is unlikely that reflected glare would be visible from these roadways when the Project is constructed. Refer to **Appendix H** for additional detail including photographs of the view from these roadways.

3. **System must meet or exceed national (NEC) or local building code electrical standards**

   The Project will be built and operated to meet or exceed the standards set forth in the National Electrical Code (NEC) as well as electrical standards required by the Hillsdale County Building Inspection and Environmental Services Department. The Project complies with the Michigan Public Service Commission and Federal Energy Regulatory Commission interconnection standards and all Project components will comply with the National Electrical Safety Code and Institute of Electrical and Electronics Engineers standards.

SOLAR FARMS

Ranger Power understands that solar farms shall only be allowed in the (AG) Agricultural District, the (R-1) Single Family Residential, or the (L1) Light Industrial District as special uses approved by the Planning Commission. Ranger Power understands that solar farms shall be subject to the following requirements:

1. **The owner of a solar farm shall provide the Planning Commission with an operations agreement, which shall set forth the operations parameters, the name and contact information of the certified operator, inspection protocol, emergency procedures and general safety documentation.**

   Pursuant to the Fayette Township Solar Energy Systems Ordinance No. 2017-1, the Project will provide an operations and maintenance plan to Fayette Township prior to commercial operation of the Project. This agreement will include a description of the operations parameters, inspection protocols, emergency procedures and contact information, and the Project's general safety documentation. The Project shall be kept and maintained in good repair and condition at all times; neat, clean, and free or refuse, waste or unsightly, hazardous, or unsanitary conditions. Maintenance and repair activities will include periodic inspections and performance assessments of the electrical and mechanical systems onsite. Activities include coatings touchup of metal enclosures and infrastructure, replacement of damaged PV modules, and vegetation management on an as-needed basis. In addition, the Applicant met with the Jonesville Fire Department and has reached out to meet with the Jonesville Director of Public Safety to discuss Project operation.

2. **Prior to the installation, the property owner shall submit a descriptive site plan to the Planning Commission which includes where and how the solar farm will connect to the power grid. (<u>This requirement is in addition to all other applicable zoning requirements</u>).**

   As described in the Project Interconnection Information (**Appendix K**), the Project is proposed to interconnect to the Midcontinent Independent System Operator (MISO) transmission system at the Michigan Electric Transmission Company (METC)-owned Coldwater to Moore Road 138-kilovolt (kV) transmission line located near the center of the Project Area (within parcel 30 06 031 400 003 31 5 3). The Project has applied for the Network Resource Interconnection Service for the full 150-MW output and preliminary load flow work shows the location can accommodate 150-MW of generation with network upgrades. Heartwood Solar has established the queue position J1658 in the MISO Interconnection Queue and is in the DPP-2020-East-ITC Cluster. A General Interconnection Agreement (GIA) is expected for the Project in January 2023.

3. **No solar farms shall be installed until evidence has been given to the Planning Commission that the electric utility company has agreed to allow the property owner to install an interconnected customer-owned generator to the grid.**

   Power generated by the Project will be sold to Consumers Energy. The Applicant has signed a power purchase agreement for the entirety of the 150-MW capacity to be sold to Consumers Energy, and Consumers Energy submitted the PPA for approval to the Michigan Public Service Commission on May 13, 2022. Documentation of this agreement, as well as information on the Project's MISO queue position have been provided in **Appendix K**.

4. **To ensure proper removal of a solar farm energy system when it is abandoned, any application for approval of the new solar farm energy system shall include a description of the financial security guaranteeing removal of the system which must be posted at the time of receiving a construction permit for the facility. The security shall be: 1) a cash bond; 2) an irrevocable bank letter of credit; or 3) a performance bond in a form approved by the Township. The amount of such guarantee shall be no less than estimated cost of removal and may include a provision for**

inflationary cost adjustments. The estimate shall be prepared by the engineer for the developer and shall be subject to approval by the Township.

Heartwood Solar will propose a financial guarantee, which, according to the Project Decommissioning Plan (**Appendix G**), will cover the expected cost to Fayette Township of removal of the system, including an inflationary cost adjustment. Furthermore, although the total salvage value for the Project is estimated to be greater than the cost of decommissioning, the salvage value was reduced by two thirds to account for uncertainty around what the actual value will be at the time of decommissioning, thereby increasing the value of the guarantee that will be furnished by the Applicant. This guarantee will be posted at the time of receiving a construction permit for the facility and shall be subject to approval by the Township.

5. **If the property owner fails to remove or repair the defective or abandoned system, the township may pursue legal action to have the system removed and assess its cost of the tax roll. The applicant shall be responsible for the payment of any costs and attorney's fees incurred by the Township in securing removal of the structure.**

Ranger Power understands this requirement and will comply. At the end of the Project's operational life, the Project will be decommissioned and removed in accordance with the Project Decommissioning Plan (**Appendix G**). As specified in the Decommissioning Plan, Ranger Power will work with Fayette Township to establish a cash bond, irrevocable bank letter of credit, or performance bond, which will cover the expected cost to Fayette Township for removal of the system, including an inflationary cost adjustment. This guarantee will be approved by Fayette Township and will be in place prior to commencement of Project construction.

Based on similar projects, models, and technology, the Project Decommissioning Plan analyzed the costs and salvage values for decommissioning the Project after 25 years of operation. The estimated cost for decommissioning the Project is approximately $8,265,000. The estimated resale and salvage value for Project components is approximately $16,212,000. However, due to uncertainty around what the actual salvage value of components will be at the time of decommissioning, this value was reduced by two thirds, resulting in an adjusted value of approximately $5,404,000 and a net decommissioning obligation of approximately $2,861,000, recovered by the owner[5]. The Applicant understands that in the unlikely event that the Project is left abandoned for 12 months, the Project will be decommissioned and removed in accordance with the Decommissioning Plan (**Appendix G**), as required by the Fayette Township Solar Ordinance and as required by the landowner lease agreements.

[5] Values have been rounded to the nearest $1,000. Exact estimate values are included in the Decommissioning Plan in **Appendix G**

IV. SITE PLAN REQUIREMENTS

The Applicant has prepared a Final Site Plan (**Appendix B**) in accordance with the requirements of Section 15.03 of the Jonesville-Fayette Zoning Ordinance. Refer to the Special Land Use / Final Site Plan Review, included with **Appendix A**. The Project Final Site Plan package, which includes maps showing the physical features and land uses of the project area, both before and after construction of the proposed project, includes the following:

A. A completed application form, as provided by the Community

B. An application fee, as may be established by the Legislative Body from time to time.

C. The narrative required by Section 15.03, A, 2, c[6] for preliminary site plan submittal: A narrative (shown on the site plan or submitted separately) describing in general terms:

   1) An overall description of the proposed development.

D. Twelve (12) copies of a final site plan prepared and sealed by a professional competent in such matters. The final site plan shall include the following information, unless deemed unnecessary by the Zoning Administrator:

   1) The date, north arrow, and scale. The scale shall not be less than 1" = 30' for property under five (5) acres and at least 1" = 100' for those five (5) acres or more; unless another scale is approved for submission by the Zoning Administrator[7].

   2) The name and firm address, and the name of the professional individual responsible for the preparation of the site plan or as directed by the Zoning Administrator.

   3) The name and address of the property owner or petitioner.

   4) A location sketch.

   5) Legal description of the subject property (may be submitted separately if allowed by the Zoning Administrator).

   6) The size (in acres) of the subject property and approximate number of acres allocated to each proposed use and gross area in building, structures, parking, public and/or private streets and drives, and open space.

   7) Property lines and require setbacks shown and dimensioned.

   8) The location of all existing structures, driveways, and parking areas within one hundred (100) feet of the subject property's boundary.

   9) The location and dimensions of all existing and proposed structures on the subject property including unit dwelling densities by type, if applicable.

   10) The location of all existing and proposed drives (including dimensions and radii), acceleration/deceleration lanes, sidewalks, signs, exterior lighting, curbing, parking areas (including the dimensions of a typical parking space and the total number of parking spaces to be provided), and unloading areas.

[6] Note, Section 15.03,B of the Jonesville-Fayette Zoning Ordinance lists a requirement for: "A narrative (shown on the site plan or submitted separately) describing in general terms: an overall description of the proposed development."
[7] The Zoning Administrator has approved a scale of 1" = 200" for the Project's Final Site Plan

11) The location, pavement width and right-of-way width of all roads, streets, and access easements within one hundred (100) feet of the subject property.

12) The existing zoning and use of all properties abutting the subject property.

13) The location of all significant natural features and the location, type, and size of all proposed landscaping, and the location, height, and type of existing and proposed fences and walls. The location of all preserved landmark trees and locations of landmark tree removals and replacements, if any, shall be shown.

14) Size and location of existing and proposed public, or private community sewer and water systems, including any proposed connections thereto.

15) The location and size of all surface water drainage facilities.

16) Existing and proposed topographic contours at a minimum of two (2) foot intervals.

17) Recreation areas, common use areas, flood plain areas, and areas to be conveyed for public use and purpose.

18) Any other physical improvements.

Refer to the Special Land Use / Final Site Plan Review Checklist (**Appendix A**) for a summary of required documents and where they are located within the Project Special Land Use Permit Application and Final Site Plan Package. The above-listed requirements are included in the Final Site Plan package in **Appendix B** and the Fayette Township Special Land Use Permit Application in **Appendix C**. Note that the Zoning Administrator has approved a scale of 1 inch = 200 feet for the Final Site Plan. Final design drawings and engineering calculations have been certified by a Professional Engineer licensed in the State of Michigan.

V. STANDARDS FOR PLAN APPROVAL

Atwell prepared the Final Site Plan (**Appendix B**) in accordance with Section 15.03 of the Jonesville-Fayette Zoning Ordinance. Refer to the Special Land Use / Final Site Plan Review Checklist in **Appendix A**, for a summary of SLUP and Final Site Plan Requirements and where they can be found in this SLUP application package and Final Site Plan Package. The Final Site Plan, which includes maps showing the physical features and land uses of the Project Area, both before and after Project construction, complies with the following standards, as outlined in Section 15.05 of the Jonesville-Fayette Zoning Ordinance:

A. The uses proposed will not adversely affect the public health, safety, or welfare. Uses and structures located on the site shall take into account topography, size of the property, the uses on adjoining property, and the relationship and size of buildings to the site. The site shall be developed so as to not impede the normal and orderly development or improvement of surrounding property for uses permitted in this Ordinance.

The Project will not adversely affect the public health, safety, or welfare. The Project will be built in compliance with the National Electric Safety Code (NESC), National Electric Code, and Institute of Electrical and Electronics Engineers (IEEE) guidelines. Additionally, operation of a solar energy system does not generate harmful emissions, fumes, or smoke and solar panels are composed of non-hazardous, inert crystalline silicon that is enclosed between thick layers of glass, safely mounted on steel pilings mounted on the ground.

In addition, Atwell and the Applicant met with the Fire Chief and Assistant Fire Chief of the Jonesville City Fire Department on April 5, 2022, to discuss Project development. The Fire Department did not identify particular concerns for fire danger and will work with the Applicant to develop an emergency response plan. The Applicant will notify the Jonesville Fire Department prior to construction so that the Fire Department can visit the Project during construction to obtain a better on-the-ground understanding of the Project layout and access points. The Applicant has also reached out to the Jonesville Director of Public Safety to set up a meeting to discuss the Project. Furthermore, as required by federal law, the Project will be surrounded by a perimeter fence, which will reduce the potential for safety or security issues.

The Project has been designed to have a low profile and will not require construction of new overhead electrical transmission lines. Electrical collection lines connecting each array to the project substation will be buried underground and the Project will interconnect to an existing overhead transmission line adjacent to the proposed Project substation. The Project O&M building is anticipated to also have a low profile and will be located in the central portion of the Project Area.

Any outdoor storage or refuse areas associated will include vegetative or other visual screening between the storage area and adjacent land uses. Landscape buffering will be implemented along adjacent, non-participating residential parcels, if requested by the parcel owner. In addition, in accordance with the Project's Vegetation Management Plan, included with the Project Final Site Plan Package in **Appendix B**, the Project area will be planted with a seed mix appropriate for the region, unless otherwise specified by the landowner.

Use of the subject property as a solar energy system is compatible with surrounding uses. Uses surrounding the Project include agricultural, single-family residential, manufactured housing park, and light industrial zoning districts. The Project will not impede development of the surrounding properties, nor will it result in noise or glare impacts to the surrounding properties. Refer to the Sound Modeling Study (**Appendix F**) and Glint/Glare Study (**Appendix H**).

B. Safe, convenient, uncontested, and well-defined vehicular and pedestrian circulation shall be provided for ingress/egress points and within the site. Drives, streets, and other circulation routes

shall be designed to promote safe and efficient traffic operations within the site and at ingress/egress points.

During Project construction, workforce and component delivery routes will follow the routes designated in the Project Haul Route Plan, included with the Final Site Plan Package in **Appendix B**. During operation, the Project will not generate vehicular or pedestrian traffic. In addition, access roads have been designed to provide safe and efficient ingress and egress points for maintenance crews or emergency vehicles. Furthermore, as required by federal law, the Project will be surrounded by a perimeter fence. As such, pedestrians will not be allowed to access the Project Area.

C. **The arrangement of public or private vehicular and pedestrian connections to existing or planned streets in the area shall be planned to provide a safe and efficient circulation system for traffic.**

The Project does not include any new public roadways and solar panels will be setback from public road ROWs. As required by federal regulations, the Project will not be accessible to the public. Access roads for maintenance crews and emergency services will be designed so as to provide safe and efficient ingress and egress. Furthermore, during the construction phase, workforce and component delivery routes will follow the routes designated in the Project Haul Route Plan, included with the Final Site Plan Package in **Appendix B**.

D. **Removal or alteration of significant natural features[8] shall be restricted to those areas which are reasonably necessary to develop the site in accordance with the requirements of this Ordinance. The Planning Commission may require that landscaping, buffers, and/or greenbelts be preserved and/or provided to ensure that proposed uses will be adequately buffered from one another and from surrounding public and private property.**

The Project has been designed to prioritize the preservation of significant natural features such as steeper slopes, wetlands, surface water features, floodplains, sensitive cultural and archaeological sites, and other unique or significant natural areas, to the extent practicable. As part of the due diligence for the Project, the Applicant contracted Atwell to complete a number of environmental assessments for the Project including a biological habitat assessment and wetland delineation, cultural resource review, and landmark tree survey, and is coordinating with the U.S. Fish and Wildlife Service (USFWS) to conduct a detailed habitat assessment for threatened and endangered bat species. The results of these surveys are being used to inform Project design and reduce potential impacts to significant natural features.

Solar arrays will primarily be sited within areas currently used for agriculture and although some wooded areas will be cleared, areas identified during surveys as higher-quality woodland habitats will be avoided. In addition, the Project is attempting to site arrays so as to avoid impacts to wetlands, high-quality woodland habitat, and cultural resources. Where feasible, arrays will been set back from the southern, eastern, and western sides of existing woodlots and tree rows, thereby minimizing tree removal needed to account for shading. In addition, landscape buffering will be included along adjacent, non-participating residential parcels, if requested by the parcel owner. Furthermore, in accordance with the Vegetation Management Plan (included with **Appendix B**), a seed mix of pollinator-friendly and other regionally appropriate vegetation will be planted underneath and between panels, and around the site perimeter, unless otherwise specified by the landowner, thereby providing additional ecological benefits to pollinating insects and birds, soils, groundwater, and surface water. In addition, although not required, an Impact Assessment has been completed for the Project. The Impact Assessment found

[8] As defined in the Jonesville-Fayette Zoning Code, Significant Natural Features include any natural areas as designated by the Planning Commission, Legislative Body, or the Michigan Department of Environmental Quality or other appropriate governmental agency which exhibits unique topographic, ecologic, hydrological, or historical characteristics such as a wetland, floodplain, water features, landmark trees, or other unique natural features.

that the Project is anticipated to avoid or minimize significant impacts to natural features. Refer to **Appendix E** for additional detail.

E. Areas of natural drainage such as swales, wetlands, ponds, or swamps shall be protected and preserved insofar as practical in their natural state to provide areas for natural habitat, preserve drainage patterns and maintain the natural characteristics of the land.

The Project has been designed so as to avoid impacts to natural drainage patterns. The Applicant completed a delineation of water resources including swales, wetlands, ponds, and swamps and the results of that survey were used to inform Project design. The Project is attempting to avoid impacts to wetlands, to the extent practicable. In addition, the solar arrays will primarily be sited within agricultural areas, thereby further reducing alterations to natural areas. Furthermore, a seed mix of pollinator-friendly and other regionally appropriate vegetation will be planted throughout the Project area in accordance with the Vegetation Management Plan (included in **Appendix B**).

Where underground collection may be required to cross watercourses, collection lines will be bored underneath these features, where feasible, to avoid impacts to surface waters. The Applicant is coordinating with the Michigan Department of Environment Great Lakes and Energy (EGLE) to discuss the Project and obtain all necessary permits for crossing these waters, as well as to conduct a floodplain elevation review to confirm avoidance of impacts to state-regulated floodplains, to the extent practicable.

Atwell and the Applicant also met with the Hillsdale County Drain Commissioner on April 5, 2022, to discuss the Project and no areas of concern were identified during that meeting. Soil removal and any required topographic modifications will be conducted in accordance with site-specific and general soil and erosion control BMPs, and soils will be stabilized to prevent soil erosion and sedimentation. Refer to the Impact Assessment (**Appendix E**) for additional information on Project avoidance and minimization of impacts to wetlands, surface waters, and drainage patterns.

F. The site plan shall provide reasonable visual and sound privacy for all dwelling units located therein, and adjacent thereto. Fences, walls, barriers, and landscaping shall be used, as appropriate, to accomplish these purposes.

The Project has been designed to have a low profile and be compatible with the surrounding area. Electrical collection lines connecting each array to the project substation will be buried underground. As required by federal law, the Project will be surrounded by a perimeter fence, constructed of wooden posts and woven fibers. Furthermore, landscape buffering will be included along adjacent, non-participating residential parcels, if requested by the parcel owner, with a maximum of 20 feet from tree center between planted trees. From the date of permit issuance through one year from the start of construction, owners of adjacent, non-participating residences may contact Fayette Township and the Applicant to formally request that such landscape buffering be installed. Refer to the Project Vegetation Management Plan, included with the Final Site Plan Package in **Appendix B**.

The Project has been designed so as to minimize audible noise at adjacent residences or other buildings. The Project has been designed so that inverters and the Project substation, which are the components of the facility capable of producing sound, are centrally located and away from non-participating landowners adjacent to the Project's boundaries. As currently designed, the closest inverter to any residence is sited nearly 400 feet away. As described above and in the Project Sound Modeling Study (**Appendix F**), sound modeled at adjacent receptors ranged from 12 dBA to 48 dBA, i.e., quieter than the sound of a dishwasher heard from the next room.

G. All buildings and groups of buildings shall be arranged so as to permit reasonable necessary emergency vehicle access as requested by the Fire Department serving the Community.

The Project has been designed to be readily accessible to emergency vehicles. Atwell and the Applicant met with the Fire Chief and Assistant Fire Chief from the Jonesville City Fire Department on April 5, 2022, to discuss the Project and address any concerns related to emergency services. The Jonesville Fire Department did not recommend any changes to the Project design but will be notified prior to construction in order to visit the Project during construction to obtain a better on-the-ground understanding of the Project layout and access points. The Applicant has also reached out to the Jonesville Director of Public Safety to discuss the Project and will continue to coordinate with the appropriate public safety officials, as appropriate for the Project.

H. All streets and driveways shall be developed in accordance with the Community Subdivision Control Ordinance, the Hillsdale County Road Commission, or Michigan Department of Transportation specifications, as appropriate, unless developed as a private road in accordance with the requirements of private roads in this Ordinance. The Planning Commission may impose more stringent requirements than those for the Road Commission or Michigan Department of Transportation with respect to driveway location and spacing. In addition, sidewalks may be required if determined to be necessary or appropriate for pedestrians and non-motorized vehicles.

The Project will not require new public roadways or private streets. All driveways have been designed in accordance with the applicable Hillsdale County Road Commission, Michigan Department of Transportation, and Fayette Township standards. In addition, solar panels have been setback at least 50 feet from public road ROWs.

The Applicant understands that the Fayette Township Planning Commission may impose additional or more stringent driveway requirements than those enforced by the Road Commission or Michigan Department of Transportation. Because the Project will not be open to public pedestrian or vehicular traffic, sidewalks are not expected to be required.

I. Appropriate measures shall be taken to ensure that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system. Provisions shall be made to accommodate stormwater, prevent erosion and the formation of dust. The use of detention/retention ponds may be required. Surface water on all paved areas shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian traffic or create puddles in paved areas. Catch basins may be required to contain oil filters or traps to prevent contaminants from being discharged to the natural drainage system. Other provisions may be required to contain runoff of spillage from areas where hazardous materials are stored, or proposed to be stored.

The Project will not result in significant changes to the existing stormwater drainage patterns within the Project area. Atwell received an email from the Hillsdale County Drain Commissioner on April 4, 2022, that the County does not currently have a stormwater management plan in place. On April 5, 2022, Atwell and the Applicant met with the Hillsdale County Drain Commissioner and confirmed that a stormwater management plan would not be required due to a lack of expected impacts as a result of the Project.

During construction, the Project will implement erosion and sediment control BMPs, including dust suppression measures, to control erosion of disturbed soils and limit sediment-laden runoff being transported to neighboring properties or the public storm drainage system. A project-specific soil erosion and sedimentation control (SESC) plan approved by the Hillsdale County Building Inspection Department, would be implemented and all necessary stormwater permits would be obtained prior to commencing construction. During operation, no significant changes to existing drainage patterns are anticipated. Using EGLE's "Computing Flood Discharges for Small Ungaged Watersheds" methodology, calculations show that converting the primary existing land use (agricultural crop production) to a solar PV array with grassy ground cover does not increase stormwater runoff that would necessitate

permanent stormwater management facilities such as retention or retention basins and would instead reduce downstream runoff. No paved surfaces will be constructed for the Project, and no hazardous materials will be used during Project operation.

J. Exterior lighting shall be arranged so that it is deflected away from adjacent properties and so that it does not interfere with the vision of motorists along adjacent streets. Lighting of buildings or structures shall be minimized to reduce light pollution and preserve the rural and small town character of the community.

The Project will not require exterior lighting within the solar arrays. The Project would include one overhead, downward-facing light within the substation, and may include another downward facing light at the O&M facility for the purposes of security, maintenance, and emergency services. Substation lighting will comply with the requirements set forth in Section 2.18 of the Jonesville-Fayette Zoning Code and is not anticipated to adversely impact adjacent properties or traffic on adjacent streets nor produce significant light pollution.

K. All loading and unloading areas and outside storage areas, including areas for the storage of trash, which face or are visible from Residential Districts or public streets, shall be screened by a vertical screen consisting of structural or plant materials no less than six (6) feet in height. The finished side of any wall, fence, or other screen shall face adjacent properties.

The Project is not anticipating use of exposed storage areas, trash storage areas, or loading/unloading areas. If the Project will use storage, trash, or loading/unloading areas, landscaping, or other visual screening at least six (6) feet in height with the finished side facing adjacent properties, will be used in accordance with this requirement. In addition, a landscape buffer will be used along adjacent, non-participating residential parcels, if requested by the parcel owner, to provide further visual screening for neighboring residences. Refer to the Final Site Plan Package (**Appendix B**) for areas with proposed landscaping or other screening.

L. Entrances and exits shall be provided at appropriate locations so as to maximize the convenience and safety for persons entering or leaving the site. The number of entrances to and exits from the site shall be determined with reference to the number of dwelling units or other land uses within the site, the nature and location of the surrounding streets, the effect of traffic in the area, nearby topography, and other factors.

During operation of the Project, 2-4 permanent onsite personnel are expected to be required and the Project will not include any dwelling units or other land uses. All arrays will be accessible by maintenance crews and emergency vehicles, via gravel or compacted soil access roads. Because the Project will not generate traffic, no impacts to traffic in the surrounding areas are expected.

M. Site plans shall conform to all applicable requirements or County, State, Federal, and community statutes and ordinances. Approval may be conditioned on the applicant receiving necessary County, State, Federal, and community permits before final site plan approval or an occupancy permit is granted.

The Project will conform to all applicable county, state, federal, and community regulations and will obtain necessary county, state, federal, and community approvals, licenses, variances, and/or permits prior to commencing applicable work. Applicant has sited the Project in an environmentally responsible manner.

N. Appropriate fencing may be required by the Planning Commission around the boundaries of the development if deemed necessary to minimize or prevent trespassing or other adverse effects on adjacent lands.

The Project has been designed to be completely enclosed in a seven-foot-high perimeter fence, which will restrict unauthorized access, as required by federal regulation. This will be constructed of wood post woven fiber deer fencing. The Applicant will pursue a resolution as a condition of SLUP approval to allow for a seven-foot-high fence for the Project, as is required by federal law. Fencing will comply with all other requirements set forth in Section 2.17 of the Jonesville-Fayette Zoning Code.

O. The general purposes and spirit of this Ordinance and the Master Plan

The Project is consistent with the purposes and spirit of both the Jonesville-Fayette Zoning Ordinance and Jonesville-Fayette Master Plan. Special Land Uses do not fit into the typically permitted uses of a given zoning district. For this reason, the Jonesville-Fayette Zoning Code has set forth a Special Land Use permitting process that is intended to provide greater scrutiny and opportunity to assess a proposed Special Land Use for its compatibility with the surrounding area. The proposed use of the Project area for the construction and operation of a solar farm is fittingly being assessed as a Special Land Use.

In addition, the Project is compatible with the stated goals of the Jonesville-Fayette Master Plan related to maintaining the rural and small-town character of the community. Although the Project will temporarily remove certain properties for agricultural production, it will not negatively impact agricultural use of the surrounding properties. Instead, the Project will benefit the surrounding agricultural areas by being planted with pollinator-friendly vegetation. Properties enrolled in a Michigan Farmland Rights Agreement (PA 116 Agreement) may be developed as a solar farm, provided that the solar developer complies with a number of conditions, including that the Project is designed and planted to achieve a score of at least 76 on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites. In addition, the site must be maintained so that the land can be returned to agricultural uses at the end of the solar agreement, at which point, the existing PA 116 Agreement is continued. Allowing the soils to "rest" from yearly agricultural use would also help to restore nutrients into soils and at the end of the Project's operational life, the Project area could be returned to agricultural use.

The small-town character of the community will also be unaffected. As described in the Real Estate Adjacent Property Value Impact Report (**Appendix I**), solar facilities of similar size and in similar rural areas in Michigan and across the Midwest have consistently been shown to have no measurable impact on property values in the surrounding area. The Project would instead benefit the local, regional, and state economies by providing employment during construction, and production taxes once in operation. In the first year of operation alone, tax revenue from the Project is anticipated to provide over $70,000 for the local library, $975,000 for Jonesville Community Schools and Hillsdale Community Schools, including payments towards school debt, and over $184,000 for health and senior services in Hillsdale County. Refer to the Project Property Tax Impact Assessment (**Appendix J**).

The Project is also consistent with the Master Plan's stated goal of preservation of sensitive natural features. The Applicant has conducted numerous environmental studies to identify such sensitive areas and has refined Project design and sited so as to avoid and minimize impacts to these features. The Project is attempting to avoid impacts to wetlands and watercourses, to the extent practicable. In addition, Atwell and the Applicant are coordinating with the USFWS to complete a detailed habitat assessment for wooded areas that may be cleared, which would be used to further refine Project design so as to avoid impacts to high-quality habitat for threatened and endangered bat species.

VI. ADDITIONAL INFORMATION

1) CERTIFICATIONS

The Applicant will comply with all applicable federal, state, and local laws and regulations and will obtain all required federal, state, and local approvals, licenses, permits or variances for the proposed large solar energy system prior to the start date of construction. The Applicant ensures their projects are sited in an environmentally responsible manner and in compliance with all applicable local, state, and federal laws and regulations.

The following list represents some of the permits and approvals being reviewed as part of this project:

ENTITY / APPLICATION	DESCRIPTION	STATUS
EGLE-WRD	Potential NREPA permits/approvals include: ● Part 31 Floodplains ● Part 301 Watercourses ● Part 303 Wetlands	Application Anticipated
Hillsdale County	Soil Erosion and Sedimentation Control Permit	Application Anticipated
Consumers Energy	Electrical Line Easement Crossing Agreements	Application Anticipated
Michigan Department of Transportation	Railroad Crossing Agreements	Application Anticipated

2) CONSTRUCTION CODES AND INTERCONNECTION STANDARDS

Applicant will comply with all applicable state construction and electrical codes and Hillsdale County building permit requirements, as well as all applicable utility, Michigan Public Service Commission, and Federal Energy Regulatory Commission interconnection standards.

3) CONSTRUCTION SCHEDULE

Upon approval of the SLUP application, the below table depicts an anticipated construction schedule outlining major Heartwood Solar milestones.

Heartwood Solar Milestones	
Mobilization	Fall, 2023
Start of Construction	Fall, 2023
Commercial Operation Date	Q3/Q4 2024

VII. CONCLUSION

This submission and its attachments demonstrate Applicant's compliance with the Fayette Township, Hillsdale County, Zoning Ordinance. Upon approval of the Special Land Use Permit, Ranger Power looks forward to the opportunity to construct the Project in 2023. The Project will supply clean renewable energy to the state and will operate safely and in compliance with all applicable local, state, and federal regulations.