

# EXHIBIT A

May 30, 2025

Mr. Drew Vielbig  
Headland Solar, LLC  
320 N Sangamon St, Suite 1025  
Chicago, IL 60607

**Re: Initial Preliminary Site Plan and Special Use Permit Review**

Per our ordinance after the special use permit application was received, Cohoctah Township has performed an initial review of the preliminary site plan and special use permit application submitted by Headland Solar, LLC. The Township has determined that the application incomplete.

The required items listed below have been identified are incomplete or missing from the application. The Township reserves the right to amend this list as its review continues and we seek reviews by consultants to advise the Planning Commission.

- *Statistical Data.* Site plan does not appear to include the following required information: total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped. Site Plan does not appear to include the name of the public school district serving the site.
- *Location and Height of Existing and Proposed Structures.* Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long term effect of the screening.
- *Location and Dimensions; Existing and Proposed Drives, Sidewalks, Etc.* Site plan does not appear to include location and dimensions of all existing and proposed drives, sidewalks, curb openings, signs, exterior lighting, curbing, parking areas, parking space, unloading areas, or easements.
- *Location of Proposed Landscaping.* Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long term effect of the screening.
- *Size and Location of Existing and Proposed Utilities.* Site plan does not appear to include size of existing and proposed utilities or proposed connections to public sewer or water supply system.

- *Drainage Facilities.* Site plan does not appear to include size of all existing and proposed surface water drainage features. Site plan does not appear to include the percent coverage of impervious surfaces and the means to control storm water flow.
- *Contour Intervals.* Site plan does not reflect two-foot intervals, referenced to USGS datum.
- *Registered Designer.* Application does not appear to contain signatures and/or seals for drawings, engineering estimates and special cost estimates.
- *Traffic Impact.* Application does not appear to include a traffic impact assessment or information specifying why one is not required.
- *Parcels.* At least one easement is not included or recorded.
- *Written emergency response plan.* Emergency Response Plan does not appear to include analysis of whether adequate resources exist to respond to fire and other emergencies. Emergency Response Plan does not appear to include plan to provide those resources, if necessary. Emergency Response Plan does not appear to include plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.
- *Fire suppression system.* Application reflects that fire extinguishers will be used but does not appear to include description of manufacturer of the extinguishers, their operation, or their capacity to extinguish fires. Further fire suppression systems do not appear to be discussed.
- *Ground and ariel photographs.* Application does not appear to include physical and electronic copies of current ground and aerial photographs.
- *Purchase power agreement.* Application does not appear to include a purchase power agreement or other written agreement showing approval of an interconnection.
- *Maintenance plan.* Application reflects that applicant has requested drain tile mapping from landowners and the Drain Commissioner. Application does not appear to contain a plan for maintaining and inspecting tiles. Application generally discusses stormwater management and states that project will materially alter stormwater flows but contains no specific mitigation or maintenance plans.
- *Decommissioning.* The decommissioning plan and proposed decommissioning agreement do not appear to provide evidence of proposed commitments with property owners.
- *Transportation plan.* Application does not appear to contain the required transportation plan.
- *Indemnification.* Application does not appear to include required attestations of indemnification.

- *Manufacturer's directions or instructional manual.* Application does not appear to include these materials.
- *Ground cover vegetation establishment and management plan.* Application contains only minimal details that discretionary plans will be made after input from property owners. Application generally references ground cover plans but does not include specific plans or management plan.
- *Proof of environmental compliance.* Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.
- *Groundwater analysis.* Application does not appear to contain groundwater analysis.
- *Boundary survey.* Application does not appear to indicate that the site plan was prepared by a surveyor licensed in the State of Michigan.
- *Interconnection.* Application is unclear regarding exact location of interconnection and how connection will be effectuated.
- *Plans for land clearing and grading.* Application generally references that some grading will be needed but does not include specific plans.
- *Wildlife corridor.* Application does not appear to include wildlife corridor plans.
- *Security plan.* Application does not appear to include a formal security plan.
- *Maintenance plan.* Application does not appear to include a maintenance plan that specifies plans for landscaping upkeep, regular checks, maintenance of equipment (including maintenance schedules and types of maintenance to be performed), decommissioning, and removal.
- *Anticipated construction schedule.* Application does not specify hours of construction, schedule, and completion dates.
- *Sound modeling.* Sound modeling study appears to be missing analysis of sound isolines to property lines.
- *Visual Impact Assessment.* Application does not appear to include a visual impact assessment.
- *Environmental Analysis.* Environmental Compliance Report is vague and conclusory. Author has not yet been approved by the Township. Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.
- *Stormwater Study.* Stormwater mitigation plan lacks required details. Author has not yet been approved by the Township. Solar Array Runoff and Water Quality Compliance memos not included in application.

- *Glare Study*. The glare study is not included in the application.
- *Wildlife impact study*. Environmental Compliance Report or application does not reference wildlife corridors and does not consider impact upon existence of eagles and nests.
- *Soil Study*. Soil study does not appear to discuss Cation Exchange Capacity.

Please provide or clarify the missing information discussed above not later than June 30, 2025. The application will be deemed complete once all required information has been verified as received. If you need an extension to provide the missing information, the Township will agree to such an extension pursuant to Public Act 233 of 2023. If the information is not provided by June 30, 2025, the Township will treat that date as the starting date for its review to either approve or deny the application.

Sincerely,

---

Stephen Bronsberg, Zoning Administrator

---

Mark Fosdick, Supervisor

88436:00003:201537308-1

# EXHIBIT B



Headland Solar, LLC  
320 N Sangamon St. #1025  
Chicago, IL 60607

June 25, 2025

Cohoctah Township  
Attn: Supervisor Mark Fosdick & Zoning Administrator Bronsberg  
10518 Antcliff Road  
Fowlerville, MI 48836

**Re: Initial Preliminary Site Plan and Special Use Permit Review**

Supervisor Fosdick,

In response to Cohoctah Township's initial review letter dated May 30, 2025 ("Review Letter") of the preliminary site plan and special use permit applications submitted by Headland Solar, LLC, we offer the below response.

As detailed below with citations to the relevant application materials, most items listed in the Review Letter were provided by Headland Solar with our initial application submission on April 30, 2025. The remainder of the claimed "incomplete or missing" items are either not required under the Zoning Ordinance, or go beyond the requirements of PA 233 (further evidence that the Township has not adopted a CREO), and thus will not be provided by Headland Solar. As we have stated before, our application is fully compliant with Section 226(8).

The Township has now had our application materials for eight (8) weeks. With respect to the Township's assertion that it will treat June 30, 2025 as the starting date for its review, this appears to be either a mistake or further intentional disregard for the requirements of PA 233, which state that the Township has 120 days from the date in which the application is received to issue a decision. As previously confirmed, the Township received Headland Solar's application on April 30, 2025, which triggered the 120-day period for the Township to issue a decision.

Sincerely,

Headland Solar, LLC



Township Request	<i>Traffic Impact. Application does not appear to include a traffic impact assessment or information specifying why one is not required.</i>
Headland Response	Refer to Exhibit A-1.3(a)(iv) – “Impacts to Traffic”.  Refer to the Site Plan in Exhibit A-1.1 for the Proposed Haul Route Plan

Township Request	<i>Parcels. At least one easement is not included or recorded.</i>
Headland Response	Refer to Exhibit A-1.6 – Change #8

Township Request	Maintenance plan. Application reflects that applicant has requested drain tile mapping from landowners and the Drain Commissioner. Application does not appear to contain a plan for maintaining and inspecting tiles. Application generally discusses stormwater management and states that project will materially alter stormwater flows but contains no specific mitigation or maintenance plans.
Headland Response	Refer to Exhibit A-1.3(a)(vi) – “Impacts to county and intercounty drains and preliminary plans to minimize, mitigate, and repair drainage issues”.

Township Request	Groundwater analysis. Application does not appear to contain groundwater analysis.
Headland Response	The Project will not complete a groundwater analysis as this requirement exceeds the requirements as defined by PA 233.

Township Request	Boundary survey. Application does not appear to indicate that the site plan was prepared by a surveyor licensed in the State of Michigan.
Headland Response	A Boundary survey has not yet been finalized as of the time of this application submittal. A Boundary survey will be provided prior to the commencement of construction.

Township Request	Security plan. Application does not appear to include a formal security plan.
Headland Response	The Project will not complete a security plan as this requirement exceeds the requirements as defined by PA 233.

Township Request	Wildlife impact study. Environmental Compliance Report or application does not reference wildlife corridors and does not consider impact upon existence of eagles and nests.
Headland Response	Refer to Exhibit A-6.2  Refer to Exhibit A-1.3.(a)1.i. - Environmental and Natural Resource impacts



Township Request	<i>Statistical Data.</i> Site plan does not appear to include the following required information: total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped. Site Plan does not appear to include the name of the public school district serving the site.
Headland Response	The Site Plan submitted to the Township includes all required information and requirements as defined by PA 233.

Township Request	<i>Location and Height of Existing and Proposed Structures.</i> Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long-term effect of the screening.
Headland Response	Aerial backgrounds are included on all sheets of the Site Plan which contain planned facilities. Refer to the Sheets 01 and 03-25 of the Site Plan in Exhibit A-1.1.

Township Request	<i>Plans for land clearing and grading.</i> Application generally references that some grading will be needed but does not include specific plans and indicates that additional study is needed.
Headland Response	Refer to Solar Details & Construction Information on Sheet 30 of the Site Plan in Exhibit A-1.1 for additional details on the grading requirements for proposed project infrastructure.  For a complete overview of the stormwater mitigation measures and consultation outcomes, the Preliminary Stormwater Management Plan is available for review in Exhibit A-6.4.

Township Request	<i>Location and Dimensions; Existing and Proposed Drives, Sidewalks, Etc.</i> Site plan does not appear to include location and dimensions of all existing and proposed drives, sidewalks, curb openings, signs, exterior lighting, curbing, parking areas, parking space, unloading areas, or easements.
Headland Response	Illustrative details are shown for Access Road Details on Sheet 29 of the Site Plan in Exhibit A-1.1

Township Request	<i>Location of Proposed Landscaping.</i> Site plan does not appear to include existing landscaping, greenbelts, separation berms, fences, and walls. Site plan does not appear to include long-term effect of the screening.
Headland Response	Refer to the Proposed Landscape Plan included with the Site Plan in Exhibit A-1.1



	Refer to the Fencing details included with the Site Plan in Exhibit A-1.1
--	---

Township Request	<i>Size and Location of Existing and Proposed Utilities.</i> Site plan does not appear to include size of existing and proposed utilities or proposed connections to public sewer or water supply system.
Headland Response	The Project does not anticipate usage of any public sewer or water supply system.  All existing site elements, such as public roads, known utilities, parcel boundaries, and known easements, are represented based on available spatial data, depicting the approximate locations of relevant components within the Project’s footprint. Refer to the Site Plan in Exhibit A-1.1 of this application.

Township Request	<i>Drainage Facilities.</i> Site plan does not appear to include size of all existing and proposed surface water drainage features. Site plan does not appear to include the percent coverage of impervious surfaces and the means to control storm water flow.
Headland Response	The Project has implemented a Preliminary Stormwater Management Plan which includes water quality basins and water quality swales designed to the requirements of LCDC. Refer to the Site Plan in Exhibit A-1.1 for the locations of proposed measures, and the Preliminary Stormwater Management Plan in Exhibit A-6.4 for the stormwater design guidance and proposed stormwater improvements. Refer to Summary of Agency Consultation in Exhibit A-4.4 for summary of coordination with LCDC.

Township Request	<i>Contour Intervals.</i> Site plan does not reflect two-foot intervals, referenced to USGS datum.
Headland Response	A site plan was prepared for the Project using the latest edition of USGS maps, GIS mapping, and preliminary ALTA surveys and includes all required information and requirements as defined by PA 233.

Township Request	<i>Registered Designs</i> Application does not appear to contain signatures and/or seals for drawings, engineering estimates and special cost estimates.
Headland Response	The Site Plan submitted to the Township is preliminary, and therefore, not certified.  Details on engineering estimates and special cost estimates are outside of the Project’s application requirements as defined by PA 233.



Township Request	<i>Written emergency response plan.</i> Emergency Response Plan does not appear to include analysis of whether adequate resources exist to respond to fire and other emergencies. Emergency Response Plan does not appear to include plan to provide those resources, if necessary. Emergency Response Plan does not appear to include plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.
Headland Response	Additional coordination between the Project and respective local fire departments is anticipated to ensure adequate resources exist to respond to fire and other emergencies.  Refer to Fire Response Plan provided in Exhibit A-1.10 and Emergency Response Plan in Exhibit A-1.9

Township Request	<i>Fire suppression system.</i> Application reflects that fire extinguishers will be used but does not appear to include description of manufacturer of the extinguishers, their operation, or their capacity to extinguish fires. Further fire suppression systems do not appear to be discussed.
Headland Response	Additional coordination between the Project and respective local fire departments is anticipated to finalize plans regarding the proposed fire suppression systems for the Project.  Refer to Fire Response Plan provided in Exhibit A-1.10 and Emergency Response Plan in Exhibit A-1.9

Township Request	<i>Ground and ariel photographs</i> Application does not appear to include videos or photographs.
Headland Response	As required by section C.1.i. of the Township’s ordinance, this information will be provided prior to construction.

Township Request	<i>Purchase power agreement.</i> Application does not appear to include a purchase power agreement or other written agreement showing approval of an interconnection.
Headland Response	As of the time of this filing, the Project does not have a Power Purchase Agreement.  An executed generator interconnection agreement is expected in Q3 of 2025

Township Request	<i>Decommissioning and land reclamation.</i> The decommissioning plan and proposed decommissioning agreement do not appear to provide evidence of proposed commitments with property owners.
------------------	--



Headland Response	Details regarding proposed commitments with property owners are confidential. The Project's proposed Decommission Plan is provided in Exhibit A-13.1 of the application and sufficiently addressed the decommissioning requirements as defined by PA 233.
Township Request	<i>Transportation plan.</i> Application does not appear to contain the required transportation plan.
Headland Response	Refer to the Site Plan in Exhibit A-1.1 for the Proposed Haul Route Plan.
Township Request	<i>Indemnification.</i> Application does not appear to include required attestations of indemnification.
Headland Response	This exceeds the requirements as defined by PA 233 and will not be provided.
Township Request	<i>Manufacturers directions or instructional manual.</i> Application does not appear to include these materials.
Headland Response	This exceeds the requirements as defined by PA 233 and will not be provided.
Township Request	<i>Ground cover vegetation establishment and management plan.</i> Application contains only minimal details that discretionary plans will be made after input from property owners. Application generally references ground cover plans but does not include specific plans or management plan.
Headland Response	Refer to the Proposed Vegetation Management Plan included with the Site Plan in Exhibit A-1.1.
Township Request	<i>Proof of environmental compliance.</i> Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.
Headland Response	In the event that there are proposed impacts to state regulated floodplains and/or EGLE regulated wetlands, Part 303, 301 and/ or 31 permits would likely be required by EGLE for dredge and fill activities within regulated features. The Project will obtain all necessary EGLE permits prior to impacting regulated features requiring a permit.
Township Request	<i>Interconnection.</i> Application is unclear regarding exact location of interconnection and how connection will be effectuated.
Headland Response	The proposed location of the Project's point of interconnection is shown in the Site Plan in Exhibit A-1.1.



Township Request	<i>Anticipated construction schedule.</i> Application does not specify hours of construction, schedule, and completion dates.
Headland Response	Refer to Exhibit A-3 for details on Project construction Schedule.  Construction activities will be conducted primarily during daylight hours, up to seven days per week. Smaller vehicles for personnel arriving on-site may continue through later hours if needed to maintain the Project's construction schedule.
Township Request	<i>Sound modeling.</i> Sound modeling study appears to be missing analysis of sound isolines to property lines.
Headland Response	A sound report, in full compliance with all listed regulations, has been prepared and is available in Exhibit A-1.7.
Township Request	<i>Visual Impact Assessment.</i> Application does not appear to include a visual impact assessment.
Headland Response	Refer to the Site Plan in Exhibit A-1.1 and Visual Simulations in Exhibit A-1.3.
Township Request	<i>Environmental Analysis.</i> Environmental Compliance Report is vague and conclusory. Author has not yet been approved by the Township. Application appears to lack proof of compliance with Part 91, Part 301, and Part 303.
Headland Response	In the event that there are proposed impacts to state regulated floodplains and/or EGLE regulated wetlands, Part 303, 301 and/or 31 permits would likely be required by EGLE for dredge and fill activities within regulated features. The Project will obtain all necessary EGLE permits prior to impacting regulated features requiring a permit.  The Project rejects the claim that the Township must approve the author of such reports prepared by the Applicant.
Township Request	<i>Stormwater Study.</i> Stormwater mitigation plan lacks required details. Author has not yet been approved by the Township. Solar Array Runoff and Water Quality Compliance memos not included in application.
Headland Response	The Project rejects the claim that the Township must approve the author of such reports prepared by the Applicant.  For a complete overview of the stormwater mitigation measures and consultation outcomes, the Preliminary Stormwater Management Plan is available for review in Exhibit A-6.4.



Township Request	<i>Glare Study.</i> The glare study is not included in the application.
Headland Response	Refer to the Glare Study in Exhibit A-1.3 for details. The Glare Study includes a detailed analysis that totals 1028 pages. This detailed analysis was not included in the application. However, upon request, Headland Solar can provide an electronic or hard copy of the full Glare Study that includes the full analysis.
Township Request	<i>Soil Study.</i> Soil study does not appear to discuss Cation Exchange Capacity.
Headland Response	A Custom Soil Resource Report has been generated for the Project Area and 1000-foot buffer as well as for the entire Livingston County. Refer to the Soil and Economic Survey Report available in Exhibit A-6.1.  The Project will not be completing a baseline soil test including Cation Exchange Capacity (CEC) as this requirement exceeds the requirements as defined by PA 233.
Township Request	<i>Wildlife corridors.</i> Application does not appear to consider, address, or plan for wildlife corridors.
Headland Response	Wildlife corridors exist throughout the Project area based on the configuration of the Project's fence and the preservation of existing environmentally sensitive features throughout the project area.

# EXHIBIT C

**From:** [Michael Vogt](#)  
**To:** [Homier, Michael](#)  
**Cc:** [Spendlove, Amanda](#); [Brown, Keith](#); [John A. Weiss](#)  
**Subject:** RE: Headland Solar - Response to Cohoctah Township Extension Request [IMAN-LEGAL.FID1491205]  
**Date:** Friday, July 18, 2025 4:34:11 PM  
**Attachments:** [image953262.png](#)  
[image823684.png](#)  
[image869936.png](#)

---

[CAUTION - EXTERNAL EMAIL] DO NOT reply, click links, or open attachments unless you have verified the sender and know the content is safe.

Confirmed that the same extension is granted for Conway Twp.



**Michael Vogt**

Member

O:248-631-2070

[MVogt@dickinsonwright.com](mailto:MVogt@dickinsonwright.com)

---

2600 West Big Beaver, Suite 300, Troy, MI 48084

---

**From:** Homier, Michael <MHomier@fosterswift.com>  
**Sent:** Friday, July 18, 2025 4:17 PM  
**To:** Michael Vogt <MVogt@dickinson-wright.com>  
**Cc:** Spendlove, Amanda <ASpendlove@fosterswift.com>; Brown, Keith <kbrown@fosterswift.com>  
**Subject:** FW: Headland Solar - Response to Cohoctah Township Extension Request [IMAN-LEGAL.FID1491205]

Mike,

I was copied on the email below and wanted to inquire whether the same extension will be given to Conway Township. Can you please advise. Thanks.

**Michael D. Homier**

Shareholder

Foster Swift Collins & Smith PC

1700 East Beltline, N.E., Suite 200

Grand Rapids, MI 49525-7044

Phone: 616.726.2230; 517.371.8120

Mobile: 517.285.4251

Fax: 517.367.7120

[mhomier@fosterswift.com](mailto:mhomier@fosterswift.com)

[www.fosterswift.com](http://www.fosterswift.com)

Please consider the environment before printing this email.

---

**From:** Drew Vielbig <dvielbig@rangerpower.com>  
**Sent:** Friday, July 18, 2025 4:14 PM  
**To:** jessicabuttermore@gmail.com; Mark Fosdick <supervisor@cohoctahtownship.gov>  
**Cc:** Homier, Michael <MHomier@fosterswift.com>

**Subject:** Headland Solar - Response to Cohoctah Township Extension Request

[CAUTION - EXTERNAL EMAIL] DO NOT reply, click links, or open attachments unless you have verified the sender and know the content is safe.

Hello Mr. Fosdick and Ms. Buttermore,

I am writing to provide Headland Solar's response to the Township's request for a 3-week extension of the 120-day period in which the Township must take action on Headland Solar's application under PA 233. Headland Solar agrees to the requested 3-week extension, which moves the Township's deadline for taking action on Headland Solar's application back from August 28<sup>th</sup>, 2025 to September 16<sup>th</sup>, 2025.

With respect to the Township's scheduling of four additional meetings to consider Headland Solar's application, Headland Solar plans to attend the next scheduled meeting on July 29<sup>th</sup> in order to address the Planning Commission's questions. In addition to the July 29<sup>th</sup> meeting, Headland Solar will also attend the proposed August 26<sup>th</sup> meeting where the Planning Commission will vote on Headland Solar's application. If, due to the 3-week extension granted by this email, the Township reschedules the August 26<sup>th</sup> meeting to another date when the Planning Commission will vote on the application, then Headland Solar will plan to attend that meeting. We would respectfully request advanced notice of any proposed rescheduling of the August 26<sup>th</sup> meeting so we can confirm that the appropriate Headland Solar representatives are available to attend.

Thank you,

Drew

--

**Drew Vielbig**

Director of Development | Ranger Power LLC

(517) 819-4059 | [drew@rangerpower.com](mailto:drew@rangerpower.com)

[www.rangerpower.com](http://www.rangerpower.com)

---

DISCLAIMER/CONFIDENTIALITY: This communication, along with any documents, files or attachments, is intended only for the use of the addressee and may contain legally privileged and confidential information. Any document attached is a legal document and should not be changed or altered without the knowledge and approval of legal counsel. The sender takes no responsibility for any alterations, additions, revisions or deletions to any such document. Due to software and printer variations, documents printed at the recipient's location may vary from the original printed document.

The information contained in this e-mail, including any attachments, is confidential, intended only for the named recipient(s), and may be legally privileged. If you are not the intended

recipient, please delete the e-mail and any attachments, destroy any printouts that you may have made and notify us immediately by return e-mail. Neither this transmission nor any attachment shall be deemed for any purpose to be a "signature" or "signed" under any electronic transmission acts, unless otherwise specifically stated herein. Thank you.

# EXHIBIT D



**Carlisle | Wortman**  
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: September 10, 2025

## Special Land Use and Site Plan Review For Cohoctah Township, Michigan

<b>Applicant:</b>	Headland Solar, LLC
<b>Project Name:</b>	Headland Solar
<b>Plan Date:</b>	April 21, 2025
<b>Parcel Number:</b>	Nineteen (19) various parcels, to be listed and shown on map
<b>Location:</b>	Northwestern corner of Cohoctah Township,
<b>Zoning:</b>	AR, Agricultural Residential RD, Resource Development
<b>Action Requested:</b>	Special Land Use, Site Plan Approval

### PROJECT AND SITE DESCRIPTION

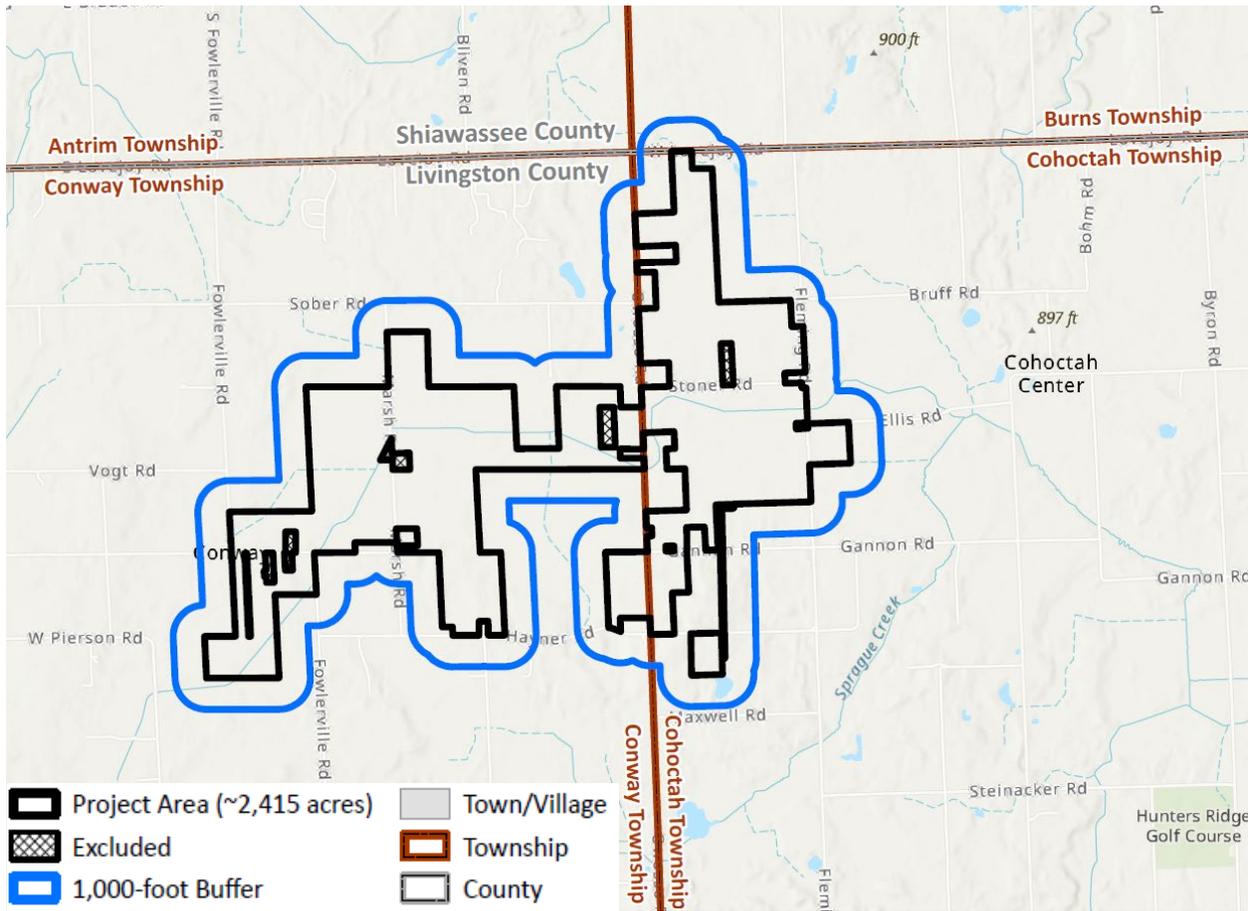
The Township is in receipt of a site plan and special land use review for a proposed utility scale solar facility in the northwest corner of the Township, spanning over nineteen (19) parcels and encompassing approximately five hundred seventy-two (572) acres of land. The proposed site is zoned between AR, Agricultural Residential and RD, Resource Development. **The current project area is not located within the recently established Solar Overlay District.** Much of the land within the development area consists of farmland, woodland, and open space.

The proposed large solar energy system is described by the applicant as a utility scale solar facility with a capacity of approximately 220 MW of photovoltaic solar panels located within Cohoctah and Conway townships. There are 47 participating parcels owned by 12 private landowners included in the project, totaling approximately 2,415 acres of site area between the two townships with approximately 1,248 acres consisting of fenced in solar panels.

The Project will consist of solar panels and inverters arranged in photovoltaic (PV) arrays. Associated facilities and infrastructure include the Project substation, operations and maintenance building (O&M), gen-tie to point of interconnection (POI), underground electrical cables (collection) to the Project substation, perimeter fencing, landscape screening, water quality basins and swales, county drain improvements, and gravel access roads to each PV array and the Project substation. Construction is expected to begin in 2027, with commercial operation anticipated in 2029.

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*  
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*  
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*  
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

Figure 1, Project Boundaries



Source: Provided by applicant

**LAND USE, ZONING, AND MASTER PLAN DESIGNATIONS**

The zoning, land use, and Master Plan designations of the subject site and surrounding properties is provided in Table 1 below:

**Zoning, Land Use and Master Plan Designations**

Direction	Zoning	Existing Use	Future Land Use
<b>Project Site</b>	<ul style="list-style-type: none"> <li>AR, Agri. Residential</li> <li>RD, Resource Dev.</li> </ul>	<ul style="list-style-type: none"> <li>Farmland</li> <li>Open space</li> </ul>	<ul style="list-style-type: none"> <li>Argi./Residential</li> <li>River Conservation</li> </ul>
<b>North (Burns Twp)</b>	<ul style="list-style-type: none"> <li>A-2, Agri. Production/Rural Residential</li> </ul>	<ul style="list-style-type: none"> <li>Single-family homes</li> <li>Open space</li> </ul>	<ul style="list-style-type: none"> <li>Unknown</li> </ul>
<b>South</b>	<ul style="list-style-type: none"> <li>AR, Agri. Residential</li> </ul>	<ul style="list-style-type: none"> <li>Single-family homes</li> <li>Open space</li> </ul>	<ul style="list-style-type: none"> <li>Argi./Residential</li> </ul>
<b>East</b>	<ul style="list-style-type: none"> <li>AR, Agri. Residential</li> <li>RD, Resource Dev.</li> </ul>	<ul style="list-style-type: none"> <li>Single-family homes</li> <li>Open space</li> </ul>	<ul style="list-style-type: none"> <li>Argi./Residential</li> </ul>
<b>West (Conway Twp)</b>	<ul style="list-style-type: none"> <li>A/R, Agri. Residential</li> <li>R, Residential</li> </ul>	<ul style="list-style-type: none"> <li>Single-family homes</li> <li>Open space</li> </ul>	<ul style="list-style-type: none"> <li>Argi./Residential</li> </ul>

The subject site and the surrounding area are mainly farmland with adjacent rural residential homesteads and occasional woodlands/wetlands. The Future Land Use map classifies the project area as Agricultural/Residential and River Conservation, due to the Cohoctah Union Drain running through a portion of the site. The Agricultural/Residential future land use category is intended to encourage the continuation and further development of agricultural activities while providing opportunities for low-density residential development in areas of significant agricultural resources. The River Conservation future land use category is intended to preserve and protect identified wetlands and waterways from adverse impacts of development.

**Items to be Addressed:** *Planning Commission to determine project compatibility with surrounding land uses.*

### SPECIAL LAND USE REVIEW STANDARDS

Before a site plan can be fully approved by the Township, the project must first gain special land use approval to ensure compatibility with the surrounding area. Section 13.06 lists the review standards all special land uses within the Township must satisfy:

**A. Will be harmonious with and in accordance with the general objectives, intent and purposes of this Ordinance.**

**CWA Comment:** *The intent of the AR and RD Districts are as follows:*

*AR - "Provide for the compatible arrangement and development of parcels of land for residential building purposes in a pastoral, agricultural, woodland or open land setting, which will remain unserved by public water distribution and wastewater disposal systems in the foreseeable future"*

*RD - "provide for the arrangement of land uses that are compatible with the conservation and preservation of large tracts of land presently having a most desirable natural environment, which should not be disturbed except minimally, for natural habitat for wildlife, native flora, natural water features, including extensive wetlands and high water table soils, and other extensive land uses which retain the natural character of the area."*

*The proposed development will remain unserved by public water and sewer, utilizing open farmland with minimal tree removal. The project will also be required to receive any and all outside agency approval regarding compatibility and preserving surrounding natural features.*

**B. Will be designed, constructed, operated, maintained and managed so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity.**

**CWA Comment:** *Preliminary plans indicate minimal tree clearing will take place as part of the project, with the proposed solar arrays being proposed in already open areas/farmland. Landscaped greenbelts are also proposed in areas that are not currently screened near residential properties. Additional details will be required during site plan review.*

**C. Will be served adequately by essential public facilities and services such as highways, roads, police and fire protection, drainage structures, and refuse disposal, or that the persons or agencies responsible for the establishment of the proposed special use shall be able to provide adequately any such service.**

**CWA Comment:** *The project will be accessible via Owosso and Fleming Road and will be served by the Fowlerville Area Fire Department and Howell Area Fire Authority. Any solid waste generated by the facility will be handled and disposed of in a manner that complies with applicable environmental regulations as stated by the applicant.*

**D. Will not be hazardous or disturbing to existing or future neighboring uses.**

**CWA Comment:** *The proposed solar arrays are shown to be at least three hundred (300) feet and screened from nearby residential uses, with little traffic occurring on site, that of which consists of routine maintenance and inspection by project staff. The applicant should provide an anticipated traffic report regarding impacts to local traffic during construction.*

**E. Will not create excessive additional requirements at public cost for public facilities, utilities and services.**

**CWA Comment:** *We are of the opinion that the proposed project will not create excessive public costs for the Township and its residents.*

***Items to be Addressed:*** *Planning Commission to determine project compatibility with special land use criteria.*

### SPECIFIC USE STANDARDS

Section 13.27(C)(2), Solar Energy Systems outlines specific standards for utility scale solar energy systems in applying for special land use and site plan approvals. The following information is required in review of the Special Land Use application:

**1. The name of the applicant, any parent company, subsidiary of the parent company, along with any “doing business as” of the parent company.**

**CWA Comment:** *The name of the applicant as indicated on the submitted special land use application is Headland Solar, LLC. There is no indication of a parent company, subsidiary, or any “doing business as” names indicated.*

**2. Application fee in an amount set by resolution or fee schedule approved by the Township Board.**

**CWA Comment:** *The application fee set by resolution or fee schedule by the Township Board was provided.*

**3. A list of all parcel numbers that will be used by the Utility-Scale Solar Energy System including applicable attachments, establishing ownership of each parcel, with all lease agreements, easements, or purchase agreements for the subject parcels. All agreements related to the use of the subject parcels must be recorded with the Livingston County Register of Deeds.**

**CWA Comment:** *Exhibit A-1.15 provides a list of all participating parcels for the project.*

**4. An operations agreement setting forth the operations parameters, the name and contact information of the certified operator, the applicant’s inspection protocol, emergency procedures, and general safety documentation.**

**CWA Comment:** *An emergency response plan has been included in exhibit A-1.9 which outlines emergency procedures. Contact information for the site operator does not appear to be included. An operations agreement between all affected parties should be provided.*

- 5. A written emergency response plan detailing the applicant’s plan for responding to emergencies, including fire emergencies, and analyzing whether adequate resources exist to respond to fires and other emergencies. If adequate resources do not exist, the applicant must identify its plan for providing those resources.**

**CWA Comment:** *An emergency response plan has been included in exhibit A-1.9. The plan indicates the applicant will provide equipment, resources, and training to ensure adequate resources are available in the event of an emergency. The applicant has also stated, “additional coordination between the Project and respective local fire departments is anticipated to ensure adequate resources exist to respond to fire and other emergencies.” Additional information that is needed includes an analysis of whether adequate resources exist to respond to fire and other emergencies, a plan to provide those resources, plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.*

- 6. A written description of the fire suppression system that will be installed, which must identify the manufacturer of the fire suppression system and generally describe its operations and capacity to extinguish fires.**

**CWA Comment:** *Exhibit A-1.10 contains a fire response plan. The plan states, “the operations and management (O&M) building will be equipped with appropriate fire prevention and response systems to address potential fire emergencies. This includes the provision of fire extinguishers and other necessary equipment designed to extinguish small or incipient fires effectively.” The manufacturer of the fire suppression system does not appear to be provided. We defer further review of the fire response plan to the Fowlerville Area Fire Department and Howell Area Fire Authority.*

- 7. Current ground and aerial photographs of the participating property, in both a physical and electronic copy of the photographs.**

**CWA Comment:** *Aerial photographs are overlaid onto the site plan. Physical copies should also be provided.*

- 8. A copy of the applicant’s power purchase agreement or other written agreement, with any exhibits or attachments thereto, with an electric utility showing approval of an interconnection with the proposed Utility-Scale Solar Energy System.**

**CWA Comment:** *A note from the applicant states, “as of the time of this filing, the Project does not have a Power Purchase Agreement. An executed generator interconnection agreement is expected in Q3 of 2025.” Proof of such agreement should be presented prior to final site plan approval.*

- 9. A written plan for maintaining the subject property, including a plan for maintaining and inspecting drain tiles and addressing stormwater management.**

**CWA Comment:** *A dedicated maintenance plan does not appear to be provided. We ask the applicant to provide additional information regarding typical maintenance activities.*

10. **A decommissioning and land reclamation plan describing the actions to be taken following the abandonment or discontinuation of the Utility-Scale Solar Energy 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 Solar Energy System and restore the subject parcels.**

**CWA Comment:** *A decommissioning plan has been provided in exhibit A-13.1. Proposed commitments to property owners does not appear to be provided.*

11. **Financial security in the manner of an escrow account funded at \$25,000.00 with a statement that those funds are to be used pursuant to this Ordinance. The escrow fee must be deposited with the Township in cash. The applicant must replenish the escrow account if it has less than \$5,000.00 in it in the amount of estimated outstanding costs. Failure to replenish the escrow account will result in the Township suspending the processing or finalizing of the application.**

**CWA Comment:** *An escrow has been provided to the Township.*

12. **A plan for resolving complaints from the public or other property owners concerning the construction and operation of the Utility-Scale Solar Energy System.**

**CWA Comment:** *Exhibit A-1.16 provides an overview of the complaint resolution process, which includes filing procedures and a sample complaint form.*

13. **A plan for managing any hazardous waste.**

**CWA Comment:** *A dedicated plan does not appear to be provided. The project narrative provides the following information: "Waste and hazardous materials will be collected and stored in proper storage containers at the O&M building on-site prior to disposal. Waste that cannot be recycled will be transported to an approved landfill facility. Recyclables, such as metals, glass, plastics and paper products will be taken to certified recycling facilities. Any materials deemed hazardous will be managed according to applicable environmental regulations, with the involvement of certified hazardous waste disposal companies."*

14. **A transportation plan for construction and operation phases, including any applicable agreements with the Livingston County Road Commission and Michigan Department of Transportation.**

**CWA Comment:** *A haul route plan is shown on sheet 26 of the current site plan, however more information anticipated traffic counts, peak hours of transport, and types of vehicles anticipated should be provided. Roads that are shown to be used include but are not limited to Fowlerville, Hayner, Flemming, Owosso, Lovejoy, and Stoner Roads. All roads mentioned fall under the jurisdiction of the Livingston County Road Commission.*

15. **An attestation that the applicant will indemnify and hold the Township, and its elected and appointed officials, harmless from any costs or liability arising from the approval, installation, construction, maintenance, use, repair, or removal of the Solar Energy System. The Township shall be named as an additional insured for such indemnity under C.23.**

**CWA Comment:** *Documentation for the above requirement has not been provided.*

16. **A copy of the manufacturer’s directions or instruction manual for installing, maintaining, and using the Utility-Scale Solar Energy System.**

**CWA Comment:** Documentation for the above requirement has not been provided.

17. **A ground cover vegetation establishment and management plan that complies with this ordinance.**

**CWA Comment:** A vegetation plan is provided on sheet 25, which outlines the locations that will be seeded with short pollinator mix.

18. **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.**

**CWA Comment:** The applicant has indicated all applicable permits required by the listed acts above will be obtained. We ask the applicant to provide copies of all obtained permits as they are granted.

19. **A groundwater analysis of all parcels in the participating property.**

**CWA Comment:** Documentation for the above requirement has not been provided.

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

**CWA Comment:** We encourage the Township Planning Commission, Board, and representatives to work with the applicant to determine if any additional information is needed.

**Items to be Addressed:** Planning Commission to determine if specific special land use standards have been met.

**SITE PLAN REVIEW**

**AREA, HEIGHT, SETBACKS**

Area, height, and setback requirements applicable to the project are outlined below:

	AR Requirement	RD Requirement	Proposed	Meets Requirement
<b>Lot Area (min)</b>	20 Acres	20 Acres	572 Acres	Yes
<b>Lot Width (min)</b>	200 Feet	200 Feet	200+ Feet	Yes
<b>Max. Lot Coverage</b>	20%	20%	Not Provided	No
<b>Building Height</b>	35 Feet	35 Feet	25 Feet	Yes*
<b>Front Setback</b>	50 Feet	50 Feet	50 Feet	Yes
<b>Side Setback</b>	20 Feet	20 Feet	50 Feet	Yes
<b>Rear Setback</b>	50 Feet	50 Feet	50 Feet	Yes

\*The project narrative states the maximum height of all proposed arrays and structures will not exceed twenty-five (25) feet.

**Items to be Addressed:** Provide lot coverage calculations.

### NATURAL RESOURCES

Topography:	Existing topography is relatively level. The property has been historically used for farming.
Woodlands:	Sparse woodlands are located on site, on the northern and southern portions of the site.
Wetlands:	Two (2) separate wetland areas regulated by EGLE are present on the northern and southern portions of the site. Exhibit A-6.2 indicates the applicant is currently in coordination with EGLE to obtain all necessary permits for construction near the wetland areas.
Soils:	Soils information has been provided as part of the site plan submittal. This information can be found in exhibit A-6.1. The applicant has indicated a SESC permit with Livingston County will be obtained before construction.

**Items to be Addressed:** Planning Commission to determine project compatibility with surrounding natural resources.

### BUILDING LOCATION AND SITE ARRANGEMENT

Site arrangement consists of solar arrays and subsequent facilities throughout the project area that meet all bulk setback requirements.

**Items to be Addressed:** None.

### ESSENTIAL FACILITIES

Notes on sheet 30 indicate water and sanitary sewer services are not anticipated for the project. A stormwater mitigation plan has been provided in exhibit A-6.4, for which we defer further review to the Township Engineer and Livingston County Drain Commission during final site plan review.

**Items to be Addressed:** Review of essential services and stormwater management by Township Engineer.

### PARKING, LOADING

No parking or loading facilities are required as the project area is not open to the public and will only be accessed for maintenance and upkeep purposes.

**Items to be Addressed:** None.

### SITE ACCESS AND CIRCULATION

A total of seven (7) access points and gravel service drives will serve the facility and are found along Owosso Road (3) and Fleming Road (4). All access drives shall be subject to Livingston County Road Commission approval as appropriate and shall be planned to minimize the use of land for that purpose.

Multiple notes on sheet 30 indicate compliance with Ingham County Road Commission requirements and will need to be revised to show Livingston County Road Commission.

**Items to be Addressed:** 1) Obtain LCRC approval of proposed access drives. 2) Change note 18 on sheet 30 to “Livingston County Road Commission.

### LIGHTING

Exhibit A-11 states no exterior lighting is proposed within the solar array areas, and will only include permanent lighting at the project substation and operations and maintenance building. The project narrative also states all proposed lighting will be down shielded. Fixture details of proposed lighting is shown on sheet 27. We ask the applicant to provide the location of all proposed fixtures during site plan review.

**Items to be Addressed:** Provide all lighting fixture locations.

### SIGNS

The project narrative indicates signage for the project will be limited to safety and contact information provided at all entry gates and points of access. Project signage will include the manufacturer or installer’s identification, appropriate warning signs, emergency contact information, operator contact information, and complaint resolution information.

**Items to be Addressed:** Provide all signage locations.

### FLOOR PLAN AND ELEVATIONS

No buildings are proposed as part of the project.

**Items to be Addressed:** None.

### STANDARDS FOR SITE PLAN REVIEW

Section 20.09 describes the standards the Planning Commission shall review for each individual site plan and make findings of fact relative to the following criteria:

- A. **Preservation of Natural Environment.** Existing conditions of the natural environment shall be preserved in their natural state, insofar as practicable, by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of adjacent and surrounding uses and development.

**CWA Comment:** As listed in exhibit A-6.2, Environmental Compliance Report, the project will implement a Soil Erosion and Sedimentation Control (SESC) Plan and best management practices (BMPs) to minimize adverse effects on soil and water quality during construction and will obtain a SESC permit with Livingston County before construction. Exhibit A-1.3, Minimize, Mitigate, and Repair Plan states existing natural areas will be maintained with limited grading. A grading plan should be submitted to the Township Engineer for additional review.

- B. **Relations of Proposed Land, Building and Structural Uses to Environment.** Proposed uses and structures shall be related harmoniously to the natural environment and to existing uses and structures in the vicinity that have a visual relationship to the proposed development. The achievement of such relationship may include the enclosure of space in conjunction with

existing uses and structures or other proposed uses and structures and the creation of special arrangements and focal points with respect to functional areas, avenues of approach, terrain features or other structures.

**CWA Comment:** *The majority of the project site will consist of solar arrays, with supporting inverters and a planned DTE substation and ITC switchyard, with both indicated to be part of separate applications. The planned locations for most solar arrays, substation, and switchyard are currently open farmland. We ask the applicant to provide an acreage count of total woodlands to be removed as part of the project.*

- C. **Drives, Parking and Circulation.** Vehicular and pedestrian circulation, including walkways, interior drives and parking, special attention shall be given to location and number of access points, general interior circulation, separation of pedestrian and vehicular traffic, and arrangement of parking areas that are safe and convenient and, insofar as practicable, do not adversely affect the design of proposed land, buildings and structures and adjacent and surrounding development areas.

**CWA Comment:** *The solar facility will not be open to the public, as a result no pedestrian circulation is anticipated. A total of seven (7) access points and gravel service drives will serve the facility and are found along Owosso Road (3) and Fleming Road (4). Due to the private nature of the project and minimal traffic generation, we are of the opinion that proposed site circulation is adequate. Proposed site circulation should be reviewed by the Township Engineer, Fowlerville Area Fire Department, and Howell Area Fire Authority to ensure adequate emergency access is provided.*

- D. **Surface Water Drainage.** Special attention shall be given to proper site surface drainage so that the flow of surface waters will not adversely affect adjacent and surrounding properties or the public storm drainage system. If practical, stormwater shall be removed from all roofs, canopies and paved areas and carried away in an underground piped drainage system. Surface water in all paved areas shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian traffic, and will not create impounded water on the paved areas.

**CWA Comment:** *Exhibit A-1.3, Minimize, Mitigate, and Repair Plan states multiple stormwater runoff measures are proposed. These include converting crops to meadows with gravel drives with limited site grading. Increased site setbacks from adjacent properties will also be used for additional runoff capture space and filtration. Multiple drainage basins are also proposed throughout the site.*

- E. **Utility Service.** Electric power and telephone distribution lines shall be underground. Any utility installations remaining aboveground shall be located so as to have a harmonious relation to adjacent properties and the site. The proposed method of sanitary sewage disposal from all buildings shall be indicated. All utility installation shall be carried out in accordance with the Standard Rules and Regulations of current adoption of the Michigan Public Service Commission.

**CWA Comment:** *No telephone distribution lines are anticipated for this project. The project narrative included in the submittal package indicates an executed generator interconnection agreement is expected to be finalized in Q3 2025. The current site plan indicates overhead transmission lines are proposed between two of the nineteen (2/19) parcels to connect to a proposed International Transmission Company (ITC) switchyard. The transmission lines will need to be buried underground and will be further reviewed in the specific site plan review section of this report.*

- F. **Advertising Features.** The size, location and lighting of all permanent signs and outdoor advertising structures or features shall be consistent with the requirements of Article XIX, "Sign Regulations."

**CWA Comment:** No advertising signs are proposed for the project. Per the applicant, "Signage for the Project will be limited to safety and contact information to provide the public with general information related to the facility and will be installed at all gates and other points of ingress and egress. Project signage will include the manufacturer or installer's identification, appropriate warning signs, emergency contact information, operator contact information, and complaint resolution information."

- G. **Special Features.** Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall reasonably be required to prevent their being incongruous with the existing natural and developed environment of adjacent and surrounding properties.

**CWA Comment:** All solar arrays are shown to be at least three hundred (300) feet from any residential structure. The proposed landscaping plan also demonstrates new greenbelt screening will be installed where there is not already existing screening between non-participating parcels. Property line setbacks will be further evaluated in the specific site plan review section of this report.

- H. **Additional Requirements.** All other standards and requirements of this Article must be met by site plans presented for review, including but not limited to:

1. That the proposed development conforms to all regulations of the zoning district in which it is located.

**CWA Comment:** The proposed development meets all zoning district dimensional requirements. We emphasize that while the project meets the bulk requirements of the zoning districts, the districts currently do not allow utility scale solar projects as a permitted or special use.

2. That the plan meets the specifications of Cohoctah Township or Livingston County for fire and police protection, water supply, sewage disposal or treatment, storm drainage, and other public facilities and services, and has been approved by all appropriate State and Local authorities or their approval has been assured.

**CWA Comment:** We defer further review of the topics above to their respective authorities.

3. That soils not suited to development will be protected or altered in an approved manner as determined by the Planning Commission.

**CWA Comment:** Planning Commission to determine if soils on site will be preserved/altered in an effective manner.

4. That the proposed development will not cause soil erosion or sedimentation problems.

**CWA Comment:** We defer further review of these matters to the Livingston County Drain Commission.

5. **That the proposed development properly respects floodways and/or floodplains on or in the vicinity of the subject property.**

**CWA Comment:** *We defer further review of these matters to the Michigan Department of Environment, Great Lakes, and Energy (EGLE).*

6. **That outside lighting will not adversely affect adjacent or neighboring properties or traffic on adjacent streets.**

**CWA Comment:** *The applicant has indicated they will avoid over-lighting and unnecessary lighting in areas where it is not required throughout the project. The project will not require exterior lighting within the PV array and will include permanent lighting at the project substation and operations and maintenance (O&M) building. Per section 20.07(B)(5), the location of all exterior lighting fixtures will need to be shown on plans.*

7. **That outdoor storage of garbage and refuse is contained, screened from view, and located so as not to be a nuisance to the subject property or neighboring properties.**

**CWA Comment:** *Per the applicant, "Waste and hazardous materials will be collected and stored in proper storage containers at the O&M building on-site prior to disposal. Waste that cannot be recycled will be transported to an approved landfill facility. Recyclables, such as metals, glass, plastics and paper products will be taken to certified recycling facilities. Any materials deemed hazardous will be managed according to applicable environmental regulations, with the involvement of certified hazardous waste disposal companies. The Project will require public solid waste management or municipal waste disposal services at the Project's O&M building. Any waste or debris generated during the construction of the Project will be hauled off-site and deposited in appropriate waste facilities."*

8. **That grading or filling will not destroy the character of the property or the surrounding area and will not adversely affect the adjacent or neighboring properties.**

**CWA Comment:** *The applicant has stated minor and localized site grading will occur for the installation of the solar arrays, access roads, and staging areas. As stated previously, a dedicated grading plan will be required for Township Engineer review.*

9. **That the plan meets the standards of other government agencies, where applicable, and that the approval of these agencies has been obtained or is assured.**

**CWA Comment:** *Exhibit A-4.4 outlines the various permits needed and the current status of obtaining them. If site plan approval is granted, we ask the applicant to continue providing updates as permits are obtained.*

10. **That the plan provides for proper expansion of existing public streets serving the site, where applicable.**

**CWA Comment:** *No public roads will require expansion to serve the site.*

11. That all phased developments are ordered in a logical sequence so that any individual phase will not depend in any way upon a subsequent phase for adequate access, public utility services, drainage or erosion control.

**CWA Comment:** The applicant should clarify to the Planning Commission that each stage of construction is planned in order to ensure it is completed in a timely manner. The remaining project schedule is provided below by the applicant.

Interconnection Agreement Executed	4Q 2025	Expected
Electrical Underground	3Q 2027	Expected
Discretionary Permits Secured	3Q 2026	Expected
Financing Secured	3Q 2027	Expected
EPC Contract Executed	3Q 2027	Expected
Construction Start	3Q 2027	Expected
Delivery & Installation of Main Power Transformer	2Q 2028	Expected
Energization for Interconnection	2Q 2029	Expected
Start Up Testing	2Q 2029	Expected
Commissioning & Regulatory Testing	2Q 2029	Expected
Commercial Operation Date	2Q 2029	Expected

- I. **Landscaping, Screening Requirement.** The Planning Commission may further require landscaping, fences and walls in pursuance of these objectives and same shall be provided and maintained in accord with any use to which they are appurtenant.

**CWA Comment:** The applicant has indicated that landscape screening will be installed where it is currently lacking, as well as working with adjacent property owners to install screening measures they are comfortable with. We encourage the Planning Commission to bring forward its desired screening measures for the applicant to implement. At the minimum, all proposed landscaping should meet required greenbelt and screening requirements of the zoning ordinance.

- J. **Screening Specification for Development.** The Planning Commission shall have some latitude in specifying the walls, fences, greenbelts as they apply to a phased development if the particular phase of development and construction work is far enough removed from adjacent properties to afford the screening, etc., as otherwise required.

**CWA Comment:** As mentioned above, we encourage the Planning Commission to work with the applicant to determine the best method of screening to be used throughout the project site.

- K. **Site Clearing.** Adequate assurances are received so that clearing the site of topsoil, trees and other natural features before the commencement of building operations will occur only in those areas approved for the placement of physical improvements.

**CWA Comment:** *We ask the applicant to provide any additional information to the Planning Commission regarding the clearing of resources.*

- L. **Retention of Flood and Other Bodies of Water.** The development will not substantially reduce the natural retention storage capacity of any watercourse, thereby increasing the magnitude and volume of flood at other locations.

**CWA Comment:** *A stormwater mitigation plan has been provided in exhibit A-6.4. We defer further review of flood retention to the Township engineer.*

- M. **Soil and Subsoil Conditions.** The soil and subsoil conditions are suitable for excavation, and site preparation and the drainage is designed to prevent erosion and environmentally deleterious surface runoff.

**CWA Comment:** *We defer further review of soil suitability, drainage, and additional criteria to EGLE, Livingston County Drain Commission, and any additional outside agencies.*

- N. **Preservation of Natural Features.** The development will not detrimentally affect or destroy natural features such as ponds, streams, wetlands, hillsides or wooded areas, but will preserve and incorporate such features into the development's site design.

**CWA Comment:** *The majority of the project will occur in currently open farmland. Based on the landscape plan on sheet 24 indicates only a small portion of existing woodlands will be removed. The acreage count of woodlands to be removed should be provided.*

- O. **Location of Natural Features.** The location of natural features and the characteristics of site topography have been considered in the designing and siting of all physical improvements.

**CWA Comment:** *As mentioned above, the project site has sited the majority of solar panels on open farmland.*

**Items to be Addressed:** *Planning Commission to determine if all general standards applicable to site plan review have been met.*

### SPECIFIC SITE PLAN REVIEW REQUIREMENTS

Section 13.27(C), Utility-Scale Solar Energy Systems outlines the specific site plan requirements for utility scale solar facilities locating within the Township. Our comments related to each item are listed below.

#### 3. Site Plan Application Requirements:

- a. **Contents of Site Plan.** In addition to the requirements in Article 20, the applicant must provide a boundary survey by surveyor licensed in the State of Michigan of the project and a detailed site plan draft to a scale of 1" = 200 feet with the following:
1. Location of all existing and proposed dwellings, structures, panels, equipment, electrical tie lines, transmission lines, transformers, inverters, substations, security fencing, and all other components of the Utility-Scale Solar Energy System within the participating

**property and all dwellings and/or structures within 1000 feet of the property lines of the participating property.**

***CWA Comment:*** Sheets 6-14 are shown at a scale of 1" = 200 feet depicting the proposed solar arrays and subsequent equipment throughout the site. A boundary survey by a licensed surveyor in the State of Michigan has not been provided and is required. Per section 20.07, Data indicating the total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped, and the name of the public school district serving the site has not been provided.

- 2. Depiction (to scale) of all setbacks, property lines, fences, signs, greenbelts, screening, drain tiles, easements, flood plains, bodies of water, proposed access drives, and road rights of way.**

***CWA Comment:*** Setback lines are shown; however, property lines of nearby parcels are not included. Fence locations are shown on sheets 6-14, with greenbelt/screening locations shown on sheet 24. Existing easements, wetlands, access drives, and road rights-of-way are also shown.

- 3. Indication of how and where the system will be connected to the power grid.**

***CWA Comment:*** The point of interconnection to the grid is located at the proposed ITC transmission line and substation located near the intersection of Hayner and Owosso Roads as shown on sheet 14. The Project will include an approximately 1.06-mile-long gen-tie line to the proposed ITC substation. The current gen-tie is shown to be above ground, and is required to be buried below ground.

- 4. Plan for any land clearing and grading required for the installation and operation of the system.**

***CWA Comment:*** Proposed tree clearing areas are shown on sheets 6-14. A grading plan does not appear to be included in the current plan set and will be required.

- 5. Plan for ground cover establishment and management.**

***CWA Comment:*** Sheet 28 includes seeding procedures and specifications for groundcover throughout the site.

- 6. Plan for providing a wildlife corridor that provides access for wildlife to navigate through the development.**

***CWA Comment:*** A wildlife corridor plan does not appear to be included in the current plan set. Designated corridors should be marked on plans.

- 7. Description of measures to be taken to support the flow of rainwater and/or stormwater management.**

**CWA Comment:** *A stormwater mitigation plan has been included in the current application. We defer any further review and comment to the Township Engineer and Livingston County.*

8. **Security plan detailing measures to prevent unauthorized trespass and access during the construction, operation, removal, maintenance, or repair of the Utility-Scale Solar Energy System.**

**CWA Comment:** *A formal security plan has not been included in the current plan set and should be provided.*

9. **A maintenance plan, including landscaping upkeep, regular checks, and maintenance for the equipment, and decommissioning and removal. The description shall include maintenance schedules, types of maintenance to be performed, and decommissioning and removal procedures and schedules if the Utility-Scale Solar Energy System is decommissioned. The maintenance plan must include a plan for maintaining all setback areas in the project.**

**CWA Comment:** *A dedicated maintenance plan has not been provided and should be required.*

10. **Anticipated construction schedule including timeline to completion and scope of work.**

**CWA Comment:** *A project schedule has been included previously in this report. A construction schedule including scope of work does not appear to be included. Exhibit A-3 provides a cover for the project schedule; however, no material appears to be included.*

11. **Sound modeling study including sound isolines extending from the sound sources to the property lines.**

**CWA Comment:** *A sound study has been provided which states noise levels at all property lines between the project and nonparticipating parcels do not exceed 55 decibels. Noise level contours are also provided in the report, which show 55 decibel measurements restricted to the immediate areas around the proposed inverters.*

12. **Any additional studies requested by the Planning Commission, including but not limited to the following:**

- a. **Visual Impact Assessment: A technical analysis by a third party qualified professional acceptable to the Township of the visual impacts of the proposed project, including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like (including proposed landscaping and other screening measures), a description of potential project impacts, and mitigation measures that would help to reduce the visual impacts created by the project.**

**b. Environmental Analysis:**

- i. The applicant shall have a third-party qualified professional, acceptable to the Township, conduct an analysis to identify and assess any potential impacts on the natural environment including, but not limited to, wetlands and other fragile ecosystems, historical and cultural sites, and antiquities. The applicant shall take appropriate measures to minimize, eliminate, or mitigate adverse impacts identified in the analysis.**
- ii. The applicant shall identify and evaluate the significance of any net effects or concerns that will remain after mitigation efforts. The applicant shall comply with applicable parts of the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, 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.), and Part 353 Sand Dunes Protection and Management (MCL 324.35301 et seq.).**
- c. Stormwater Study: An analysis by a third-party qualified professional acceptable to the Township studying the proposed layout of the Utility-Scale Solar Energy System and how the spacing, row separation, and slope affects stormwater infiltration, including calculations for a 100-year rain event. Percolation tests or site-specific soil information must be provided to demonstrate infiltration on-site without the use of engineered solutions.**
- d. Glare Study: An analysis by a third-party qualified professional acceptable to the Township to determine if glare from the Utility-Scale Solar Energy System will be visible from nearby residents and roadways. If required, the analysis will consider the changing position of the sun throughout the day and year and its influences on the utility-scale solar energy system.**
- e. Wildlife Impact: A wildlife impact study, including an analysis of the impact on the properties within one mile of the project.**
- f. Utility-scale solar energy systems are not permitted on property enrolled in the Farmland and Open Space Preservation Act, being in PA 116, of 1974, now codified in Part 361 of the Natural Resources and Environmental Protection Act, PA 451 of 1974, as amended.**

**CWA Comment:** *We encourage the Planning Commission to request any of the above-mentioned studies in order to make an informed determination on the project. We do note multiple properties within the project area are PA 116 enrolled. As a result, proof of terminated contracts for the parcels in questions should be provided.*

- b. **Conceptual Layout Plan.** Applicants may submit an optional conceptual layout plan for review prior to submission of a formal site plan. The conceptual site plan may be reviewed by the Planning Commission to allow for discussion and feedback.

**CWA Comment:** *We are not aware of a conceptual layout plan having been submitted at this time.*

- c. **Approvals from Other Agencies.** Final site plan approval may be granted only after the applicant receives (1) all required federal and state approvals, and (2) approval by the local fire chief, county drain commissioner, county road commission, local airport zoning authority (if applicable), county building department, and any other federal, state or local agency having jurisdiction or authority to grant permits related to the Utility-Scale Solar Energy System.

**CWA Comment:** *The applicant will need to submit proof that all applicable permits and approvals have been granted.*

4. **Application Items as Substantive Requirements.** The information, plans, documents, and other items identified as application requirements in this ordinance, including the site plan and special land use permit, are substantive requirements for obtaining approval for a Utility-Scale Solar Energy System. The Planning Commission will review the sufficiency of the application materials. If the Planning Commission determines that the substance of any application item is insufficient to protect the public health, safety, and welfare, the Planning Commission may deny approval on that basis.

**CWA Comment:** *Planning Commission to determine sufficiency of application materials.*

5. **System and Location Requirements.**

- a. **Utility-Scale Solar Energy Systems are only permitted within the Solar Energy System Overlay District.**

**CWA Comment:** *Current Plans show the project area outside the Solar Energy System Overlay District. A rezoning of the project area to the Overlay District will be required.*

- b. **Utility-Scale Solar Energy Systems must be ground mounted.**

**CWA Comment:** *Array elevations provided on sheet 30 are shown to be ground mounted.*

- c. **The ground mounting of panels must be by screw or a similar system that does not require a footing, concrete, or other permanent mounting, to minimize soil compaction. No pounding of panels posts is permitted.**

**CWA Comment:** *Post details for the proposed array fixtures have not been provided and will need to be provided to ensure no footings or concrete are proposed.*

6. **Permits.** All required county, state, and federal permits must be obtained before final site plan approval and before the Utility-Scale Solar Energy System begins operating.

**CWA Comment:** *The applicant will need to submit proof that all applicable permits and approvals have been granted.*

7. **Screening.** Greenbelt screening is required around any Utility-Scale Solar Energy System and around any equipment associated with the system to obscure, to the greatest extent possible, the Solar Energy System from any adjacent residences, as described below:

- a. The screening shall be installed to obscure the Utility Scale Solar Facility and shall contain two rows of staggered evergreen trees planted not more than twelve (12) feet apart trunk to trunk, and the two rows shall be no greater than ten (10) ft apart. The Township may consider an alternative landscape buffer as a part of the special land use approval, provided the alternative provides adequate screening.

**CWA Comment:** *A landscape plan has been provided on sheet 24, which includes areas designated with proposed landscaping, as well as the utilization of existing vegetation. The planting schedule on sheet 28 shows three (3) screening options. The options include deciduous trees twenty (20) feet apart, native shrubs six (6) feet apart, and evergreen trees fifteen (15) feet apart. The evergreen spacing will need to be reduced to twelve (12) feet, and the use of deciduous trees does not meet ordinance requirements. We are of the opinion that a universal screen meeting or exceeding ordinance requirements should be required. Landscape elevations should also be provided on the landscape plan.*

- b. Plantings shall be least eight (8) feet tall at time of planting and shall reach a height of ten (10) feet within three (3) growing seasons.

**CWA Comment:** *Notes on sheet 28 indicating compliance with the above requirement have not been provided.*

- c. The trees may be trimmed but must maintain a height of at least eighteen (18) feet.

**CWA Comment:** *A note on plans indicating compliance with the above requirement will need to be provided.*

- d. Evergreen trees shall be Norway Spruce or such alternative approved by the Township.

**CWA Comment:** *A note on plans indicating compliance with the above requirement will need to be provided.*

- e. Good husbandry techniques shall be followed with respect to vegetation, including but not limited to, proper pruning, proper fertilizing, and proper mulching, so that the vegetation will reach maturity as soon as practical and will have maximum density in foliage. Dead or diseased vegetation shall be removed and must be replanted in a manner consistent with this Section at the next appropriate planting time.

**CWA Comment:** *A note on plans indicating compliance with the above requirement will need to be provided.*

- f. **Front, side, and rear yard screening is required if the Utility Scale Solar Energy System is adjacent to a non-participating property.**

**CWA Comment:** *The project abuts front, side, and rear yards of non-participating properties and will be required.*

8. **Appearance. The exterior surface of the Utility-Scale Solar Energy System must be generally neutral in color and substantially non-reflective of light.**

**CWA Comment:** *We are of the opinion that elevations and renderings provided are of neutral colors.*

9. **Agricultural Preservation and Habitat Impact. Land clearing and clear cutting trees and other vegetation shall be limited to what is minimally necessary for installation and operation of the system and to ensure all-season access to solar resources given the topography of the land. Topsoil distributed during preparation shall be retained on site. In addition, access drives shall be designed to minimize extent of soil disturbance, water run-off, and soil compaction.**

**CWA Comment:** *The applicant should be prepared to explain how the proposed tree clearing area is the minimum necessary for the operation of the system. Notes on sheet 30 of the site plan and project narrative indicate appropriate SESC permits will be obtained prior to construction beginning, however no notes on plans indicate all disturbed soil will remain on site and should be added to sheet 30.*

10. **Lighting. Lighting of the Utility-Scale Solar Energy System must be down facing and is limited to the minimum light necessary for safe operation. Lighting shall not be more than 4 feet taller than the maximum height of any panel and in no case shall lighting be taller than 20 feet. Illumination from any lighting must not extend beyond the perimeter of the lot(s) used for the Utility-Scale Solar Energy System. The Utility-Scale Solar Energy System must not produce any glare that is visible to neighboring lots or to persons traveling on public or private roads. Flashing, intermittent, and motion lights are prohibited.**

**CWA Comment:** *Based on height requirements of the solar ordinance, the maximum height of proposed lighting can be up to fourteen (14) feet or twenty (20) feet if a deviation is granted for the height of proposed solar arrays. A dark skies plan has been included in the application, which states no exterior lighting will be located within the solar array areas. The only permanent lighting will be located at the proposed substation and O&M building. Fixture details are shown on sheet 27 of the site plan, which shows multiple accessory options including visor shielding. We are of the opinion that visor shielding fixtures should be included as a condition of approval.*

11. **Signage. Signage is not permitted except as required in this subsection and for purposes of posting information that may be necessary for electrical operations and the safety and welfare of the public. An information sign shall be posted and maintained at the entrance(s) listing the name, address, and phone number of the operator.**

**CWA Comment:** Signage details are also provided on sheet 27, which includes contact information and high voltage signs. The project narrative indicates these are the only types of signs proposed, and will be posted at all points of ingress and egress.

12. **Security Fencing.** Security fencing may be required around all electrical equipment related to the Utility-Scale Solar Energy System, including any transformers and transfer stations in the discretion of the Planning Commission and to provide for the movement of wildlife. Appropriate warning signs must be posted at safe intervals at the entrance and around the perimeter of the Utility-Scale Solar Energy System. Required fencing must be at least seven feet tall and be composed of wood post and woven farm wire fencing. The Township may allow or require a fence design to allow for the passage of wildlife upon a finding that adequate access control and visual screening will be preserved.

**CWA Comment:** Security is shown to be located around all proposed solar arrays, substation, and electrical equipment. A note should be added to plans which indicate warning signage will be placed at regular intervals around the project perimeter fencing along with all signage locations. Fencing details are provided on sheet 27, which meet ordinance requirements.

13. **Underground Transmission.** All power transmission or other lines, wires, or conduits from a Utility-Scale Solar Energy 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.

**CWA Comment:** Sheets 11, 12, and 14 show a proposed overhead transmission line running from the proposed substation to ITC switchyard, which measures at approximately 1.06 miles long. The transmission line will need to be shown as underground but can be above ground within the boundaries of the switchyard and substation.

14. **Drain Tile Inspections.** 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 construction of any part of the Utility-Scale Solar Energy System occurs. The applicant or operator must submit proof of the inspection to the Township and Livingston County Drain Commission. Any damaged or inoperable tile shall be repaired prior to construction. After the Utility-Scale Solar Energy System is operational, the owner or operator must repair any damage or failure of the drain tile within 30 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. Documentation of repairs shall be submitted to the property owner, the township, and the Livingston County Drain Commission and must indicate the location, nature, and satisfactory completion of the repairs.

**CWA Comment:** A note on plans indicating compliance with the above requirement should be included.

15. **Groundwater Analysis.** The operator of the Utility-Scale Solar Energy System must provide a groundwater analysis for all parcels within the participating properties annually during the life of the project and for five years after abandonment or decommissioning.

**CWA Comment:** A groundwater analysis does not appear to be provided.

16. **Access Routes.** Access drives are subject to the approval of the Livingston County Road Commission and the Township Planning Commission. Access drives must be adequately maintained for emergency vehicle use, even in winter.

**CWA Comment:** *We defer further review of proposed access drives to Livingston County Road Commission.*

17. **Construction.** Construction or maintenance of the Utility-Scale Solar Energy System may only occur between 7:00 a.m. and 6:00 p.m. Monday through Friday, excluding federal holidays. Any material damages to a public road located within the Township resulting from the construction, maintenance, or operation of a Utility Scale Solar Energy System shall be repaired at the Applicant's expense.

**CWA Comment:** *There does not appear to be confirmation that project construction will comply with the timing windows above. A note on the site plan cover sheet should be provided.*

18. **Fire Suppression.** The Utility-Scale Solar Energy System must include a fire suppression system that is specifically designed to immediately suppress and extinguish fires in any part of the Solar Energy System, including the panels, electrical equipment, transformers, and transfer stations. The applicant or operator must provide documentation establishing the effectiveness of the fire suppression system and the results of a third-party independent inspection acceptable to the Township of the fire suppression system.

**CWA Comment:** *A fire response plan has been provided in the current application, which includes providing "fire extinguishers and other suppression tools..." throughout the site. We defer further review of the fire response plan to the Fowlerville Area Fire Department and Howell Area Fire Authority.*

19. **Ground Cover.** The lot on which the Utility-Scale Solar Energy System is located must be covered with vegetation until decommissioning. To meet this requirement, the lot must include one or more of the following:

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

**CWA Comment:** *The project narrative indicates the project will plan pollinator plantings to achieve a score of at least 76 on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites. There is no mention of conservation partnerships, grazing, or a combination of raising crops included in the project.*

- 20. Wildlife Corridor.** Utility Scale Solar Energy Systems shall have access corridor for wildlife to navigate through the development.

**CWA Comment:** *Exhibit A-1.14 indicates the responses included in the event a wildlife corridor is discovered. However, based on the above ordinance requirement, a dedicated corridor will need to be provided/marked throughout the site to ensure wildlife can navigate the site and should be included on the site plan.*

- 21. Signs.** Signs are permitted but must comply with Article 19. The lot must include at least one sign identifying the owner and providing a 24-hour emergency contact telephone number.

**CWA Comment:** *As mentioned previously, Signage details are provided on sheet 27, which includes relevant contact information.*

- 22. Insurance.** The applicant or operator will maintain property/casualty insurance and general commercial liability insurance in an amount of at least \$10 million per occurrence. All insurance policies shall name the Township as an additional insured and shall include the indemnity provisions of C.2.o.

**CWA Comment:** *We ask the applicant to provide certificates of insurance in the amount listed above.*

- 23. Decommissioning.** If a Utility-Scale Solar Energy System is abandoned or otherwise nonoperational for a period of 90 days, the property owner or the operator must notify the Township and must remove the system within six months after the date of abandonment. The site must be filled and covered with topsoil and restored to a state compatible with the surrounding vegetation. 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 requirements of this subsection also apply to a Utility-Scale Solar Energy System that is never fully completed or operational if construction has been halted for a period of one year. Should the Applicant fail to meet its obligations to decommission the site, the Township may utilize the security being held for this purpose to enter the site and decommission in accordance with the last approved plan.

- a. The decommissioning plan shall be written to provide financial security to the Township for 125% of the cost to remove and dispose of all panels, wiring, and restoration of the land to its original conditions. The value of decommissioning shall be determined by a third-party financial consultant or engineer selected by the Township and paid for by the developer. The decommissioning financial security shall be paid in cash to the Township. Once value of decommissioning is determined, it shall be updated on a periodic basis of not less than every 2 years and additional financial security may be required on the basis of the average inflation rate of the preceding 2 years.
- b. **Continuing Obligations:** Failure to keep any required financial security in full force and effect at all times while a Utility Scale Solar Energy System exists or is in place shall constitute a material

and significant violation of the Special Land Use Permit and this Ordinance, and will subject the Utility Scale Solar Energy System Applicant, owner and operator to all remedies available to the Township, including any enforcement action, civil action, request for injunctive relief, and revocation of the Special Land Use Permit.

***CWA Comment:** A decommissioning cost estimate has been provided in exhibit A-13.1. We defer further reviews of cost estimates to the Township Engineer.*

24. **Complaint Resolution Protocol.** Applicant shall provide a Complaint Resolution protocol at time of submission of final site plan. The operator of the project or its assigns shall initially respond within 10 business days to complaints from neighboring property owners arising from and related to the operation of the Utility Scale Solar Energy System. Any resolution shall include lawful and reasonable solutions consistent with the Zoning Ordinance, which shall also be provided to the Township Zoning Administrator.

***CWA Comment:** A complaint resolution process is provided in exhibit A-1.16 of the application, indicating a four (4) business day response time, with any solution over 30 days being responded with a detailed timeline and planned actions communicated to the stakeholder.*

25. **Extraordinary Events.** If the Utility-Scale Solar Energy 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 within 24 hours. Any damaged or inoperable panels must be repaired within 30 days after discovery and the applicant or operator must submit proof of the repair to the Township. Add language to show cause for additional time.

***CWA Comment:** An emergency response plan has been provided in exhibit A-1.9. Clarification language should be added to reflect the 24 hour notification requirement.*

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

- a. Amount of electric generation;
- b. Current proof of insurance;
- c. Verification of financial security; and
- d. A summary of all complaints, complaint resolutions, and extraordinary events.
- e. Number of panels removed, replaced, repaired, or other improvements.

Additionally, a representative of the applicant or operator must appear before the Township Board at least once every three years to report on the Utility-Scale Solar Energy System and address questions or concerns from the Planning Commission.

***CWA Comment:** There does not appear any mention of providing an annual report in the current application.*

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

**CWA Comment:** *We encourage the applicant to confirm they are aware of this requirement, and to coordinate with the Township regarding site inspections.*

29. **Transferability.** A special use permit for a Utility-Scale Solar Energy System is transferable to a new owner or operator. The new owner or operator 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.

**CWA Comment:** *The applicant should be aware of this provision should a transfer of ownership occur.*

30. **Lease.** If the participating property is proposed to be leased, instead of owned, by the owner or applicant of the Utility-Scale Solar Energy Project, all property within the project boundary must be included in a recorded easement(s), lease(s), or consent agreement(s) specifying the applicable uses for the duration of the project. All necessary leases, easements, or other agreements between the utility scale solar energy owners or applicant and the property owners must be in place prior to commencing construction.

**CWA Comment:** *We ask the applicant to clarify which participating parcels have been purchased or leased. Option and easement agreements have been provided in the submitted application.*

31. **Site Plan Amendments.**

- a. Site plan amendments may be permitted pursuant to Article XX of the zoning ordinance, except the following shall not be considered a minor amendment by the Planning Commission:
1. Changes of the location of arrays, fencing, buildings, or ancillary equipment by 10 feet or more.
  2. Any increase in the height of solar panels.
- b. The Planning Commission may consider the following to be minor amendments:
1. Changes of the location of arrays, fencing, buildings, or ancillary equipment by less than 10 feet.

**CWA Comment:** *The current application provides a list of changes in exhibit A-1.6. The applicant should be aware that any changes may constitute the need for Planning Commission review and approval.*

32. **Remedies.** If an applicant or operator fails to comply with this Ordinance, the Township, in addition to any other remedy under this Ordinance, may revoke the special land use permit and site plan approval after giving the applicant or operator notice and an opportunity to be heard. 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.

**CWA Comment:** *The applicant should be aware of the above provision.*

**33. No Battery Storage. No on-site power storage, battery storage, PV Array, or device storage is permitted.**

**CWA Comment:** Page 6 of the project narrative states, “The Site Plan also includes ancillary features located on the facility site such as roads, railroads, switchyard, energy generation, storage or regulation facilities, substation, and similar facilities.” We ask the applicant to clarify that storage or regulation facilities do not include power, battery, or device storage.

**34. The applicant must certify and guarantee that the utility-scale solar energy system will comply with 47 CFR Part 15, subpart B and not produce any radio frequency interference or electrical magnetic interference at the property line of all non-participating property owners within 1,000 feet of the project.**

**CWA Comment:** The project narrative states, “The Project has been designed to not interfere with electromagnetic fields or communications signals and therefore no mitigation measures are anticipated.” Exhibit A-7, Signal Mitigation Plan does not appear to be provided in the current application.

**D. Utility-Scale Solar Energy 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 Solar Energy Systems with a nameplate capacity of 50 megawatts or more, which shall only be allowed in the Solar Energy System Overlay District by special use permit. To the extent the following provisions conflict with the provisions in subsection C above (“Utility-Scale Solar Energy Systems”), the provisions below control as to such Utility-Scale Solar Energy Systems with a nameplate capacity of 50 megawatts or more. All provisions in subsection C above that do not conflict with this subsection remain in full force and effect and shall be applicable to all Utility-Scale Solar Energy Systems regardless of nameplate capacity. The following provisions do not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and do not apply to Utility-Scale Solar Energy Systems with a nameplate capacity of less than 50 megawatts.

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

**CWA Comment:** The setback distances outlined below have been provided.

<b>Setback Description</b>	<b>Setback Distance</b>
Occupied community buildings and dwellings on nonparticipating properties	300 feet from the nearest point on the outer wall
Public road right-of-way	50 feet measured from the nearest edge of a public road right-of-way
Nonparticipating parties	50 feet measured from the nearest shared property line

- b. *Fencing.* Fencing for the Utility-Scale Solar Energy System must comply with the latest version of the National Electric Code as November 29, 2024, or as subsequently amended.

***CWA Comment:*** Page 15 of the provided narrative indicates all fencing will meet the requirements of the National Electric Code.

- c. *Height.* Solar panel components must not exceed a maximum height of 25 feet above ground when the arrays are at full tilt.

***CWA Comment:*** Solar array details provided on sheet 30 show a maximum height of fifteen (15) feet, meeting requirements.

- d. *Noise.* The Utility-Scale Solar Energy System must not generate a maximum sound in excess of 55 average hourly decibels as modeled at the nearest 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.

***CWA Comment:*** The sound report provided in the application shows maximum decibel level of 49 dBA to the outer walls of non-participating parcel structures, meeting requirements.

- e. *Lighting.* The Utility-Scale Solar Energy System must implement dark sky-friendly lighting solutions.

***CWA Comment:*** Exhibit A-11 provides lighting methods that will comply with dark sky-friendly solutions.

- f. *Environmental Regulations.* The Utility-Scale Solar Energy System must comply with applicable state or federal environmental regulations.

***CWA Comment:*** The applicant has stated throughout the project narrative that all federal and state environmental regulations will be followed.

- g. *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 Solar Energy 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.

***CWA Comment:*** The applicant has provided draft copies of a host community agreement.

## RECOMMENDATIONS

The applicant has requested the Planning Commission to review the special land use and site plan of the proposed Headland Solar project simultaneously. As you are aware, the review of the site plan is at the risk of the applicant and will only be considered upon approval of the special land use. Below, we have divided our comments on the Headland Solar special land use application and the site plan:

**Special Land Use:**

The Planning Commission should consider the following in review of the proposed large-scale solar facility:

The proposed large solar energy facility is currently not located within the newly designated Solar Energy System Overlay District, which was established to provide a suitable location for utility scale solar energy systems while still preserving the rural character and heritage of the Township. As a result, we are recommending **conditional approval** of the requested special land use, subject to the applicant receiving approval for a **rezoning of the subject property to the Solar Energy System Overlay District**, which permits such projects as a special land use, as well as receiving site plan approval.

The Planning Commission must also consider whether the proposed use meets the general standards applying to special land uses as listed in page 4 of this report, and in Article 8 of the Zoning Ordinance.

**Site Plan Review:**

Summarized below are the outstanding site plan review items mentioned throughout this report, which should be addressed to the satisfaction of the Planning Commission and Township Board. We recommend a decision on the presented site plan be tabled until the outstanding items are addressed and **after special land use approval has been granted:**

1. An operations agreement between all affected parties should be provided.
2. Provide analysis of whether adequate resources exist to respond to fire and other emergencies, a plan to provide those resources, plans for immediate cleanup, long-term monitoring, and continued mitigation efforts following an emergency.
3. Provide manufacturer information of the fire suppression system.
4. Submit proof of power purchase agreement prior to final site plan approval.
5. Provide dedicated maintenance plan.
6. Provide commitments to property owners.
7. Provide traffic study including anticipated traffic counts, peak hours of transport, and types of vehicles anticipated.
8. Provide lot coverage calculations.
9. Planning Commission to determine project compatibility with surrounding natural resources.
10. Review of essential services and stormwater management by Township Engineer.
11. Obtain LCRC approval of proposed access drives.
12. Change note 18 on sheet 30 to "Livingston County Road Commission."
13. Provide all lighting fixture locations.
14. Provide all signage locations.
15. Grading plan to be submitted to the Township Engineer.
16. provide an acreage count of total woodlands to be removed as part of the project.
17. Site circulation to be reviewed by the Township Engineer, Fowlerville Area Fire Department, and Howell Area Fire Authority.
18. Transmission lines revised to be buried underground.
19. Planning Commission to determine if soils on site will be preserved/altered in an effective manner.
20. Proof of all outside agency permits shall be submitted.
21. All proposed landscaping should meet required greenbelt and screening requirements of the zoning ordinance.

22. Be prepared to provide any additional information regarding the clearing of resources at the request of the Planning Commission.
23. Review of flood retention by the Township engineer.
24. Review of soil suitability, drainage, and additional criteria to EGLE, Livingston County Drain Commission, and any additional outside agencies.
25. Provide acreage count of woodlands to be removed.
26. Provide boundary survey by a licensed surveyor in the State of Michigan.
27. Provide data indicating the total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped, and the name of the public school district serving the site.
28. Provide callout of wildlife corridor on site plan.
29. Review of stormwater mitigation plan by the Township Engineer and Livingston County.
30. Provide security plan.
31. Provide maintenance plan.
32. Provide anticipated site construction schedule.
33. Planning Commission to determine if additional studies are needed.
34. Provide proof of terminated contracts for PA 116 enrolled properties within project boundary.
35. Provide post details for proposed array fixtures.
36. Provide Landscape screen elevations.
37. Provide notes on landscape plan indicating compliance with tree planting height, species, and vegetation planting practices.
38. The applicant should be prepared to explain how the proposed tree clearing area is the minimum necessary for the operation of the system.
39. Provide visor shielding with proposed light fixtures.
40. Planning Commission to consider whether landscaping around inverters should be required.
41. Provide groundwater analysis.
42. Review of proposed access drives by Livingston County Road Commission.
43. Provide note indicating compliance with construction timing requirements.
44. Review of fire response plan by Fowlerville Area Fire Department and Howell Area Fire Authority.
45. Provide certificates of insurance in the amount listed above.
46. Review of cost estimates by the Township Engineer.
47. Confirm annual reporting to the Township.
48. Clarify which participating parcels have been purchased or leased.
49. Clarify that storage or regulation facilities do not include power, battery, or device storage.
50. Exhibit A-7, Signal Mitigation Plan does not appear to be provided in the current application.



---

**CARLISLE/WORTMAN ASSOC., INC.**  
John L. Enos, AICP  
Vice-President

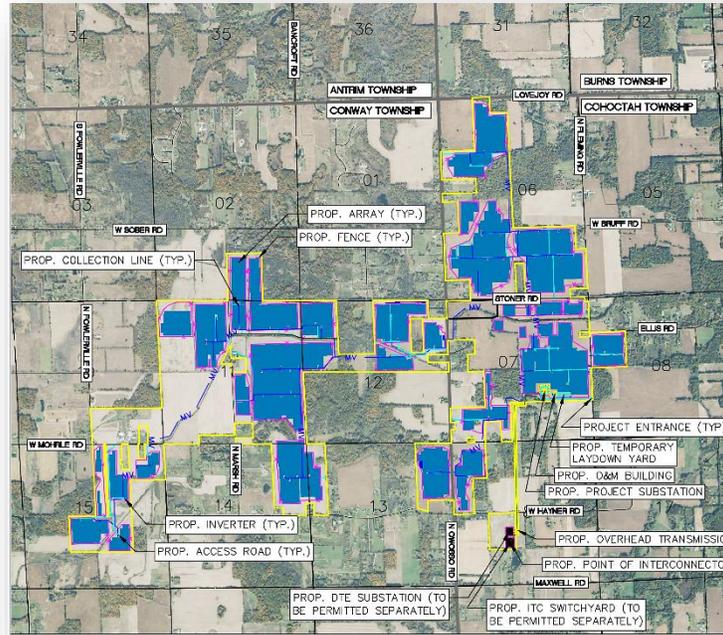


---

**CARLISLE/WORTMAN ASSOC., INC.**  
Joe Pezzotti  
Community Planner

# EXHIBIT E

# HEADLAND SOLAR PROJECT REVIEW REPORT



Prepared for:  
Cohoctah Township  
Supervisor: Mark Fosdick  
10518 Antcliff Road  
Fowlerville, MI 48836



Prepared By:  
Spicer Group, Inc.  
125 Helle Blvd., Suite 2  
Dundee, Michigan 48131  
(734) 823-3308

DATE OF REPORT: AUGUST 6, 2025

## TABLE OF CONTENTS

I.	<b>INTRODUCTION</b> -----	1
II.	<b>CONCLUSIONS AND RECOMMENDATIONS</b> -----	1
III.	<b>PROJECT SITE PLAN</b> -----	4
IV.	<b>EXHIBIT A-1.7 SOUND REPORT AND MONITORING PROTOCOL</b> -----	7
V.	<b>EXHIBIT A-1.10 FIRE RESPONSE PLAN</b> -----	9
VI.	<b>EXHIBIT A-6.1 SOIL AND ECONOMIC SURVEY REPORT</b> -----	12
VII.	<b>EXHIBIT A-6.2 ENVIROMENTAL COMPLIANCE REPORT</b> -----	14
VIII.	<b>EXHIBIT A-6.3 PERMIT LIST AND STATUS</b> -----	20
IX.	<b>EXHIBIT A-6.4 STORMWATER MITIGATION PLAN</b> -----	23

## **I. INTRODUCTION**

The Headland Solar Project is a proposed 220-megawatt (MW) utility-scale solar initiative by Headland Solar, LLC (Headland) developed by Ranger Power LLC. This project is situated on 2,415 acres in Cohoctah and Conway Townships, located in Livingston County, Michigan. Headland has engaged Atwell, LLC (Atwell) to prepare Exhibits A-1.1 through A-16 for the project's application to the Michigan Public Service Commission (MPSC) and to develop exhibits that align with the ordinances of the applicable townships.

Cohoctah Township has contracted Spicer Group, Inc. to evaluate the submitted exhibits and provide a comprehensive review of the following documents:

- Exhibit A-1.1 – Planned Facilities/Project Site Plan
- Exhibit A-1.7 – Sound Report and Monitoring Protocol
- Exhibit A-1.10 – Fire Response Plan
- Exhibit A-6.1 – Soil and Economic Survey Report
- Exhibit A-6.2 – Environmental Compliance
- Exhibit A-6.3 – Permit List and Status
- Exhibit A-6.4 – Stormwater Mitigation Plan

The purpose of this report is to assist the Township in reviewing the project, identifying any elements that do not comply with the Township's ordinances, and providing recommendations to the Planning Commission to request corrections from Atwell and the Ranger Power team. A summary of the review is provided in the conclusions and recommendations section below. Detailed results and conclusions for specific exhibits evaluated by Spicer Group are available in their corresponding sections below.

## **II. CONCLUSIONS AND RECOMMENDATIONS**

It is the opinion of Spicer Group, reviewing on behalf of Cohoctah Township, that the Headland Solar Project has not demonstrated full compliance with the Cohoctah Township Zoning Ordinance (Zoning Ordinance) The exhibits related to the Headland Solar Project, were created to meet the standards set by the Michigan Public Service Commission. Below is a

summary of the key components from the reviewed application and exhibits that have yet to meet the standards outlined by the township's ordinances, as identified above

#### Exhibit A-1.1 – Planned Facilities/Project Site Plan

Section 20.07 of the Zoning Ordinance requires descriptive and statistical data such as project areas percentage breakdowns, and the exhibit does not show all the required information as described by the preliminary site plan requirements. Due to this, we recommend requesting corrected site plans that address the missing elements listed in Section III – Project Site Plan.

#### Exhibit A-1.7 – Sound Report and Monitoring Protocol

Amendment No. 2024-02 of the Zoning Ordinance requires the maximum sound produced by the project to be below 55 dBA measured from the nearest outer wall of the nearest dwelling on nonparticipating property. The provided exhibit is in compliance with the applicable Township ordinances.

#### Exhibit A-1.10 – Fire Response Plan

Section 20.09 of the Zoning Ordinance requires that the plan meet the specifications of Cohoctah Township or Livingston County for fire and police protection. Additionally, the plan must be approved by all appropriate State and Local authorities, or if their approval has been assured in conjunction with Sec. 10-20, where the township has adopted the 2009 edition of the International Fire Code into its code of general ordinances. The submitted information is not in compliance with Section 404.3.2 of the International Fire Code, 2009 Edition. We recommend requesting a corrected exhibit that includes the missing elements listed in Section V – Exhibit A-1.10 Fire Response Plan.

#### Exhibit A-6.1 – Soil and Economic Survey Report

Section 17.07 of the Zoning Ordinance requires data relating to the physical development and extent of disruption to the site and indicates a number of descriptive items that may be required by the Planning Commission. While it is unclear what additional information may have been requested, the provided exhibit details soil properties, land use and economic

qualities with delineated soil type boundaries for the project area. We recommend verifying if additional information was requested by the Planning Commission, as detailed in the ordinance, has been supplied. If no additional information was requested, the exhibit meets the Township requirements.

#### Exhibit A-6.2 – Environmental Compliance

Section 17.07 of the Zoning Ordinance requires evidence that the cutting and removal of trees and native vegetation is performed to the classifications and standards of removing only dead or dying trees, cut in a manner to avoid erosion, and selectively cut to remove less than 40 percent of trees on the property without consultation of a state forester. The provided exhibit is not in compliance with the Township’s ordinance as it does not contain estimated percentages of removed trees and native vegetation and instead states approval from the United States Fish and Wildlife Service (USFWS) will be obtained prior to the commencement of tree clearing. We recommend requesting a corrected exhibit that indicates the estimated percentage of removed trees and foliage. The detailed evaluation of this requirement is found in Section VII – Exhibit A-6.2 Environmental Compliance Report.

#### Exhibit A-6.3 – Permit List and Status

Section 13.02 of the Zoning Ordinance requires a special use permit to be issued by the Township Planning Commission after reviewing project safeguards, design, and operational procedures. The provided exhibit outlines the applicant’s intent and timeline to obtain all required local and state permits. We recommend requesting revised versions of the incomplete exhibits to ensure a complete submittal to the Township. The detailed evaluation of the outstanding permits is listed in Section VIII – Permit List and Status

#### Exhibit A-6.4 – Stormwater Mitigation Plan

Section 20.07 of the Zoning Ordinance requires the location and size of all existing and proposed surface water drainage features and changes that affect the drains be shown, as well as identification of any floodplain within the site or adjacent. The data provided should include percentages of pervious and impervious surfaces and the means to control stormwater flow. The provided exhibit does not meet the Township ordinance as

dimensions of structures are not shown or percentages relating to impervious surfaces. Revised exhibits should be requested to address these omissions, along with a supplemental report detailing the design of the basins, outlet structures, and best management practices to be used in the project. This information is necessary to determine whether the proposed measures adequately mitigate the additional stormwater generated by the development.

### **III. PROJECT SITE PLAN**

#### ***Zoning Ordinance***

- *Sec. 20.05. Site plan approval*
- *Sec. 20.07. Preliminary site plan requirements*
- *Sec. 20.08. Final site plan requirements*
- *Sec. 20.09. Criteria for site plan review*
- *Sec. 21.04 Zoning permit*

#### ***Background***

The Headland Solar project is proposed to be constructed within Livingston County, Michigan, and is located in Cohoctah and Conway Townships. The project is designed to produce a total capacity of 220 MW of power generated by photovoltaic panels situated on 2,415 acres. The proposed site plan highlights the following major components: solar arrays, inverters, collection lines, proposed haul roads, construction staging areas, proposed site substation, project setback boundaries, proposed fencing, water quality basins, and vegetative screenings. The site plan also includes existing municipal and transportation features, topography and watercourses, and protected wetlands and marshes. The Township boundary between Cohoctah and Conway Townships is depicted as N Owosso Road on the vicinity map. Below is a specific summary detailing the proposed developments within the Cohoctah Township.

The eastern side of the project is located in sections six, seven, and sixteen of Cohoctah Township and will provide site access to the project from North Fleming Road. Proposed work within the Township will include the construction of the solar arrays and proposed DTE substation, ITC switchyard, operation and maintenance building, and connection point to the existing electrical grid. Additionally, 29 inverters are intended to be installed with the

capacity to provide 107 MW of power generated by photovoltaic panels situated on roughly 572 acres, and approximately 27,000 ft of gravel access road are proposed to be constructed. Of the 47 participating parcels, 19 reside in Cohoctah Township with five (5) of the parcels being used for collection and transmission purposes, one parcel for the existing electrical grid tie-in point, and the remaining 13 parcels containing panel arrays.

Atwell was contracted by Ranger Power to create a preliminary site plan for the Headland Solar project. The preliminary site plan was completed by Atwell on April 21, 2025. An initial review of the preliminary site plan was completed by the Cohoctah Township Zoning Administrator on May 30, 2025, and detailed elements that were missing from the submitted site plan. A review of the revised site plan and associated application materials was completed by Spicer Group to assess compliance with the Cohoctah Township Zoning Ordinance. Findings are summarized in Table-1 below:

**Table 1: Site Plan Evaluation Summary**

<b>Preliminary Site Plan Requirements:</b>	<b>Included in Site Plan?</b>	<b>Notes:</b>
Date, North Arrow and Scale	Yes	None
Statistical Data	Partially	Site plan does not appear to include data relating to percentage of area being developed, for area occupied by structures, and percent undeveloped
Location and Height of Existing and Proposed Structures	Partially	Site plan does not appear to include dimensions for the proposed O&M building, nor for the proposed project substation.
Property Lines	Yes	None
Location and Dimensions; Existing and Proposed Drives, Sidewalks, etc.	Partially	Site plan does not appear to provide dimensions for proposed and existing driveways and sidewalks
Vehicular Traffic and Pedestrian Circulation	Yes	None

<b>Preliminary Site Plan Requirements:</b>	<b>Included in Site Plan?</b>	<b>Notes:</b>
Size and Location of Existing and Proposed Utilities	No	Site plan does not appear to include any connections to public utilities by the proposed O&M building. Overhead electrical lines are missing from the Existing Conditions sheet.
Location Map	Yes	None
Drainage Facilities	Partially	Site plan does not include an impervious surface percentage for the project area. Site plan does not include stormwater management plan with sizes for proposed water quality basins or their outlet specifications. Site plan does not include determination of an increase in runoff due to development on the site and how said runoff will be accounted for.
Contour Intervals	Partially	Site plan does not appear to include two-foot contour intervals referenced to USGS datum
Project Detail and Specific Use	Yes	None
Undisturbed Areas	Yes	None
Registered Designer Required	No	Site plan does not appear to include the stamp or signature of a Professional Engineer licensed in the State of Michigan.
Traffic Impact	No	Site plan does not include a traffic impact assessment or provide a rationale for why traffic impact would not be required for the site.

*Conclusions*

Based on our review, the following elements of the Cohoctah Township site plan ordinance are not met:

- Incomplete statistical data relating to percentage of area being developed, for area occupied by structures, and percent undeveloped.
- Missing the name of the public school district serving the site.

- Incomplete location and height information for proposed and existing structures.
- Incomplete location and dimension information for proposed and existing driveways, sidewalks, etc.
- Incomplete location information for existing and proposed landscaping.
- Missing size and locations of existing and proposed utilities.
- Incomplete drainage facility information.
- Missing two-foot contour intervals referenced to USGS datum.
- Missing registered designer signature and/or seal.
- Missing traffic impact assessment.

#### **IV. EXHIBIT A-1.7 SOUND REPORT AND MONITORING PROTOCOL**

##### ***Zoning Ordinance, Amendment No. 2024-02***

- *Subsection D Utility-Scale Solar Energy Systems under PA 233. d. Noise*

##### *Background*

Hankard Environmental conducted a sound study using SoundPLAN software, version 9.1. The SoundPLAN model was used to predict sound from the operation of the proposed solar park at the property line and at the nearest noise-sensitive areas. The sound study measured the sound level in A-weighted decibels (dBA). An A-weighted scale emphasizes sounds in middle frequencies (where the human ear is most sensitive) and de-emphasizes sounds in the low and high frequencies (where the human ear is less sensitive). The exceedance sound level is the sound level exceeded during “x” percent of the sampling period and is also referred to as a statistical sound level. For instance, the report describes L<sub>10</sub> as the sound level that is exceeded 10% of the time, L<sub>50</sub> as the sound level that is exceeded 50% of the time, L<sub>90</sub> as the sound level that is exceeded 90% of the time, and L<sub>eq</sub> as the arithmetic average of varying sound for the duration of the measurement period.

##### *Results*

The SoundPLAN model accounts for air absorption, terrain, ground absorption, reflections, and shielding for each piece of sound emitting equipment and predicts sound pressure levels. Please see the table below for a summary of the inputs used in the model.

**Table 2: Sound Model Summary**

<b>Model Input</b>	<b>Parameter Value</b>
Ground Absorption	0.5
Number of Reflections	2
Receptor Height	13 feet above ground level
Temperature	10 °C
Barometric Pressure	1013 mbar
Humidity	70%

The ground absorption was assumed to be 0.5 (0.0 for a hard ground and 1.0 for a porous ground) to yield conservative results. The atmospheric conditions were also assumed to be cold and humid, resulting in a generally lower estimate of atmospheric attenuation. The model assumes that each piece of equipment propagates sound in all directions at all times. Refractions from physical structures and the terrain were also taken into consideration. Terrain immediately surrounding the project is relatively flat, consisting primarily of open fields, farmland, and some wooded areas and were not examined in the model. There are 62 Sungrow 3600UD inverter units for this site. There is one 250 megavolt-ampere primary step-up transformer at the project substation. A single inverter and auxiliary transformer would emit an average sound power level of 96 dBA at 8 feet and 105 dBA at 10 feet from all sides, respectively. One-third octave band sound level data for the inverter units was not available at the time of the report. Since the tonality of the inverters cannot be assessed without one-third octave band data, they were assumed to emit noise with tonal characteristics. Additionally, noise measurement data from transformers have often shown tonal characteristics. As a result, a 5 dBA tonal penalty was added to all sound power levels.

Noise levels were predicted at 271 noise-sensitive receptors located within one-half mile of the site, equivalent to the 269 nonparticipating residences and the two participating residences. With the 6 dBA addition to free-field noise levels to account for pressure

doubling at external facades and the 5 dBA addition to source sound power for tonal sources, the model predicted sound would not exceed 55 dBA for any of the 271 receptors.

### *Conclusions*

The sound report conducted by Hankard Environmental evaluated whether sound levels emitted from the proposed solar park would exceed 55 dBA. Each sound receiver in the model recorded sound levels equal to or less than 55 dBA, and therefore would be in compliance with the Zoning Ordinance.

## **V. EXHIBIT A-1.10 FIRE RESPONSE PLAN**

### ***Zoning Ordinance, Article II – Fire Prevention Code***

- *Sec. 10-20 Adoption of International Fire Code*

### ***Zoning Ordinance, Article XX – Site Plan Review Procedures***

- *Sec. 20.09 Criteria for Site Plan Review*

### ***International Fire Code, 2009 Edition***

- *Sec. 404.3.1 – Fire Safety Plans*

### *Background*

Atwell was contracted by Ranger Power to create a Fire Response Plan for the Headland Solar Project located in Cohoctah and Conway Townships, in Livingston County, Michigan. Cohoctah Township uses the International Fire Code, 2009 Edition, for its township fire ordinance. The 2009 edition of the IFC does not include specific ordinances relating to photovoltaic systems but does have ordinances relating to fire safety plans. The results below are based on section 404.3.2 of the International Fire Code, 2009 Edition.

**Table 3: International Fire Code Evaluation**

<b>Fire Safety Plan Requirements:</b>	<b>Included?</b>	<b>Notes:</b>
The procedure for reporting a fire or other emergency.	Yes	Emergency reporting procedure is included in the application provided by Atwell.
The life safety strategy and procedures for notifying, relocating, or evacuating occupants, including occupants who need assistance.	No	The project will not act as housing and therefore will not have occupants.
Site plans indicating the following:  The occupancy assembly point. The locations of fire hydrants.  The normal routes of fire department vehicle access	No	Not included as part of the application provided by Atwell and does not appear to present in the site plan.
Floor plans identifying the locations of the following:  Exits.  Primary evacuation routes.  Secondary evacuation routes.  Accessible egress routes.  Areas of refuge.  Exterior areas for assisted rescue.  Manual fire alarm boxes.  Portable fire extinguishers.  Occupant-use hose stations.  Fire alarm annunciators and controls.	No	No floor plans were included as part of the application provided by Atwell.

<b>Fire Safety Plan Requirements:</b>	<b>Included?</b>	<b>Notes:</b>
A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.	No	A list of major fire hazards was not included as part of the application provided by Atwell.
Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.	No	Emergency and non-emergency contact personnel were included in the application provided by Atwell but application is lacking identification of persons responsible for day-to-day management and fire prevention.
Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.	No	Risk mitigation techniques such as vegetation management are listed in the application provided by Atwell, but specific persons responsible for such techniques are not listed.

*Conclusion*

Based on a review of the Fire Response Plan created by Atwell for the Headlands Solar project, the following portions of Section 404.3.1 of the International Fire Code, 2009 Edition, are not met:

- Life Safety Strategy
- Site Plan Requirements
- Floor Plans
- List of Major Fire Hazards
- Identification of Responsible Personnel

**VI. EXHIBIT A-6.1 SOIL AND ECONOMIC SURVEY REPORT**

***Zoning Ordinance, Article XVII – Environmental Conservation Provisions***

- *Sec. 17.07 – Environmentally sensitive areas.*

*Background*

The submitted report, created by Atwell, provides pertinent details related to the soil, land use and economic qualities for the proposed Headland Solar site and Livingston County as a whole. Soil surveys are used to gather specific information on soil types and properties within a delineated area to determine their use and limitations. From there, soils are mapped according to Major Land Resource Areas (MLRAs) and are classified taxonomically based on defined characteristics. These classifications are a key component in the design processes relating to soil structure, structural stress analysis and hydrologic surface runoff flow.

*Results*

The submitted Exhibit A-6.1- Soil and Economic Survey provides a comprehensive custom soil report detailing the soil class description, typical properties and qualities, and interpretive groups for the project site, which is referenced in the report as Area of Interest (AOI). Depicted below in the summary table is the five most representative soil classes of the project site making up roughly 50% of the area of interest. The remaining 50% of the site is made up of various other soil types in small quantities.

**Table 4: Soil and Economic Survey Summary Table**

<b>Map Unit Symbol</b>	<b>Map unit Name</b>	<b>Acres in AOI</b>	<b>Percent of AOI</b>
Cr	Colwood fine sandy loam	718.7	14.10%
MwB	Minoa-Thetford complex, 0 to 4 percent slopes	716.8	14.10%
Lc	Lamson fine sandy loam	426.8	8.40%
CvraaB	Conover loam, 0 to 4 percent slopes	326.6	6.40%

<b>Map Unit Symbol</b>	<b>Map unit Name</b>	<b>Acres in AOI</b>	<b>Percent of AOI</b>
MoB	Wawasee loam, 2 to 6 percent slopes	303.6	6.00%

Cr – Colwood fine sandy loam is generally suitable for site development and is classified as prime farmland when properly drained. In general, this soil class offers good workability and moderate drainage, however in this location its minimal slopes and high-water table create frequent ponding and poor natural drainage more suitable for wetlands ecosystems.

MwB – Minoa-Thetford complex is a composite of 60% Minoa soils and 40% Thetford soils with sandy and loamy properties resulting in excellent runoff infiltration until the soil becomes saturated. Generally, these soils are classified as farmland with a somewhat poor drainage rating requiring engineered drainage systems but offer many benefits for site development due to unrestricted profile of this soil type nature.

Lc – Lamson fine sand loam is very similar to the Colwood sandy loam, where its soil properties offer high moisture retention due to being a poorly drained soil and can be classified as prime farmland when properly drained. The hydric nature of this soil and minimal slopes makes this location ideal for wetland ecosystems. The sandy loam soil is favored for site development due to its workability and ease of plant growth; however, the frequent ponding will require drainage infrastructure for the project’s construction.

CyraaB – Conover loam is a composite of loam and clay loam is a poorly drained soil that can have moderate surface runoff and is classified as prime farmland when drained. From the soil survey a dense layer between 3 and 7 foot that can restrict root penetration and water movement is present at this location, facilitating the need for drainage improvements and stormwater mitigation if this location is to be implemented for farming or site development.

MoB – Wawasee loam is an ideal soil for agricultural and site development due to its deep-water table, good soil structure and well drained nature. It is comprised of loam and clay loam making it versatile soil and very workable nature offers for a range of uses. While this soil has a medium runoff potential its high drainage properties, moisture retention and steeper slopes eliminate the risk of ponding or flooding, meeting the classification of prime farmland.

### *Conclusion*

The main soil groups located within the project area are generally loamy-type soils with minor variances in drainage and soil structure. While most are classified as prime farmland when drained, many, like Colwood, Lamson, and Conover, have poor natural drainage and frequent ponding, requiring engineered drainage solutions and stormwater mitigation. Minoa-Thetford soils offer good infiltration until soil saturation, while Wawasee loam stands out as well-drained and ideal for development. With proper site preparation and hydrologic design, the current project location appears to be suitable for the proposed Headland Solar project construction.

## **VII. EXHIBIT A-6.2 ENVIRONMENTAL COMPLIANCE REPORT**

### ***Zoning Ordinance, Article XVII – Environmental Conservation Provisions***

- *Sec. 17.02 – Natural Environment.*
- *Sec. 17.04 – Lakes, Ponds, Rivers, Streams, Watercourses and Drainageways.*
- *Sec. 17.06 – Wetlands.*
- *Sec. 17.07 – Environmentally Sensitive Areas.*

### ***Public Act No. 451 of 1994 (MCL 324), the Natural Resources and Environmental Protection Act***

- *Sec. 30101-30113 – Inland Lakes and Streams.*
- *Sec. 30301-30328 – Wetlands Protection.*
- *Sec. 36104e – Solar facility; permitted use; development rights agreement; tax credit; definitions.*
- *Sec. 36501-36507 – Endangered Species Protection.*

### *Background*

Atwell was contracted by Headland to conduct an environmental compliance report of the Headland Solar Project area. The environmental compliance report was conducted through desktop research and field reconnaissance. Evaluations were completed for the site and a 1,000-foot buffer around the site to determine potential impacts on air quality, sound and noise, wildlife, water resources, and cultural resources within the project area.

Data acquisition was conducted through publicly available information from a variety of sources including federal, state, and local agencies; Geographic Information System (GIS) databases; and literature review.

Additional data that was reviewed included Threatened and Endangered Species (TES) and designated critical habitats, cultural resources, geology/soils, wetlands, waterways, flood zones, land uses, and other notable encumbrances. Atwell also reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) and Michigan Natural Features Inventory database (MNFI) to verify if the Project Area contained habitat suitable for threatened and endangered species.

The Environmental Conservation Provisions of Cohoctah Township ordinance states “It is the general requirement of this Article to conserve and wisely use in the most careful and well-planned manner possible in accordance with the provisions of Public Act No. 451 of 1994 (MCL 324.101 et seq.), the Natural Resources and Environmental Protection Act” (Sec 17.02 – Natural Environment, Cohoctah Township Zoning Ordinance). Therefore, the Environmental Compliance Report for the Headlands Solar project was evaluated based on both Cohoctah Township ordinance and Michigan state law.

It is unclear whether the Project Area has been designated as an environmentally sensitive area by the Township Board, as is required by Sec. 17.07.A of the Zoning Ordinance. For the purposes of this review, it has been assumed that the Project Area is an environmentally sensitive area due to the possible presence of multiple state and federally recognized TES and the possible presence of bald eagles.

**Table 5: Environmental Provisions Summary**

<b>Cohoctah Township Environmental Conservation Provisions:</b>	<b>Included Report?</b>	<b>Comments:</b>
<p>The applicant shall provide written evidence that the proposed development of the property will conform to the provisions of such Soil Erosion and Sedimentation Control Ordinance as may be in effect in the County.</p>	<p>Incomplete</p>	<p>The report mentions obtaining a Soil Erosion and Sedimentation Control permit from Livingston County prior to construction but does not specify practices that will be taken to ensure compliance.</p>
<p>The applicant shall provide written evidence that a sewage treatment or disposal system has been approved by the Livingston County Health Department and/or the Michigan Department of Environmental Quality, whichever has jurisdiction, and is in conformance with any additional provisions set forth in this Ordinance pertaining to setbacks from water bodies, height above water level, etc. and any other applicable State or Federal law.</p>	<p>Likely Does Not Apply</p>	<p>The report states that no hazardous waste, liquid or solid, will be produced by the project.</p>

<b>Cohoctah Township Environmental Conservation Provisions:</b>	<b>Included in Report?</b>	<b>Comments:</b>
<p>The applicant shall provide evidence that the cutting and removing of trees and other native vegetation will be performed according to the following standards:</p> <p>Clearcutting of woodlands and the removal of shrubbery and undergrowth shall be restricted to removal of dead, diseased or dying trees.</p> <p>Selective cutting which removes not more than 40 percent of the trees and which leaves a well-distributed stand of tree foliage shall be permitted.</p> <p>More than 40 percent of the tree coverage may be removed only as such action is recommended by a State Forester, or a private forester registered by the State and approved by the Planning Commission.</p> <p>Cutting shall be done in such a manner as to avoid erosion, to preserve rare species of trees or greenery, to preserve scenic qualities, and to preserve desirable screening.</p>	Unclear	It is unclear the exact percentage of trees proposed to be removed from the site.
<p>In all zoning districts no river, stream, watercourse or drainageway, whether partly filled with water or dry in certain seasons, shall be obstructed or altered in any way at any time by any person, except when done in conformance with State and Federal laws, regulations and standards.</p>	Does Not Apply	Based on the current site plan, no alterations to any river, stream, watercourse or drainageway is proposed as part of the project.

**Wetlands:**

Based on a review of Sec. 324.30305 of MCL 324, solar facilities are not an exempt activity, and a Part 303 permit will be required for the Headland Solar project due to the presence of wetlands within the site and the anticipated impact noted by Atwell in the Environmental Compliance Report. Atwell states that permanent wetland loss as a result of the project will be limited to less than one (1) total acre. Atwell performed desktop reviews of natural features and followed up with on-site wetland delineations on the site in July-August 2022, October 2024, and November 2024. The purpose of the on-site wetland delineation was to confirm the presence of mapped features within the site. Water resources, such as floodplains, wetlands, and watercourses (streams) identified within the 1,000-foot buffer of the Site were collected from public desktop data and have not been field verified by Atwell at the time of their report. A total of 42 wetlands were mapped by Atwell within the Project Area which included freshwater emergent (PEM), scrub-shrub (PSS), forested (PFO) and open water (PUB) wetland communities using the US Fish and Wildlife Service (USFWS) National Wetlands Inventory maps. It is unclear how many of the wetlands are regulated by EGLE.

**Inland Lakes and Streams:**

Based on a review of Sec. 324.30102 of MCL 324, solar facilities are not listed as an operation prohibited without a permit. The Conway Cohoctah Union Drain runs through the center of the site; however, no alterations or obstructions are proposed as part of the project based on the current site plan. Due to the presence of the Conway Cohoctah Union Drain, as well as other inland lakes and streams within the Project Area, a Part 301 permit will be required for the project. Three (3) waterbodies were mapped within 1,000 feet of the site and sixteen watercourses were mapped within the site. None of the watercourses mapped on site have been mapped as a Michigan trout or salmon regulated stream. Based on desktop drainage review performed by Atwell, two (2) watercourses within the site and the 1,000-foot buffer have upstream drainage areas larger than two (2) square miles, indicating the potential for the site to contain state regulated floodplains under Part 31 of MCL 324. Atwell states that a floodplain evaluation request has been sent to EGLE and at the publishing of their report a response had not been received.

**Threatened and Endangered Species:**

Atwell utilized the USFWS IPaC system to identify any federally listed Threatened and Endangered Species and critical habitat within the Project Area. Atwell identified four (4) special status species potentially occurring within the Project Area. Atwell also utilized the Michigan Natural Features Inventory (MNFI) tool to identify any state TES. The MNFI identified zero (0) state-listed TES within the Project Area.

**Eastern Massasauga Rattlesnake (EMR) (Sistrurus Catenatus)**

*Status:* Federally and state threatened.

*Habitat Requirements:* Shallow wetlands and surrounding upland areas.

*MNFI Summary:* No documented occurrences within the Project Area.

*Conservation Measures:* None.

*Atwell Notes:* The Project Area does not contain USFWS Tier 1 (areas known to be occupied or highly likely) or Tier 2 (areas with high potential to be occupied) EMR habitat or potentially suitable habitat or preferred microhabitat characteristics for this species.

**Eastern Prairie Fringed Orchid (Platanthera Leucophaea)**

*Status:* Federally threatened and state endangered.

*Habitat Requirements:* Wet prairies and bogs, including degraded wet prairie habitats.

*MNFI Summary:* No documented occurrences within the Project Area.

*Conservation Measures:* None.

*Atwell Notes:* The Project Area does not contain suitable habitat.

**Indiana Bat (Myotis Sodalis)**

*Status:* Federally and state endangered.

*Habitat Requirements:* Forested riparian corridors and woodlots within a few miles of small to medium streams in summer.

*MNFI Summary:* No documented occurrences within the Project Area, however, the USFWS Bat Habitat Suitability Model indicates that approximately 877 acres of potentially suitable habitat is present within forest areas of the site.

*Conservation Measures:* In project areas where tree clearing is proposed, the project will follow USFWS recommended best management practices (BMPs).

*Atwell Notes:* The Project Area has moderate potential to contain suitable habitat. BMPs will be used in the minimal areas where tree clearing is proposed.

**Northern Long-Eared Bat (Myotis Septentrionalis)**

*Status:* Federally endangered and state threatened.

*Habitat Requirements:* Upland forest in summer; caves and mines as hibernacula in winter.

*MNFI Summary:* No documented occurrences within the Project Area, however, the USFWS Bat Habitat Suitability Model indicates that approximately 877 acres of potentially suitable habitat is present within forest areas of the site.

*Conservation Measures:* In project areas where tree clearing is proposed, the project will follow USFWS recommended best management practices (BMPs).

*Atwell Notes:* The Project Area has moderate potential to contain suitable habitat. BMPs will be used in the minimal areas where tree clearing is proposed.

In addition to the above listed species, the Bald Eagle (*Haliaeetus Leucocephalus*) habitat range overlaps with the Project Area, but an on-site investigation did not reveal any nests within the Project Area. Atwell claims the site and surrounding area lack suitable fishing or nesting habitat for the bald eagle. Atwell states that observing any bald eagle nests before construction will result in a 660-foot buffer as recommended by USFWS. IPaC results noted numerous birds of particular concern because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in the project location. Atwell performed on-site assessments and desktop reviews, and found it is unlikely that any impact to the migratory birds will take place with proper siting of the Project and compliance with USFWS BMPs.

The environmental compliance report prepared by Atwell lacks mention of wildlife corridors.

#### *Conclusion*

Based on a review of the Environmental Compliance Report created by Atwell, the following portions of the Cohoctah Township Zoning Ordinance and Public Act 451 of 1994 (MCL 324) are not met:

- Incomplete evidence of compliance with Livingston County Soil Erosion and Sedimentation Control Ordinance.
- Unclear data regarding tree removal percentage.

Based on a review of the Environmental Compliance Report created by Atwell, the following permits will be required under State or Township Ordinance:

- Part 303 Wetland Permit required
- Part 301 Inland Lakes and Streams Permit required

The environmental compliance report does not mention wildlife corridors.

### **VIII. EXHIBIT A-6.3 PERMIT LIST AND STATUS**

#### ***Zoning Ordinance, Article XIII – Special Uses***

- *Sec. 13.02. Authority to grant permits.*
- *Sec. 13.03. – Application and fees.*
- *Sec. 13.04. – Data, exhibits and information required in applications.*

- Sec. 13.06. – Required standards and finding for making determinations.
- Sec. 13.27. Solar farm.

**Zoning Ordinance, Article XX – Site Plan Review Procedures**

- Sec. 20.07. Preliminary site plan requirements
- Sec. 20.08. Final site plan requirements

**Public Act No. 451 of 1994 (MCL 324), the Natural Resources and Environmental Protection Act**

- Sec. 30101-30113 – Inland Lakes and Streams.
- Sec. 30301-30328 – Wetlands Protection.

*Background*

Atwell has compiled a comprehensive list of the permits required for the Headland Solar project. Utility-scale solar projects in Cohoctah Township are required to receive a special use permit before being approved. The project must also gain permits from the Livingston County Road Commission and Livingston County Drain Commission. Due to the environmental properties of the project area, Michigan Department of Environment, Great Lakes, and Energy permits are required as well. Finally, utility crossing permits are required from DTE, Michigan Bell Telephone Company, and Consumers Energy Company for the proposed collection lines that will run throughout the site.

**Table 6: Permits Required**

<b>Subject</b>	<b>Responsible Agency</b>	<b>Expected Date of Application Submission</b>	<b>Expected Date of Permit Issuance</b>
Part 301, Inland Lakes and Streams Permit; Part 303, Wetlands Protection Permit	Michigan Department of Environment, Great Lakes, and Energy	October 2026	February 2027
Field/Temporary Driveway Permit; Utility Permit	Livingston County Road Commission	October 2026	January 2027

<b>Subject</b>	<b>Responsible Agency</b>	<b>Expected Date of Application Submission</b>	<b>Expected Date of Permit Issuance</b>
Stormwater Management Plan Submission and Approval; Drain Crossing Permit; Soil Erosion & Sedimentation Control Permit	Livingston County Drain Commission	November 2026 November 2026 June 2027	March 2027 March 2027 August 2027
Special Use Permit and Site Plan Approval	Cohoctah Township	April-May 2025	June-July 2025
Utility Crossing Agreement	Michigan Bell Telephone Company	August 2025	September 2025
Utility Crossing Agreement	DTE	August 2025	December 2025
Utility Crossing Agreement	Consumers Power Company	August 2025	December 2025

*Conclusion*

Atwell has compiled a comprehensive list of the permits required for the Headland Solar Project. The list includes the subject of the permits, the agency responsible for issuing the permits, the expected date of application submission for the permits, and the expected date of issuance for the permits. As of the time of the application being submitted, no permits have been issued for the project. Based on the predicted timeline, all permits should be received by August 2027.

## IX. EXHIBIT A-6.4 STORMWATER MITIGATION PLAN

### ***Zoning Ordinance, Article XX – Site Plan Review Procedures***

- *Sec. 20.07.10 – Drainage Facilities*

#### *Background*

The Headland Solar project has contracted Atwell to prepare the stormwater mitigation plan for the project location. The plan's current status is in its preliminary phase, which roughly defines measures to address stormwater runoff from the proposed photovoltaic arrays on adjacent parcels and summarizes the necessary improvements detailed from consultations and an in person meeting on March 5, 2025 with the Livingston County Drain Commissioner's (LCDC) Office. The map itself contains the location of county and private drains, drainage districts, and municipal boundaries and tax parcels. The plan does not include stormwater management for the substations and operation and maintenance buildings and states the plan will be provided with the final design submittal.

#### *Results*

The stormwater mitigation plan contains 77 numbered impact areas and flow arrows, color-rated by severity and priority. Additionally, LCDC improvement comments dated March 25, 2025, derived from the consultant meeting are marked on the plan set. As indicated on the current plan, there are 31 runoff areas and seven county-established drains with arrows indicating surface flow discharging to the drains, located within Cohoctah Township. It also appears that surface flow will be routed to EGLE-regulated wetlands. Note that there are more indicated privately maintained water courses, tile, and wetlands within the area, but the provided plan set does not currently show flow reaching them. Listed below are comments from the LCDC office and a summary table of runoff table ratings:

1. Areas 1& 2 flow to Shiawassee County – Requires Approval of Intercounty Drain Board.
2. To avoid flow onto parcel 4702-07-300-002, divert flow from Area 27 west to a new inlet on the east side of Owosso Rd. and connect to Livingston #24 Drain West of Owosso Rd. Improve drain Livingston #24 -limits to be defined.
3. Provide water quality basin at the NE corner of Hayner/Owosso Roads to treat runoff from area 31 prior to Discharge under Owosso Road and parcel 4701-13-200-005. Improve Drain Conway #3 (Tile Portion), which receives this runoff.
4. Provide water quality basin for runoff from area 33 prior to discharge to parcel 4701-13-200-003. Divert runoff from area 34 south to tile portion of Conway #3, Noted to be improved in Note #3.
5. Provide water quality basin for runoff from area 35 prior to discharge into existing tile that flows to the Conway-Cohoctah Union (CCU) Drain.
6. Provide intercepting swale and water quality feature to capture and divert runoff from areas 38&40 into a controlled discharge to Drain Branch #3 of CCU. Outlet improvements to Branch #3 of CCU (proposed 36" tile) will be provided east of Owosso Road to the CCU Drain.
7. Improvements to Youngs Drain, enclosed tile to 36" – Limits TBD

8. Improvements to Stoner Drain, enclosed tile to 18” – Limits TBD
9. Improvements to Gleason Drain, enclosed tile to 18” – Limits TBD

**Table 7: Stormwater Runoff Areas Summary**

Priority By Color	Area Drainage Description	Total Count
A	Non-Participating Parcel W/ Home (Residential Area)	1
B	Non-Participating Parcel W/ Home (Wetland, Wooded or Agricultural Area)	2
C	Non-Participating Parcel or LCDC Road R.O.W (Wetland, Wooded or Agricultural Area)	4
D	Participating Parcel (Wetland, Wooded or Agricultural Area)	5
E	Established Drain (County or Private)	19

*Conclusion*

Upon reviewing the stormwater mitigation plan, it is evident that it is still in the preliminary phase. Included in the plan, listed as stormwater design guidance, states: the final project design will be required to provide an analysis summarizing a comparison of the existing and proposed runoff from all array areas to identify where runoff would increase. In those areas, a stormwater volume BMP (I.E. basin or other approved methods) will be necessary. In addition, it also requires an analysis to summarize the proposed method to meet water quality goals through standards and guidelines by the respected county and state agencies. These requirements are still yet to be fulfilled in the current report, as well as Township ordinance requirements requiring surface runoff calculations, permanent swale and water quality basins dimensions, contours to verify flow arrows, and identification of pervious and impervious surfaces with percentage indicating the makeup of the project area. We would recommend that the Cohoctah Township Planning Commission request the final design plan and subsequent report that details the design of basins, outlet structures, and best management practices to be used within the project to determine the adequacy of mitigating additional stormwater generated by the project; to ensure the plan conforms to local ordinances and state requirements prior to approval.

# EXHIBIT F

# EXHIBIT G



# JOURNAL OF NATURAL RESOURCES AND DEVELOPMENT

## Research note

# Potential for leaching of heavy metals and metalloids from crystalline silicon photovoltaic systems

Seth A. Robinson <sup>\*a</sup> and George A. Meindl <sup>b</sup>

<sup>a</sup> Department of Biology, University of Florida, Gainesville, FL, USA.

<sup>b</sup> Environmental Studies Program, Binghamton University, Binghamton, NY, USA.

\* Corresponding author: sethrobinson@ufl.edu

## Article history

Received 28/12/2018  
Accepted 07/05/2019  
Published 28/05/2019

## Keywords

Photovoltaics  
Green energy  
Crystalline silicon  
Selenium

## Abstract

Photovoltaics (PV) are a rapidly growing technology as global energy sectors shift towards “greener” solutions. Despite the clean energy benefits of solar power, photovoltaic panels and their structural support systems (e.g., cement) often contain several potentially toxic elements used in their construction. Determining whether these elements have the potential to leach into surrounding environments should be a research priority, as panels are already being implemented on a large scale. In this study, we analyzed soil taken from beneath photovoltaic modules to determine if they are being enriched by metals (lead, cadmium, lithium, strontium, nickel, barium, zinc, and copper) and metalloids (selenium) present in panel systems. The soil samples were collected from directly beneath c-Si photovoltaic modules and adjacent fields. Samples were analyzed by inductively coupled plasma optical emission spectrometry (ICP-OES). Selenium, strontium, lithium, nickel, and barium levels measured in soil samples increased significantly in samples closer to PV systems. There were no significant differences in lead or cadmium levels near vs. far from the PV systems. Despite concentration differences for some elements near vs. far from the panel systems, no elements were, on average, present in concentrations that would pose a risk to nearby ecosystems. PV systems thus remain a cleaner alternative to traditional energy sources, such as coal, especially during the operation of these energy production systems.

© 2019 This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## 1. Introduction

The demand and innovation of renewable energy systems is increasing as global temperature rises and fossil fuel reserves are exhausted (International Renewable Energy Agency, 2016). Current energy sectors are shifting towards renewable energy, with significant amounts of money (\$285.9 billion: 2015) being invested in the development of wind, hydro, and photovoltaic systems (REN21, 2016). Photovoltaic (PV) systems are considered by some to be the most promising of renewable technology as they do not suffer from the same aesthetic and "not in my backyard" controversies as wind power (Good, 2006); nor do they have the same ecological impacts as the infrastructure used for hydroelectric production (Chen, Chen, & Fath, 2015). In 2015, the annual market of photovoltaic systems increased tenfold over the previous decade (REN21, 2016). This uptick in use has brought increasingly diverse applications of PV technology, including Tesla's solar roof tiles, solar vehicles such as Solar Impulse, and floating PV panels (Harvey, 2016; Vaughan, 2016). Given the potential scale of application of these systems, considering environmental impacts of PV panel installation is important; whether PV systems present any serious ecological risk to surrounding environments during their use is currently unknown.

Photovoltaic panels contain several components known to present health risks to both wildlife and human populations. Metals and metalloids commonly used in panels include cadmium (Cd) and selenium (Se) semiconductors, copper (Cu) wiring, nickel (Ni) and silver (Ag) contacts, tin (Sn) and lead (Pb) soldering, and strontium (Sr) and barium (Ba) doping used to increase panel efficiency (Silicon Valley Toxics Coalition, 2009). Furthermore, structural support components of the PV system, including cement foundations, may also leach hazardous elements into surrounding environments over time (Lu et al., 2016). Lead and Cd, in particular, are contaminants of concern in the solar panel industry due to both their abundance within panels as well as their highly toxic nature (Aman et al., 2015). For example, exposure to Pb can cause kidney and brain damage as well as mortality in humans (Silicon Valley Toxics Coalition, 2009). Lead is also well documented to reduce reproduction, increase behavior problems, and cause mortality in wildlife (Needleman, 2004; Tranel & Kimmel, 2009). Cadmium is toxic to the kidneys, blood, prostate, and respiratory system (Silicon Valley Toxics Coalition, 2009). Other metals found within PV materials that are also highly toxic include Ni and Cd, which are known carcinogens (Needleman, 2004; Silicon Valley Toxics Coalition, 2009); copper (Cu), which can cause kidney and liver damage; Se, which can cause selenosis, a disease of the respiratory system, as well as hair loss and nail brittleness (Silicon Valley Toxics Coalition, 2009); and Sr, which can have negative effects on bone development if consumed in large quantities (Agency for Toxic Substances and Disease Registry, 2004). Despite the known toxicity of these elements, currently there is little information regarding whether or not PV panel systems can leach metals and metalloids into their environments during normal operation.

Photovoltaic environmental life cycle analyses (LCAs) typically address upstream and downstream processes (Corcelli et al., 2018; Stoppato, 2008). A few studies do, however, discuss leaching of

metals and metalloids. For example, Alsema, de Wild-Scholten and Fthenakis (2006) and Bohland and Smigielski (2000) both mention minuscule, non-harmful levels of cadmium leaching from panels. Other studies have broken up or ground PV panels into pieces and exposed them to solutions with a lower pH, mimicking acidic rain or waste water (Okkenhaug, Hauge, & Arp, 2010; Zapf-Gottwick et al., 2015). Specifically, Zapf-Gottwick et al. (2015) found significant amounts of Pb leached from panels, while Okkenhaug, Hauge, and Arp (2010) found only slightly elevated levels of Cd and Se leached in solution. However, in addition to having equivocal results, these lab studies were not done in the field during normal operation; thus, the question remains if panels leach harmful materials under realistic operating conditions.

The goal of this research is to determine if PV installations are capable of leaching their metal and metalloid components, especially Pb and Cd, into the environment at levels that are hazardous to both human and ecological health. To achieve this goal, we collected soil samples from beneath c-Si modules and from adjacent, module-free environments, and then compared bioavailable element concentrations between these samples. Accordingly, we asked the following questions: (1) Do soils near PV systems contain higher bioavailable concentrations of metals and metalloids? (2) Are bioavailable concentrations of metals and metalloids near PV systems of human health and ecological concern?.

## 2. Methods

### Study Site

The PV installation sampled is a 750,000-watt installation at State University of New York at Buffalo. Each module consisted of monocrystalline silicon panels with a length of 1.64 m (64.6 in) and a width of 1.00 m (39.4 in). Panels were arranged in rows of twelve with a height ranging from one panel to eight. The modules were installed in the winter of 2011 through 2012, and became fully operational in April of 2012.

### Sample Methods

Soil samples were collected in June of 2017. Starting at 100 ft from the edge of the outside modules, samples of about 500 g were collected every 15 ft following a 250 ft line parallel to a section of the PV modules. Working inwards to minimize possible contamination, samples were taken again at 45 ft and again at one final transect through the middle of the PV modules. Each of the five transects (100 ft, 45 ft, 0 ft) had a total of fifteen samples taken for a total of 45 samples collected.

200 g of each sample was then transferred to brown paper bags and dried for 48 hours at 65 °C. Samples were passed through a 2 mm sieve to remove large particulate matter. Samples were ground for 1 min using an agate mortar and pestle. The ground samples were then passed through a 0.125 mm sieve, with 2.5 mg of each being transferred to a 50 mL polypropylene centrifuge tube.

## Metal Extraction

For the extraction process, we followed TCLP Method 1311 set forth by the U.S. Environmental Protection Agency (1992). Following the above protocol, because the pH of our soil solutions was  $>5$ , we used TCLP reagent number 2 U.S. Environmental Protection Agency (1992). Following the TCLP reagent number 2, 5.7 mL of Glacial Acetic Acid ( $\text{CH}_3\text{CO}_2\text{H}$ ) was diluted with 1 L of nanopure water. The final pH of the solution was 2.86. Each 50 mL tube with 2.5 g of soil received 50 mL of the diluted  $\text{CH}_3\text{CO}_2\text{H}$  (20x the sample mass). The tubes were then rotated for 18 hours at 30 rpm. Four blank tubes filled with 50 mL of nanopure water accompanied each round of samples and were processed as controls. Acetic acid extraction is often used for determining leachable (i.e., bioavailable) fractions of metals in soil (Dean, 2010), and thus is appropriate for use in studies like ours that are interested in risk assessment to local ecosystems.

## Sample Analysis

After rotation, samples sat overnight and then were decanted into 15 mL polypropylene centrifuge tubes using a pipette. They were then analyzed for Pb, Cd, lithium (Li), Sr, Ni, Ba, zinc (Zn), Cu, and Se using inductively coupled plasma optical emission spectrometry (ICP-OES), with results being reported in parts per million (ppm). We used ANOVA (SPSS 24; IBM) to compare element concentrations across our three sample transects.

## 3. Results

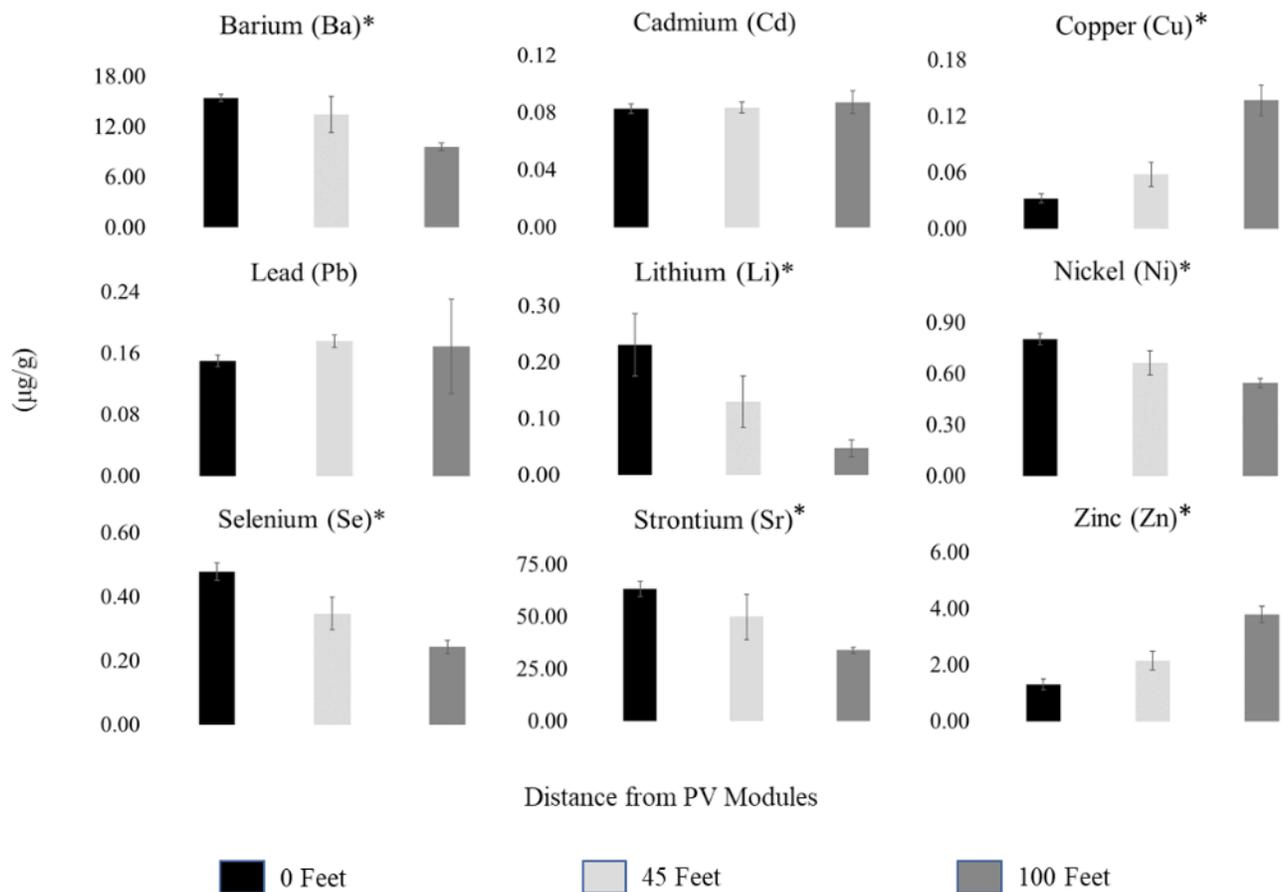
We found no difference in Cd concentrations ( $F_{2,27} = 0.20$ ,  $p = 0.82$ ; **Figure 1**) or Pb concentrations ( $F_{2,27} = 2.08$ ,  $p = 0.14$ ; **Figure 1**) along our distance gradient away from the panels. Selenium levels increased by 97 % from 100 ft to 0 ft in proximity to the PV panels ( $F_{2,27} = 9.96$ ,  $p < 0.01$ ; **Figure 1**), Li increased by 386 % ( $F_{2,27} = 4.74$ ,  $p = 0.02$ ; **Figure 1**), Sr increased by 86 % ( $F_{2,27} = 4.89$ ,  $p = 0.02$ ; **Figure 1**), Ni increased by 37 % ( $F_{2,27} = 7.18$ ,  $p < 0.01$ ; **Figure 1**), and Ba increased by 61 % ( $F_{2,27} = 5.25$ ,  $p < 0.01$ ; **Figure 1**). Zinc and Cu decreased significantly from the 100-foot mark to under the panels. Copper decreased by 1277 % ( $F_{2,27} = 18.23$ ,  $p < 0.01$ ; **Figure 1**) and Zn decreased by 195 % ( $F_{2,27} = 21.32$ ,  $p < 0.01$ ; **Figure 1**).

## 4. Discussion

In this study, we found that soil enrichment of Pb and Cd did not occur with closer proximity to PV systems. The values recorded for Se, Li, Sr, Ni, and Ba show a significant increase in concentration in soil closer to PV systems, while Zn and Cu increase significantly away from the systems. Below, we compare our results to soil concentration risk thresholds established by the Environmental Protection Agency's (USA) Ecological Soil Screening Level (Eco-SSL) risk assessment (U.S. Environmental Protection Agency, 2018), which is a conservative soil screening process that assumes soil metals are present in bioavailable form. In addition, we discuss the potential for leaching of potentially toxic elements from operational PV systems.

Several elements tested were either not variable across our distance gradient or were present in low concentrations that are not of immediate environmental concern. While studies suggest that Pb and Cd are the most common leachates from PVs (Okkenhaug, Hauge, & Arp, 2010; Zapf-Gottwick et al., 2015), Pb and Cd measured in this study were not elevated in soils near PV systems and were far below levels considered to be an imminent or future danger to environmental health [wildlife risk threshold for Pb:  $11 \mu\text{g} - 1 \text{g}$ ; for Cd:  $0.36 \mu\text{g} - 1 \text{g}$  (U.S. Environmental Protection Agency, 2018)]. For intact PV panels, leaching of these elements is unlikely to occur, thus most of the concern for contamination of Pb and Cd from solar panels relates to panels disposed in landfills that degrade over time, and become exposed to water (Zapf-Gottwick et al., 2015). However, it is possible under operating conditions that PV panels can leach toxic elements if water penetrates into the modules through damaged areas, such as cracks in the module glass or through defective laminations. Thus, it appears that the modules studied here are intact and do not provide a mechanism for the leaching of internal Pb and Cd. Although Li, Ba, Ni, and Sr were recorded as significantly higher in soils beneath PV panels, the amounts recorded for these elements were all well below the soil screening values defined by the EPA and others (Shahzad et al., 2016; U.S. Environmental Protection Agency, 2018; 40 C.F.R. § 261.24, 1996); thus, the c-Si panels do not seem to pose a risk of contamination of these elements during normal operation.

Selenium was observed to be significantly higher in soils closer to our study PV panels. In contrast to the other recorded elements, the levels observed may be of concern. The Eco-SSL risk threshold soil values for Se are  $0.52 \mu\text{g} - 1 \text{g}$  for plants, and  $0.63 \mu\text{g} - 1 \text{g}$  for mammals (U.S. Environmental Protection Agency, 2018). In our study, the average Se concentration measured directly by the PV systems was  $0.48 \mu\text{g} - 1 \text{g}$ , while the highest level of Se observed near the PV systems was  $0.57 \mu\text{g} - 1 \text{g}$ . Thus, using the conservative risk thresholds established by the EPA's Eco-SSL, Se concentrations near the PV systems are approaching a level of environmental concern for local plants and other wildlife. However, over time, even low concentrations of certain elements can become problematic due to accumulation in soil and nearby organisms. Bioaccumulation of Se occurs in both aquatic and terrestrial ecosystems (Mann, Vijver, & Peijnenburg, 2011). A study done in association with the US Department of Agriculture (Bañuelos et al., 2002) addressing phytoremediation of Se found that the Se accumulated could be transferred to animals that consumed the plants. Likewise, deleterious effects of predators could occur if they were to consume these animals with elevated Se in their tissue (Mann, Vijver, & Peijnenburg, 2011). Environmental regulators have noted the potential of Se to integrate into trophic systems, and have thus set acceptable levels extremely low when compared to other metals and metalloids (Ministerie van Volkshuisvesting, 2000). Future studies examining leaching of elements from PV systems should consider indirect effects of these elements on ecosystems, including bioaccumulation by plants and animals near PV systems. C-Si panels are not known to contain appreciable amounts of Se, thus the source of Se observed in our study is unclear. In a similar study that examined both copper indium selenide (CIS) panels and cadmium telluride (CdTe) panels, Se in soil near CIS panels on roofs was found to be elevated by  $0.3 \mu\text{g}$  per g when compared to surrounding soil.



**Figure 1:** . Soil concentrations of barium (Ba), cadmium (Cd), copper (Cu), lithium (Li), nickel (Ni), lead (Pb), selenium (Se), strontium (Sr), and zinc (Zn) at varying distances from the photovoltaic panels. Asterisks indicate significant differences among groups.

Conversely, Se levels in soil near CdTe were not elevated (Steinberger, 1998). C-Si panels do not have Se concentrations as high as amounts reported in CIGS (Copper Indium Gallium Selenide) panels (Silicon Valley Toxics Coalition, 2009). Likewise, Sr, which is a new material to the PV panel industry, does not have an integral position to the manufacturing of PVs. The most common application currently for Sr in PV cells is to increase the efficiency of perovskite panels (Shai et al., 2017; Wu et al., 2018). However, c-Si panels, like those studied here, generally incorporate perovskite technology without Sr (Ba, Liu, & Shen, 2018).

Therefore, the source of metals and metalloids documented under the PV system in this study may be from system components other than the panels themselves. Terrestrial PV modules are constructed of c-Si panels mounted on aluminum frames, which are secured into the ground using cement. It is quite possible that the elevated levels of Se and other elements studied here are a result of the cement used in construction. An impact assessment study conducted on a quarry and cement plant in California found discharge from the plant contained levels of Se well over 50 mg<sup>-1</sup> L. The source of this was

identified as the limestone mined for use in cement (Nalbandian, 2012). Furthermore, in addition to metals being introduced in raw materials (e.g., Se and Sr in limestone), the production clinker granules within cement are often produced using coal fly ash additives, which can introduce metals such as Ba, Cr, and Ni (Cipurkovic et al., 2014). These metals may later leach from the cement into the environment following exposure to water under realistic environmental conditions (Lu et al., 2016). Thus, our reported increase of bioavailable metals and metalloids beneath the intact panels should prompt further investigation regarding PV system-wide pollution.

Overall, PV systems should still be considered a clean energy relative to traditional sources. In comparison, the amount of Pb in fly ash (product produced from coal combustion) is 7.00 µg<sup>-1</sup>g, Cd is 0.093 µg<sup>-1</sup> g and Se is 2.15 µg<sup>-1</sup> g (Nalbandian, 2012). Although most of this contaminated fly ash may not affect the immediate vicinity, it is commonly disposed of in landfills and as a soil amendment in agriculture (Haynes, 2009). Despite toxic metal components, the PV panel industry is growing at such a fast pace that innovation should quickly phase out the use of harmful substances.

Examples of this include use of materials other than Pb for soldering as well as using organic materials as semiconductors instead of metals and metalloids (Kippelen, & Brédas, 2009). However, until these advancements occur industry-wide (e.g., organic materials are not yet commercially used as semiconductors due to low efficiency and stability; (Burlingame et al., 2018)), further studies are needed to determine the extent of leaching that occurs using current PV technology. While TLCP analyses of solar panels are common place for waste characterization [e.g., Okkenhaug, Hauge, & Arp, 2010], there is a paucity of studies that assess potential for leaching of toxic elements from PV systems during active operation.

We conclude that while no elements were, on average, above soil screening thresholds established by the EPA's Eco-SSL, further studies are needed to determine the impacts of PV system installation and operation on terrestrial ecosystems. PV systems, however, remain a cleaner alternative to traditional energy sources, such as coal, especially during the operation of these energy production systems.

#### Acknowledgments and Financial support

This project was funded in part by The Ronald E. McNair Postbaccalaureate Achievement Program at Binghamton University. We thank our colleagues at Binghamton University including Jonathan Schmitkons, John Titus, Joseph Graney, and David Collins. A special thanks to Alona Armstrong of Lancaster University for her role in inspiring this project.

#### References

- Agency for Toxic Substances and Disease Registry. (2004). Toxicological profile for Strontium. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.
- Alsema, E., de Wild-Scholten, M., & Fthenakis, V. (2006, Sep 4-8) Environmental impacts of PV electrical generation- a critical comparison of energy supply options," Paper presented at the *21st European Photovoltaic Solar Energy Conference*, Dresden, Germany.
- Aman, M. M., Solangi, K. H., Hossain, M. S., Badarudin, A., Jasmon, G. B., Mokhlis, H., Baker, A. H. A., & Kazi, S. N. (2015). A review of safety, health and environmental (SHE) issues of solar energy system. *Renewable and Sustainable Energy Reviews*, 41, 1190-1204. doi: <https://doi.org/10.1016/j.rser.2014.08.086>
- Ba, L., Liu, H., & Shen, W. (2018). Perovskite/c-Si tandem solar cells with realistic inverted architecture: Achieving high efficiency by optical optimization. *Progress in Photovoltaics: Research and Applications*, 26(11), 924-933. doi: <https://doi.org/10.1002/ppa.3037>
- Bañuelos, G. S., Vickerman, D. B., Trumble, J. T., Shannon, M. C., Davis, C. D., Finley, J. W., & Mayland, H. F. (2002). Biotransfer Possibilities of Selenium from Plants Used in Phytoremediation. *International Journal of Phytoremediation*, 4(4), 315-329. doi: <https://doi.org/10.1080/15226510208500090>
- Bohland J. R., & Smigielski, K. (2000, Sep 15-22). First Solar's CdTe module manufacturing experience; environmental, health and safety results. Paper presented at the *Conference Record of the Twenty-Eighth IEEE Photovoltaic Specialists Conference*, Anchorage, AK, USA.
- Burlingame, Q., Coburn, C., Che, X., Panda, A., Qu, Y., & Forrest, S. R. (2018). Centimeter-scale electron diffusion in photoactive organic heterostructures. *Nature*, 554, 77-80. doi: <https://doi.org/10.1038/nature25148>
- Cipurkovic, A., Trumic, I., Hodžić, Z., Selimbašić, V., & Džozic, A. (2014). Distribution of heavy metals in Portland cement production process. *Advances in Applied Science Research*, 5(6), 252-259.
- Corcelli, F., Ripa, M., Leccisi, E., Cigolotti, V., Fiandra, V., Graditi, G., Sannino, L., Tammaro, M., & Ulgiati, S. (2018). Sustainable urban electricity supply chain – Indicators of material recovery and energy savings from crystalline silicon photovoltaic panels end-of-life. *Ecological Indicators*, 94, 37-51. doi: <https://doi.org/10.1016/j.ecolind.2016.03.028>
- Chen, S., Chen, B., & Fath, B. D. (2015). Assessing the cumulative environmental impact of hydropower construction on river systems based on energy network model. *Renewable and Sustainable Energy Reviews*, 42, 78-92. doi: <https://doi.org/10.1016/j.rser.2014.10.017>
- Dean, J. R. (2010). Heavy metal bioavailability and bioaccessibility in soil. In: Cummings S. (eds) *Bioremediation. Methods in Molecular Biology (Methods and Protocols)*, vol 599, 15-36. Humana Press. doi: [https://doi.org/10.1007/978-1-60761-439-5\\_2](https://doi.org/10.1007/978-1-60761-439-5_2)
- Good, J. (2006). The aesthetics of wind energy. *Human Ecology Review*, 13(1), 76-89.
- Harvey, F. (2016, Feb 29). World's biggest floating solar farm powers up outside London. *The Guardian*. Retrieved from [www.theguardian.com/environment/2016/feb/29/worlds-biggest-floating-solar-farm-power-up-outside-london](http://www.theguardian.com/environment/2016/feb/29/worlds-biggest-floating-solar-farm-power-up-outside-london)
- Haynes, R. J. (2009). Reclamation and revegetation of fly ash disposal sites – Challenges and research needs. *Journal of Environmental Management*, 90(1), 43-53. doi: <https://doi.org/10.1016/j.jenvman.2008.07.003>
- International Renewable Energy Agency. (2016). Renewable energy and jobs - annual review 2016. Retrieved from <https://www.irena.org/publications/2016/May/Renewable-Energy-and-Jobs--Annual-Review-2016>
- Kippelen, B., & Brédas, J.-L. (2009). Organic photovoltaics. *Energy & Environmental Science*, 2(3), 251. doi: <https://doi.org/10.1039/b812502n>
- Lu, H., Wei, F., Tang, J., & Giesy, J. P. (2016). Leaching of metals from cement under simulated environmental conditions. *Journal of Environmental Management*, 169, 319-327. doi: <https://doi.org/10.1016/j.jenvman.2015.12.008>
- Mann, R. M., Vijver, M. G., & Peijnenburg, W. J. G. M. (2011). Metals and metalloids in terrestrial systems: Bioaccumulation, biomagnification and subsequent adverse effects. In Sánchez-Bayo, F., van den Brink, P. J., & Mann, R. M. (Eds), *Ecological Impacts of Toxic Chemicals* (43-62). Sydney. doi: <https://doi.org/10.2174/9781608051212111010043>
- Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer. (2000). Dutch Target and Intervention Values.
- Nalbandian, H. (2012). Trace element emissions from coal. IEA Clean Coal Centre. Retrieved from [https://www.usea.org/sites/default/files/092012\\_Trace%20element%20emissions%20from%20coal\\_ccc203.pdf](https://www.usea.org/sites/default/files/092012_Trace%20element%20emissions%20from%20coal_ccc203.pdf)
- Needleman, H. (2004). Lead poisoning. *Annual Review of Medicine*, 55(1), 209-222. doi: <https://doi.org/10.1146/annurev.med.55.091902.103653>
- Okkenhaug, G., Hauge, A., & Arp, H. (2010). Environmental risks regarding the use and final disposal of CdTe PV modules. Norwegian Geotechnical Institute (NGI) Report 20092155-00-1-R. Norway.
- REN21. (2016). Renewables 2016 Global Status Report. Retrieved from [http://www.ren21.net/wp-content/uploads/2016/05/GSR\\_2016\\_Full\\_Report\\_lowres.pdf](http://www.ren21.net/wp-content/uploads/2016/05/GSR_2016_Full_Report_lowres.pdf)
- Shahzad, B., Mughal, M. N., Tanveer, M., Gupta, D., & Abbas, G. (2016). Is lithium biologically an important or toxic element to living organisms? An overview. *Environmental Science and Pollution Research*, 24(1), 103-115. doi: <https://doi.org/10.1007/s11356-016-7898-0>
- Shai, X., Zuo, L., Sun, P., Liao, P., Huang, W., Yao, E., Li, H., Liu, S., Shen, Y., Yang, Y., & Wang, M. (2017). Efficient planar perovskite solar cells using halide Sr-substituted Pb perovskite. *Nano Energy*, 36, 213-222. doi: <https://doi.org/10.1016/j.nanoen.2017.04.047>
- Silicon Valley Toxics Coalition. (2009, Jan 14). Towards a just and sustainable solar industry. Silicon Valley Toxics Coalition. Retrieved from

- [http://svtc.org/wp-content/uploads/Silicon\\_Valley\\_Toxics\\_Coalition\\_-\\_Toward\\_a\\_Just\\_and\\_Sust.pdf](http://svtc.org/wp-content/uploads/Silicon_Valley_Toxics_Coalition_-_Toward_a_Just_and_Sust.pdf)
- Steinberger, H. (1998). Health, safety and environmental risks from the operation of CdTe and CIS thin-film modules. *Progress in Photovoltaics: Research and Applications*, 6, 99-103, 1998.
- Stoppato, A. (2008). Life cycle assessment of photovoltaic electricity generation. *Energy*, 33(2), 224-232. doi: <https://doi.org/10.1016/j.energy.2007.11.012>
- Tranel, M., & Kimmel, R. (2009). Impacts of lead ammunition on wildlife, the environment, and human health—a literature review and implications for Minnesota. *Ingestion of Lead from Spent Ammunition: Implications for Wildlife and Humans*. doi <https://doi.org/10.4080/ilsa.2009.0307>
- U.S. Environmental Protection Agency. (1992). Method 1311: Toxicity characteristic leaching procedure. Test methods for evaluating solid waste, Physical/Chemical Methods.
- U.S. Environmental Protection Agency. (2018, Dec 20). Ecological soil screening level. Retrieved from <https://www.epa.gov/chemical-research/ecological-soil-screening-level>
- Vaughan, A. (2016, Jan 27). Japan begins work on 'world's largest' floating solar farm. The Guardian. Retrieved from [www.theguardian.com/environment/2016/jan/27/japan-begins-work-on-worlds-largest-floating-solar-farm](http://www.theguardian.com/environment/2016/jan/27/japan-begins-work-on-worlds-largest-floating-solar-farm)
- Vodyanitskii, Y. N. (2016). Standards for the contents of heavy metals in soils of some states. *Annals of Agrarian Science*, 14(3), 257-263. doi: <https://doi.org/10.1016/j.aasci.2016.08.011>
- Wu, M.-C., Chen, W.-C., Chan, S.-H., & Su, W.-F. (2018). The effect of strontium and barium doping on perovskite-structured energy materials for photovoltaic applications. *Applied Surface Science*, 429, 9–15. doi: <https://doi.org/10.1016/j.apsusc.2017.08.131>
- Zapf-Gottwick, R., Koch, M., Fischer, K., Schwerdt, F., Hamann, L., Kranert, M., Metzger, J., & Werner, J. (2015). Leaching hazardous substances out of photovoltaic modules. *International Journal of Advanced Applied Physics Research*, 2(2), 7-14. doi: <https://doi.org/10.15379/2408-977x.2015.02.02.2>
- 40 C.F.R. § 261.24. United States Environmental Protection Agency. 1996.

# EXHIBIT H



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
PUBLIC SERVICE COMMISSION

MARLON I. BROWN, DPA  
DIRECTOR

KATHERINE PERETICK  
COMMISSIONER

DAN SCRIPPS  
CHAIR

SHAQUILA MYERS  
COMMISSIONER

Mr. Brandon Hubbard  
Dickinson Wright PLLC  
123 W. Allegan St, Ste. 900  
Lansing, MI 48933

**RE: Case No. U-21932** – In the matter of the application of ACCELERATION SOLAR, LLC for a Renewable Energy or Storage Siting Certificate to construct a solar energy facility.

August 1, 2025

Dear Mr. Hubbard,

On June 18, 2025, Acceleration Solar, LLC (applicant) filed an application with the Michigan Public Service Commission (Commission) for a certificate under Section 222(2) of Public Act 233 of 2023 (PA 233). The proposed project presented in the application is a solar energy facility with a proposed output of approximately 90 MW<sub>AC</sub> to be located in Leslie, Onondaga, and Vevay Townships, Ingham County.

Under Section 225(2) of PA 233, the Commission is required to determine whether the application is complete within 60 days of submission. A complete application is one which complies with the requirements of Section 225(1) of PA 233, as applied through the Commission's Application Filing Instructions and Procedures (AFIP) and other orders and guidance materials.

Consistent with Section 225(2) of PA 233 and AFIP 4(a)(4), this memorandum serves to notify you that Commission Staff has completed its review of the application and determined that the application is incomplete. A description of application deficiencies and the information necessary to make the application complete is included with this memo.

Additional filings are required if the application is to proceed. The applicant may make changes to its application to correct the deficiencies and resubmit its new application, which Commission Staff will again review for sufficiency and completeness. Along with additional documentation, Staff also requests the applicant file an updated Exhibit A-16, identifying portions of the application where changes or updates were made. Please be aware that application information not identified as incomplete may still require further development and submissions from the applicant in the course of the Commission's review process. Further, information submitted to cure items identified as incomplete will be subject to further review by Staff, and may also require further development and submission from the applicant. This memorandum is intended to

**LARA is an equal opportunity employer/program.**

**Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.**

7109 W. SAGINAW HIGHWAY • P.O. BOX 30221 • LANSING, MICHIGAN 48909 • [www.michigan.gov/mpsc](http://www.michigan.gov/mpsc) • 517-284-8100



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS  
PUBLIC SERVICE COMMISSION

MARLON I. BROWN, DPA  
DIRECTOR

KATHERINE PERETICK  
COMMISSIONER

DAN SCRIPPS  
CHAIR

SHAQUILA MYERS  
COMMISSIONER

address only the process identified in Section 225(2) of PA 233 and AFIP 4(a)(4) and nothing in this memorandum should be construed as addressing the sufficiency of the applicant's filing under Section 226(7) of PA 233 for issuance of a certificate.

To request further information or with questions, please email [LARA-MPSC-Siting@michigan.gov](mailto:LARA-MPSC-Siting@michigan.gov), which will reach the Michigan Public Service Commission's Renewable Energy and Storage Siting Section.

**LARA is an equal opportunity employer/program.**

**Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.**

7109 W. SAGINAW HIGHWAY • P.O. BOX 30221 • LANSING, MICHIGAN 48909 • [www.michigan.gov/mpsc](http://www.michigan.gov/mpsc) • 517-284-8100

The below list contains items determined to be incomplete in Staff's review. The order of incomplete items aligns with the application as filed. Each item is labeled according to the requirement of the Commission's Application Filing Instructions and Procedures and/or law. Where possible, Staff included descriptions of what may be provided to complete the application as filed.

#### **Exhibits A-1.1 through A-1.16 (Site Plan)**

1. (AFIP 7) – Assure all items provided are clear and legible, which in some instances may entail providing the below items on separate layers, separate maps, or by showing some areas on another scale.

#### **Exhibit A-1.1 (Planned Facilities)**

2. (AFIP 7; AFIP 7.1(a)(3)) – Provide drawings clearly delineating the limits of clearing and disturbance for construction of the facility and ancillary features on the Site Plans.
3. (AFIP 7.1(a)(5)) – Provide a map showing the full length of the waterbody identified in parcel 33-13-13-01-200-014, or identify where it is provided in the application.
4. (AFIP 7.1(b)) – Provide clear depictions of the planned locations of the vegetative cover that are proposed, including e.g., labeling individual pollinator seed mixes.
5. (AFIP 7; AFIP 7.1(c); AFIP 7.1(a)(7); AFIP 7.1(a)(9); AFIP 6.3.10(a)(1)) – The dimensioned drawings of the project provided, including Appendix 2 Exhibit A-1.1 Sheets 6-9, contain the following items lacking clarity/legibility. Provide dimensioned drawings or maps consistent with the requirements of AFIP 7.1 which resolve these items. Multiple maps may be provided for different features to avoid cluttering.
  - a. The measurements within the drawings are inconsistent with the scale provided.
  - b. The drawings fail to distinguish between occupied and unoccupied structures, or between participating and non-participating properties.
  - c. The drawings, in many instances, do not provide the measurements between features and the project fence.
  - d. The drawings do not identify the shared property lines of adjacent non-participating properties.
  - e. The drawings fail to distinguish the feature(s) referenced by the “Exist. Road R.O.W” markers.
  - f. It is not clear whether setbacks for public roads are measured from the edge of the right-of-way; if not, provide them.
6. (AFIP 7; AFIP 7.1(c); AFIP 7.2(a)(9)) – Provide versions of site plan figures and maps showing boundaries of participating and neighboring non-participating parcels – do so particularly where such boundaries would improve clarity, such as in Appendix 2, Exhibit A-1.1 Sheets 06-09.

#### **Exhibit A-1.2 (Area Land Use Information)**

7. (AFIP 7.2(a)(7)) – Clarify whether there are any designated agricultural districts within the proposed facility and within 1000ft of the proposed facility; if so, display them on Exhibit A-1.2 maps.
8. (AFIP 7.2(a)(8)) – Provide a map in Exhibit A-1.2 displaying forest lands within the proposed facility and within 1000ft of the proposed facility.
9. (AFIP 7.2(a)(8)) – Clarify whether there are major communication infrastructure within the proposed facility and within 1000ft of the proposed facility; if so, display them on Exhibit A-1.2 maps.

### **Exhibit A-1.3 (Explanatory Information)**

10. (AFIP 7.3(a)) – Provide a description of the socioeconomic and demographic profiles of the project area and the portion of the community where the project will be sited.
11. (AFIP 7.3(a)) – Provide a description of the major industries in the project area and the portion of the community where the project will be sited.
12. (AFIP 7.3(a)(1)(iii)) – Provide justification for how the proposed project location, layout, construction methods, planned screening, etc. minimize visual impacts of the project on adjacent landowners and the broader communities containing the project. This may include identifying any visual impact or aesthetic requirements in the zoning ordinances of each affected local unit and explaining how the project design meets or exceeds those standards, or justification for not doing so.
13. (AFIP 7.3(a)(5)) – Describe the plan to meet or exceed pollinator standards as established by the Pollinator Habitat Planning Scorecard by achieving a score of 76 or higher, for example by providing the filled-out version of the Scorecard for the project and associated explanation. As part of the description for meeting or exceeding pollinator standards throughout the *lifetime* of the proposed facility, provide the maintenance plan for the vegetation and note if it is compatible with the identified seed mix(es) to be installed.
14. (AFIP 7.3(a)(6)) – Provide electrical design details describing how metal fences surrounding substations or other energized equipment will be grounded and bonded in compliance with the National Electric Code (e.g., NEC 2023 Article 250.190). This description may be supported by illustrations of typical grounding details (e.g., grounding rods, bonding jumpers, conductor sizes).

### **Exhibit A-1.4 (Construction Information)**

15. (AFIP 7.4(a)(1)) – Describe the project’s soil surveying and testing plans, pursuant to NREPA. This may include, but is not limited to:
  - a. Soil surveying and testing required for permitting, such as Soil Erosion and Sedimentation Control permitting under Part 91 of NREPA;
  - b. Soil surveying and testing conducted during environmental site assessments to verify compliance applicable provisions of NREPA, such as a baseline environmental assessment; and,

- c. Soil surveying and testing used to inform the project's proposed construction and installation methods.

16. (AFIP 7.4(a)(2)) – Provide the project's proposed methods for grading and excavation.

**Exhibit A-1.5 (Alternatives)**

17. (AFIP 7.5(a)) – Provide a map and description of each alternative site location, proposed site layout, or other alternative that was considered for the proposed project but was not ultimately selected for development, and provide rationale for why each such alternative was not selected.

**Exhibit A-1.6 (Changes)**

18. (AFIP 7.6(a)) – The application must include a map and description of each potential modification or variation to the proposed site plan being considered at the time of filing and that will be finalized prior to construction. A description may include conditions that would trigger the change, and when those conditions would be known and the ultimate decision made.
19. (AFIP 7.6(a)) – Provide maps depicting the changes described in Appendix 2, Exhibit A-1.6 Changes #1, 3, 4A, 4C, and 8. For each other change fitting within the categories presented in Appendix 1, Exhibit A-1.6, provide a map and description.

**Exhibit A-1.9 (Emergency Response Plan)**

20. (AFIP 7.9(a)) – Exhibit A-1.9 should include the entirety of the Emergency Response Plan (ERP). As submitted, multiple required items are contained elsewhere in the application (such as within Appendix 1, Exhibit A-1.9), but not within the ERP itself (Appendix 2, Exhibit A-1.9). Provide an ERP which includes all information required under AFIP 7.9. In particular, provide an ERP which includes the following omitted items:
- a. (AFIP 7.9(a)(1)) – Evidence of consultation, or a good-faith effort to consult with, local first responders and county emergency managers. Evidence of a good-faith effort to consult with local first responders could include a description of the efforts that were made to initiate consultation. Evidence of consultation could include meeting dates, attendees, and any noteworthy outcomes or revisions to the ERP as a result of such consultation.
  - b. (AFIP 7.9(a)(2)) – A full list of contingencies (excluding fire) that would constitute a safety or security emergency, including but not limited to, the following items which are discussed elsewhere in the application:
    - i. Specific types of severe weather events.
    - ii. Personnel (or visitor) health emergencies or injuries.
    - iii. Cyber security emergencies.
    - iv. Capacity or transmission emergencies.

- v. Any additional specific contingencies currently not within the ERP.
- c. (AFIP 7.9(a)(3)) – Specific emergency response measures by contingency, which may include a more complete description of “robust emergency response protocols” (as described in the ERP) for each contingency.
- d. (AFIP 7.9(a)(4)) – Evacuation control measures for each contingency. If any aspects of evacuation measures will be determined at a later point, provide detail for when and how these measures will be determined.
- e. (AFIP 7.9(a)(5)) – Community notification procedures for each contingency.
- f. (AFIP 7.9(a)(6)) – Clear identification (for example, on a basic map) of the primary approach and departure routes for emergency vehicles, entrance locations, and primary access roads for the project. The ERP notes that access roads will be 12-foot wide, while other application materials note 14-foot access roads; this discrepancy should be clarified.

**Exhibit A-1.10 (Fire Response Plan)**

- 21. (AFIP 7.10(a)) – Exhibit A-1.10 should include the entirety of the Fire Response Plan (FRP). As submitted, multiple required items are contained elsewhere in the application (such as within Appendix 1, Exhibit A-1.10), but not within the FRP itself (Appendix 2, Exhibit A-1.10). Provide an FRP which includes all of the information required under AFIP 7.10. In particular, provide an FRP which includes the following omitted items:
  - a. (AFIP 7.10(a)(1)) – Evidence of consultation, or a good faith effort to consult with local fire department representatives, or, in the alternative, the State Fire Marshall or other local emergency manager. Evidence of a good-faith effort to consult with local first responders could include a description of the efforts that were made to initiate consultation. Evidence of consultation could include meeting dates, attendees, and any noteworthy outcomes or revisions to the FRP as a result of such consultation.
  - b. (AFIP 7.10(a)(2)) – Detail regarding the on-site equipment and systems to be provided or to prevent or handle fire emergencies. This description should include equipment and systems in the O&M building, and any other equipment or systems that will be utilized in on-site project areas other than the O&M building.

**Exhibit A-1.14 (Unanticipated Discoveries Plan)**

- 22. (AFIP 7.14(a)) – Provide anticipated impacts and plans to mitigate impacts to the environment and natural resources, including evidence of all environmental impact assessments referenced on page 2 of Application Appendix 2, Exhibit A-1.14. The applicant may choose to include this additional information in Exhibit A-6.2 and provide reference in Exhibit A-1.14.

**Exhibit A-1.16 (Complaint Resolution Process)**

23. (AFIP 7.16(a)(5)) – Within the Complaint Resolution Process, provide procedures for regular reporting of each complaint, and how *each* complaint was resolved.

**Exhibit A-2 (Project Description)**

24. (AFIP 6.3.2(a)(2)(iii)) – Regarding Appendix 2 Exhibit A-2. The AFIP indicates that the applicant is to indicate “The percentage of land within the township, city, or village dedicated to energy generation at the time of the application” and “the percentage of land within the county dedicated to energy generation at the time of the application.” The applicant indicates that the land associated with energy production is unknown, however the applicant also indicates the known presence of energy generation, e.g. a solar energy project located on 155 acres in Leslie Township. Provide the estimated percentage of land within the townships and county dedicated to energy generation based on publicly-available data and any other data available to the applicant. The estimate should include the percentage of land dedicated to energy production from the Blue Elk Solar project(s), as well as natural gas and petroleum facilities identified by the applicant in the north part of Ingham County. Publicly-available data sources may include the MPSC GIS hub to find current solar and wind facilities located within each township and within Ingham County.

**Exhibit A-4.2 (Local and Community Outreach)**

25. (AFIP 6.3.4(a)(2)(i)) – Provide a summary of outreach conducted to community groups, environmental organizations, and labor union representatives. For each interaction, provide at a minimum the date and time the outreach took place, who participated in the consultation, and a summary of findings, which may include any follow-up actions that were identified.

**Exhibit A-4.4 (Agency Consultations)**

26. (AFIP 6.3.4(a)(4)) – Regarding Application Appendix 2, Exhibit A-4.4, include each item designated by the AFIP for all consultations. Regarding each necessary permit, provide the timeline associated with securing that permit (“associated timeline”), including any permitting requirements and next steps to meet the requirements of the agency and any applicable laws. Required information is not limited to the period prior to construction. Staff was able to identify the following items as missing; if they were not provided, indicate as such.
- a. MDNR (Wildlife Division) – next steps and associated timeline.
  - b. EGLE – Time of consultation on February 26, 2025, next steps, and associated timeline.
  - c. County Road – Time of consultation on May 12, 2025, and associated timeline.
  - d. SHPO – next steps and associated timeline.
  - e. MDARD – associated timeline.
  - f. County Emergency Management – associated timeline.

- g. Consumers Energy – associated timeline.

### **Exhibit A-6.2 (Environmental Compliance)**

27. (PA 233 Sec. 225(1)(f); AFIP 6.3.6(a)(2)) – In Application Appendix 1, Project Narrative on Exhibit A-6.2, the applicant states that it “will conduct comprehensive environmental assessments prior to construction to identify the expected direct impacts” of the facility. However, the application itself must include the “expected direct impacts” of the facility. Provide a complete and exhaustive environmental assessment – titled “Environmental Compliance Report” – which includes all expected direct impacts to the environment and natural resources, with comprehensive supporting evidence specific to the proposed project area. To the extent alternative project areas were also assessed based on expected direct impacts to environmental and natural resources, that information could also be presented in a similar Report.
28. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(2); 6.3.6(a)(3)) – Within the Environmental Compliance Report, provide specific avoidance and/or mitigation strategies proposed based on the expected direct impacts of the project. Further, provide reasonable evidence to demonstrate that the proposed facility will comply with all applicable laws prior to commercial operation date. Such evidence may include identifying applicable laws and permits, and providing a plan for required avoidance and/or mitigation strategies.
29. (PA 233 Sec. 225(1)(i); MCL 324.1705(2); AFIP 6.3.6(a)(2)) – Within the Environmental Compliance Report, describe how the proposed project complies with the Michigan Environmental Protection Act, MCL 324.1705(2). This description should address the following items, and may also include identification of environmental impacts that also involve separate permitting decisions under the purview of other regulatory agencies.
  - a. The alleged pollution, impairment, or destruction of natural resources or the public trust in these resources, with supporting evidence; and,
  - b. Feasible and prudent alternatives consistent with the reasonable requirements of the public health, safety, and welfare. The results of the “site suitability tool” referenced on p18 of the Application Project Narrative, but not provided in the application, could be a part of such an assessment.
30. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(2)) – In Appendix 2 Exhibit A-1.5 Alternative #3, the applicant states that a parcel was added in Onondaga Township to “ensure the project’s viability and optimize power generation”, while “requir[ing] minimal additional impacts”. Regarding this parcel: provide the expected direct impacts on the environment and natural resources and how the applicant intends to address and mitigate these impacts. Impacts appear to include, but may not be limited to, those resulting from the additional tree clearing and development adjacent to a waterbody.
31. (PA 233 Sec. 225(1)(f) and 225(1)(i) and 226(7)(c); AFIP 6.3.6(a)(2)) – Within the Environmental Compliance Report, provide the expected direct impacts of the proposed energy facility on wetlands and waterways (including waterbodies and watercourses); a

plan describing how these impacts are proposed to be addressed and/or mitigated; and a statement and reasonable evidence that the proposed facility will not begin commercial operation until it complies with applicable state and federal law. Such content may include detailed maps and reports of wetlands, waterbodies, and watercourse assessments, and delineation methodology utilized for proposed project area and 1000-ft perimeter.

32. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(ii)) – Project MNFI results include a record of the Blanding’s turtle, which appears under Michigan DNR Fisheries Order 224.25. Describe expected direct impacts to this species and a plan describing how these impacts are proposed to be addressed and/or mitigated, with reasonable evidence to support compliance with law.
33. (PA 233 Sec. 225(1)(f) and 225(1)(i); AFIP 6.3.6(a)(2)(i)) – Application Appendix 2, Exhibit A-6.2 indicates that the formal consultation process with SHPO has not yet been initiated by way of application submission, and that an archaeological assessment and architectural historical survey have not begun or are incomplete. Provide the expected direct impacts of the proposed energy facility on cultural and historical resources, including sites; a plan describing how these impacts are proposed to be addressed and/or mitigated; and reasonable evidence that the proposed facility will not begin commercial operation until it complies with applicable state and federal law. A description of the expected direct impacts could include a desktop survey of cultural and historical resources within the project area and an appropriate buffer; and the plan to address and mitigate impacts / reasonable evidence for compliance with law may include a description of the applicant’s plan and timeline for completing required field surveying. Each should be conducted in consultation with SHPO, or provide a justification for any consultation the applicant deemed not necessary.
34. (PA 233 Sec. 225(1)(f); AFIP 6.3.6(a)(2)(i); 7.2(a)(8)) – Provide information regarding the presence of wildlife corridors within the proposed project area and within 1000ft of the project area. For areas identified, indicate the expected direct impacts of the proposed project and impact mitigation strategies.
35. (PA 233 Sec. 225(1)(i); AFIP 6.3.6(a)(2)(ii)) – Regarding materials management and pollution prevention, provide evidence that the proposed facility will comply with Part 5 rules of Part 31 of NREPA (Mich Admin Code R 324.2001, *et seq.*).

#### **Exhibit A-6.4 (Stormwater Mitigation Plan)**

36. (AFIP 6.3.6(a)(4)(i)) – Incorporate a plan to minimize, mitigate, and repair (MMR) drainage impacts into the Stormwater Mitigation Plan.
37. (AFIP 6.3.6(a)(4)(ii); AFIP 6.3.4(a)(4)) – Regarding Application Appendix 2, Exhibit A-6.4, submitted materials include itemized guidance from the Ingham County Drain Commissioner (ICDC) issued in a February 3, 2025 meeting and through correspondence on March 25, 2025, as well as referenced guidance from a February 20, 2025 meeting with the ICDC (Application Appendix 2, Exhibit A-4.4). Address all guidance from

consultation with the ICDC in the Stormwater Mitigation Plan, or MMR upon its inclusion into the Stormwater Mitigation Plan. Further, include agency consultation details, including date and time the consultation took place, who participated in the consultation, and copies of correspondence listing necessary permits, next steps, and associated timeline for each consultation. This may be satisfied by reference to Exhibit A-4.4, so long as such information is provided in that exhibit. Upon incorporation, address the following:

- a. (AFIP 6.3.4(a)(4); 6.3.6(a)(4)(ii)) Provide a comprehensive documentation of consultation with the ICDC, including all meeting minutes or summaries, guidance from the ICDC, and referenced email attachments. Clearly indicate what correspondence each attachment is associated with. Staff was able to identify the following items as missing:
  - i. The referenced attachment in a February 6, 2025 email correspondence from the ICDC. Based on a February 7, 2025 response from Atwell, this letter contained review and response of the concept plan and meeting notes.
  - ii. The referenced attachment in a February 14, 2025 email from Atwell.
  - iii. The referenced attachment in a February 20, 2025 email from PEA Group.
  - iv. The guidance received from the ICDC in a February 20, 2025 meeting.
  - v. Details of the February 20, 2025 meeting, such as meeting minutes.
  - vi. All referenced attachments from a February 28, 2025 email from Atwell.
  - vii. The referenced attachment from an April 8, 2025 email from Ranger Power or verify if it is the Project Memorandum included in Exhibit A-4.4 with Subject "Panels as impervious surface".
  - viii. The document(s) referenced by the ICDC in a May 12, 2025 email from SFMatta@lan-inc.com.
- b. Provide the date and time for all meetings. Staff have identified at least the following as missing:
  - i. The time of the February 3, 2025 meeting.
  - ii. The date and time of the consultation referenced in the Project Memorandum with Subject "Panels as impervious surface".
- c. Identify the names of the participants for each consultation. Staff has identified at least the February 20, 2025 consultation list as missing.
- d. List necessary permits, next steps, and associated timeline to complete those steps for each consultation.

**Exhibit A-8.3 (Host Community/Community Benefit Agreements)**

38. (AFIP 6.3.8(a)(3)(i)) – Provide signed copies of Host Community Agreements (HCAs) and/or Community Benefits Agreements (CBAs).
- a. In the event that HCAs have been proposed but not signed, provide proof of submittal of the proposed HCA to each Affected Local Unit showing the date and time the proposed HCA was sent to each ALU.
  - b. Provide or identify the payment provision within each HCA that specifies the exact monetary amount to be dispensed to each ALU, based upon the nameplate capacity located within that ALU. The nameplate capacity and dollar amount specific to the ALU should be specified within that ALU’s (proposed or signed) HCA.

**Exhibit A-8.4: (Local Job Creation)**

39. (AFIP 6.3.8(a)(4); AFIP 6.3.14(a) and Attachment F(20)) – Provide a Project Labor Agreement (PLA), or collective bargaining agreement, for the proposed project, as applicable. Further, provide a proposal for how the applicant will meet Proposed Minimum Condition 20, or provide a justification for why the condition should not be applied to the facility. Meeting that condition requires utilizing a “Project Labor Agreement” as the term is defined under PA 233 Sec. 221(u). If such a proposal is provided, address how the PLA will comply with each term of 221(u).

**Exhibit A-9 (Farmland Protection)**

40. (AFIP 6.3.9; AFIP 6.3.9(b)(3-5)) – Using publicly-available data, such as <https://croplandcros.scinet.usda.gov/> or the most recent National Land Cover Dataset, calculate the total number of acres of farmland within each of Leslie, Onondaga, and Vevay Townships. Using those or other tools, such as the National Resource Conservation Service’s Web Soil Survey tool, calculate the total acreage of farmland in each township differentiated by type. Use the resulting values to complete the requirements of AFIP 6.3.9.

**Exhibit A-13.1 through 13.3 (Decommissioning)**

41. (AFIP 6.3.13(1)(iii)) – In Appendix I, Exhibit A-13.1, the applicant states “Appendix 2, Exhibit A-13.1 ...[ ]... includes a facility overview, expected useful life, triggers for decommissioning, and soil analysis to ensure post-decommissioning soil quality.” Appendix 2, Exhibit A-13.1 does not include any description of events which would trigger applicant-initiated decommissioning. Provide a description of events which would trigger applicant-initiated decommissioning.
42. (AFIP 6.3.13(1)(iv)) requires that the decommissioning plan contain “[a] physical and chemical analysis of the soil which can be used to ensure soil is returned to a useful condition.” In Appendix 2, Exhibit A-13.1, the applicant states “According to the USDA Web Soil Survey, the physical and chemical analysis of soils within the project area indicates predominantly loam and sandy loam textures with pH values ranging from mildly acidic (6.0) to neutral (7.0), conducive to various agricultural and ecological

uses.” Explain how the analysis provides sufficient details to “ensure post-decommissioning soil quality”, or supplement it as appropriate.

43. (AFIP 6.3.13(2)(i)) – Provide a proposed decommissioning schedule within the applicant’s decommissioning plan.
44. (AFIP 6.3.13(5)(i)) – Provide details regarding the type and manner of financial assurance the developer plans to provide within the applicant’s decommissioning plan.

**Exhibit 14 – (Conditions)**

45. (AFIP 6.3.14(a) and Attachment F(2)) - Preconstruction Meeting  
The proposed condition does not confirm that the applicant will agree to file the final drawings, plans, and permits received into the case docket prior to the start of construction. Provide a condition which includes this agreement, or explain why this condition should not be applied to the facilities.
46. (AFIP 6.3.14(a) and Attachment F(10)) - Post Construction Sound Report  
Confirm that the applicant agrees to file post-construction sound measurements in accordance with MPSC Sound guidance into the case docket or explain why this condition should not be applied to the facilities. Confirm that the post-construction sound measurements will comply with AFIP Attachment D-4.2, and will accordingly be filed to the case docket within 60 days of measurements, or explain why this condition should not be applied to the facilities.
47. (AFIP 6.3.14(a) and Attachment F(16)) - Decommission Agreement  
The applicant’s narrative discusses the terms of its decommissioning agreement, but regarding Condition 16, does not provide sufficient further information. Provide a proposal to execute a decommissioning agreement approved by the Commission, including a commitment to execute the decommissioning agreement, or explain why this condition should not be applied to the facilities.

# EXHIBIT I

Ranger Power, since you were not able to attend the Cohoctah Township Planning Commission meeting of August 7, 2025, where your application was to be reviewed and discussed, and because you have not followed up on numerous items you promised to provide on July 29, 2025, (for example the 1,000 page glare study), the Planning Commission has put in writing questions they had for answer at our September 4, 2025 planning commission meeting, where your application will again be reviewed.

### **Question 1**

Atwell Memo: Solar Array Runoff – Effects from Change in Land Use / Ground Cover

1. Can you provide a document from the LCDC that shows their concerns for the project area?
2. Does the LCDC agree with your proposed stormwater management approach?

### **Question 2**

Atwell Memo: Solar Array Runoff - Water Quality Compliance via Impervious Disconnection

1. "A preliminary plan would summarize the specific criteria to be included in the final design to meet WQ compliance, based on guidelines set forth by one of the referenced state agencies. The preliminary plan will include a project map identifying areas of specific concern to the Drain Office (nearby residences or drains with substandard capacity), and areas where runoff should be analyzed during final design to mitigate potential increases (proposed parking, buildings, substation equipment areas, etc.). " Do we have this preliminary plan? If so, please direct us to it.
2. Is this memo stating that if we simply "disconnect" long rows of panels the land will not experience a problem with run-off?

### **Question 3**

Glare Study

We are not able to open the link. We still are waiting for 15 flash drives and one paper copy of the glare study for our clerk.

### **Question 4**

Emergency Response Plan. Please provide an amended plan to include all new proposed equipment and detailed response from EMS to Headland Solar's plans, if any exist.

### **Question 5**

Fire Response

- 1) Is there an evacuation plan? If so, what is the radius?
- 2) How long does it take to shut off the power if there is a fire? Can we get a detailed timeline?
- 3) What kind of chemicals will be used? Will they be what the fire department needs to combat the fire?

### **Question 6**

Stray Voltage Assessment: Is there one? If yes, please direct us to it.

### **Question 7**

Noise. Sound mitigation. 271 homes within ½ mile of the project with only 2 participating parcels. Meaning, 269 non-participating parcels are affected. 20 of the 271 houses are within the 52 to 55db. What are the specific plans to be a good neighbor and reduce these sound levels? Will Headland commit to reducing the maximum sound level to 45db?

### **Question 8**

Cultural Significance

Regarding the memorandum to Ms. Martha Macfarlane-Faes, Deputy State Historic Preservation Officer. It states that two cultural resources within or near the project's footprint were identified. Please identify the cultural resources, and locate on prints in regards to distance and proximity to the project proposed footprint or where this is located in your application.

Was there a response from the DSHP Office? Or was there any follow up attempted that's not listed within this application?

### **Question 9**

In section 2: Solar Energy Facility Siting Certification Application, page 21 (of 50), subsection 6, Submit a Pre-construction Sound Monitoring Protocol in accordance with the guidance, it is stated in the summary that: "The nearest inverter to a non-participating residence is approximately 415 feet." Can you please:

1. Identify the property of the non-participating residence at 415 feet from an inverter?
2. Identify said property on the prints included in Exhibit A-1.1 06 through 23
3. Identify said property in Exhibit A-1.7: Sound Report and Modeling Protocol
  - a. Locate property and correlating Receptor Number

- b. Locate property by receptor number in Appendix B: Predicted Noise Levels in Graphs B-1 through B-8
  4. Identify said property by Receptor number in Appendix C: Predicted Noise Levels Contour
    - a. Including corresponding Print number regarding prints C-1 through C-6  
Looking at Exhibit A-1.7: Sound Report and Modeling Protocol, while cross referencing the receptor locations, the predicted Noise Levels of Appendix B and the inverter distancing in Exhibit A-1.1 prints 06 through 23, I am confused at the following:
      1. Receptor # 459 is
        - a. 1011 feet from an inverter according to Exhibit 1-1.1print #07
        - b. 53 dB according to Exhibit A-1.7 Appendix B graph B-6
      2. Receptor #260 is
        - a. 992' from an inverter according to Exhibit 1-1.1 print # 09
        - b. 55 dB according to Exhibit A-1.7 Appendix B graph B-5
      3. Receptor # 77 is
        - a. 758 feet from an inverter according to Exhibit 1-1.1 print # 08
        - b. 55 dB according to Exhibit A 1.7 Appendix B graph B-2

In summary, the distance between receptors # 459 and #260 from an inverter is a difference of 19 feet resulting in a 3 dB difference between receptors # 459 and # 260. The distance between receptor #260 and # 77 from an inverter is a difference of 234 feet resulting in 0 difference of dB, between receptors # 260 and #77, both sitting exactly at 55db, which is the highest allowable dB at an outside wall of any non-participating residence required by Public Act 233.

My questions are:

1. Can you explain the discrepancy between the distancing of receptors from inverters and resulting dB inconsistencies.
2. How can you do a sound analysis without identifying the inverter brand?
3. Will Ranger Power commit to using inverters, similar to what you are doing in your Calhoun project as described by Toby?

### **Question 10**

Removal of all buried cables, conduits, and foundations is required according to your application to restore the land during decommissioning. At Conway Township's meeting you indicated a property owner could agree to leave the cables, conduits, and foundations in the ground below three feet. You indicated to the Cohoctah Planning Commission, this would only occur if we're given leniency. Will you actually remove all cables, conduit, and foundations as stated in your application?

### **Question 11**

Why has Ranger Power not looked at building a solar facility on Brownfields first?

### **Question 12**

You stated at the July 29 special meeting that if this project causes flooding on nonparticipating property, you would take care of it. Where will this be stated in your application?

### **Question 13**

At the July 29 Planning Commission Special Meeting you stated that Ranger Power is not in the business of buying property, to a question whether Ranger Power would buy a property at fair market value if it could not be sold. Does Ranger Power, Headland Solar, or any other entity it owns or has a controlling interest in, own any property in the Headland Solar development area or within one-half mile of the development?

### **Question 14**

How can you return the land to its original condition during decommissioning if you have not done a soil analysis before construction? A soil analysis is required to do so.

### **Question 15**

I have a concern regarding the insufficient detail provided in the Headland Solar permit application related to drainage and runoff management within the proposed industrial solar facility.

Reference: Section 30, Exhibit A-6.4, Stormwater Mitigation Plan

Reference: Drawing sheet 1 of 11, storm water run-off areas

Reference: Drawing Sheet 29, Crossings and Access Road Details

Reference: email from Headland Solar dated 08/08/25

Atwell memos

- o Solar Array Runoff - Effects from Change in Use/Ground Cover
- o Water Quality Compliance via Impervious Disconnection.

From the additional information provided by Atwell/Ranger Power, I understand that a correction factor is being applied based on soil composition and the planned pollinator plantings within the facility. However, key details remain unclear and prevent a full assessment of the site's impact on water flow and surrounding land.

To better assess the potential impact, I request clarification on the following:

Solar Panel Coverage

Could you please provide the approximate number of panels planned for the entire facility, and more specifically for the Cohoctah portion of the project?

· Each panel measures 2.55 m<sup>2</sup> (27.5 sq ft)

- I used a baseline of 1,500 panels per acre in preliminary calculations
- The Cohoctah section is referenced as having a capacity of 107 MW

Using those assumptions, I performed a basic calculation of the surface area covered by the proposed solar panel arrays. Based on recent data from WeatherUnderground.com, several one-inch+ rainfall events occurred in 2024:

- June 5 – 1.04"
- June 19 – 1.26"
- June 21 – 1.56"

A 1" rainfall event could potentially channel 4 million gallons or more from the solar panel surfaces alone in Cohoctah Township. Regardless of tilt direction, the panels will shed water similarly to gutters, leading to channelized flow throughout the facility. In addition, a comparable volume of runoff is expected from the Conway Township portion of the industrial solar facility. This water will enter the shared drainage system and ultimately contribute to the total stormwater runoff affecting Cohoctah, compounding the overall impact.

#### Access Roads

Using the provided specs:

- 27,123 linear feet x 20 feet wide x 8" depth of compacted 21-AA gravel
- Total surface area: approx. 542,460 sq ft

Even with partial absorption accounted for, my conservative calculations suggest that a 1" rainfall event could add another 300,000 gallons of runoff from these roads alone—due to their impervious nature compared to farmland or planted vegetation.

#### Formal Request for Documentation

Given these calculations, I find the drainage and water management sections of the current application to be incomplete. I am formally requesting that Ranger Power provide the following:

1. A detailed runoff calculation assessing water volume from 1", 1.5", and 2" rainfall events, must include the total water volume estimates for both townships.
2. A site plan or engineering drawing clearly showing the locations and capacities in gallons of retention ponds, drainage infrastructure, or other measures intended to manage stormwater runoff from solar panel arrays and access roads.

Thank you for your attention to these critical issues. I look forward to a prompt and thorough response, including documentation that fully addresses these concerns and clarifies how stormwater will be effectively managed across the project site.

## Question 16

I am writing to express concern regarding the incomplete information provided about the potential presence of Blanding's Turtle habitat within the proposed solar array area in Cohoctah Township.

Reference Section 28, Exhibit A-6.2: Environmental Compliance Report

Blanding's Turtles are listed as a Species of Special Concern by the Michigan Department of Natural Resources (MDNR). Although not currently listed as endangered, they are under increasing threat, and their populations continue to decline. In fact, the U.S. Fish and Wildlife Service is expected to make a determination in 2025 on whether to add the Blanding's Turtle to the federal endangered species list.

Livingston County is a significant location for this species, with 27 documented occurrences as of 2024, making it the third highest county in the entire state of Michigan. Notably, the oldest known Blanding's Turtle in Michigan—recorded at 90 years old (3R11L)—was found in Livingston County, Pinckney Area.

Given these facts, I find the information in the Headland Solar permit application to be insufficient in addressing whether the proposed development area includes suitable habitat for the Blanding's Turtle. Furthermore, if such habitat is present—which I believe to be the case—there appears to be no risk mitigation plan included in the application.

I am formally requesting that Ranger Power provide the following:

1. A comprehensive assessment—conducted by a qualified biologist or ecologist—confirming whether or not Blanding's Turtle habitat exists within the proposed project area.
2. If such habitat is confirmed, a clear and detailed risk mitigation plan outlining how potential impacts to the species and its habitat will be avoided or minimized during and after construction.

Thank you for your attention to this matter. I look forward to a response and updated documentation from Ranger Power addressing these concerns.

<https://mnfi.anr.msu.edu/species/description/11490>

<https://mnfi.anr.msu.edu/species/description/11490/Emydoidea-blandingii>

<https://www.whmi.com/news/article/blandings-turtle-u-of-m-edwin-george-reserve-pinckney>

## Question 17

Groundwater analysis. Application does not appear to contain groundwater analysis. Headland Response: The Project will not complete a groundwater analysis as this requirement exceeds the requirements as defined by PA 233.

Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?

### **Question 18**

Security plan. Application does not appear to include a formal security plan.

Headland Response: The Project will not complete a security plan as this requirement exceeds the requirements as defined by PA 233.

Question: How does this requirement exceed PA 233 “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”??

### **Question 19**

Statistical Data. Site plan does not appear to include the following required information: total number of structures, total number of units, total square feet, total gross and usable floor area, total carports or garages, employees by shift, the percent of area being developed, the percent of area used for structures, the percent of area left undeveloped. Site Plan does not appear to include the name of the public school district serving the site. Headland Response: The Site Plan submitted to the Township includes all required information and requirements as defined by PA 233.

Question: This information is still required. “An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance.” Section 223(3)(a).

### **Question 20**

Contour Intervals. Site plan does not reflect two-foot intervals, referenced to USGS datum. Headland Response: A site plan was prepared for the Project using the latest edition of USGS maps, GIS mapping, and preliminary ALTA surveys and includes all required information and requirements as defined by PA 233.

Question: This information is still required. “An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance.” Section 223(3)(a).

### **Question 21**

Registered Designs Application does not appear to contain signatures and/or seals for drawings, engineering estimates and special cost estimates. Headland Response The

Site Plan submitted to the Township is preliminary, and therefore, not certified. Details on engineering estimates and special cost estimates are outside of the Project's application requirements as defined by PA 233.

Question: This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

### **Question 22**

Decommissioning and land reclamation. The decommissioning plan and proposed decommissioning agreement do not appear to provide evidence of proposed commitments with property owners. Headland Response Details regarding proposed commitments with property owners are confidential. The Project's proposed Decommission Plan is provided in Exhibit A-13.1 of the application and sufficiently addressed the decommissioning requirements as defined by PA 233.

Question: This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

### **Question 23**

Indemnification. Application does not appear to include required attestations of indemnification. Headland Response This exceeds the requirements as defined by PA 233 and will not be provided.

Question: How does this exceed PA 233. This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

### **Question 24**

Manufacturer's directions or instructional manual. Application does not appear to include these materials. Headland Response This exceeds the requirements as defined by PA 233 and will not be provided.

Question: How does this requirement exceed PA 233. This information is still required. "An affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance." Section 223(3)(a).

### **Question 25**

Construction hours do not comply with Township Solar Ordinance. Provide documentation for compliance.

**Question 26**

Provide where in the application the wildlife corridors for every fenced area?

**Question 27**

What discussions have you had with DTE on siting a connection to the grid? What discussions have you had with MISO on siting a connection to the grid. Are you able to share with us your application and all correspondence?

**Question 28**

ITC is proposing a switching station in our overlay district on Gannon Road, between Fleming and Antcliff. What would this do to your proposed interconnection location?

**Question 29**

Does Ranger Power have any information, or been in contact with ITC on the route the new power lines will take to connect to the new switching station? What would this do to your proposed project?

**Question 30**

How will Headland Solar protect the eagles in the project area?

**Question 31**

Noise pollution is a major concern, especially for those nonparticipating parcels. Your sound analysis shows 202 parcels with decibel levels of 46 to 55 decibels. We hear often that the industry wants to work with communities. Reducing the decibel levels for nonparticipating parcels and improving the visual impact would go a long way in establishing a good neighbor relationship. Is there any way that Headland Solar could achieve sound mitigation by establishing an open-air sound barrier using acoustic absorbing sound panels around the inverters and power generating equipment? The same for better screening options to reduce the visual impact? As I understand from our Supervisor, Headland Solar has stated they are not willing to do any sort of mitigation because PA 233 says you can. I would hope that you could do better to be a good neighbor in our community.

**Question 32**

Exhibit A-1.6 Changes. Maps do not clearly show precise locations of proposed changes. Please provide location for each change.

### **Question 33**

Several of the proposed changes contain language like "The Application may consider the option of removing the section of panels, as shown below, for construction feasibility." This depends, as is explained in the change, if the project can achieve its target energy capacity. See changes, 2-7. So, do you know if this change is currently necessary? When would you know? Is this proposed change premature?

### **Question 34**

Change 8 speaks of discussions with various parties, which included representatives from a solar energy project that is proposed in close proximity to Headland Solar. What was the discussion about and with what various parties? We know that DTE is one of these parties. What was the decision made with these discussions? Where will the interconnection point for this application? What project is proposed in close proximity to Headland Solar?

### **Question 35**

Changes 9-12 states that many changes require confirmation of the regulatory status of wetland from EGLE for those wetlands not regulated by EGLE will be minimized to the extent practicable? What exactly are you saying here? Have you taken into account Cohoctah Townships regulations for non-regulated wetlands?

### **Question 36**

Fire Safety: At the Conway Township meeting you indicated that you would be installing at your own cost an 8-inch hydrant along Owosso Rd.

1. Is this correct?
2. How close will this be to your proposed building in the development?
3. Will your proposed project meet or exceed the standards in 855 of the NFPA?
4. Will the fire safety standards provide 24/7 monitoring of the proposed project either on-site or remote?
5. Will the project provide access to both Howell and Fowlerville Fire Departments to allow depowering of the facility or specified sections, to allow fire fighters to fight any fires or other emergencies?

### **Question 37**

As you are aware, sound is a big problem for nonparticipating property owners. Although PA 233 sets a standard of 55 dB at the outer wall of a house, DTE in Iosco

Township is proposing a standard of 45 dB at the fence line. Would Ranger Power, in the interest of being a good neighbor, be willing to provide a sound level of 45 dB at the outer wall of a nonparticipating house? What are you willing to do so that the 202 parcels above 45 dBs are not impacted with health issues?

### **Question 38**

Complaint process: Provide procedures for regular reporting of each complaint, and how each complaint was resolved to either the township or the MPSC?

### **Question 39**

Environmental Questions: Based upon the MPSC response of August 1, 2025 to the Acceleration Solar application being incomplete, # 27-35, please update your application to provide the information listed as missing by the MPSC in writing to the planning commission.

### **Question 40**

No project labor agreements are provided. Please provide.

### **Question 41**

Your application fails to provide soil analysis so that when the land is decommissioned it can be restored. Please provide a current soil analysis.

### **Question 42**

There is no mention on the manner of the financial guarantee for decommissioning. Please provide.

### **Question 43**

Given the lack of information in your application to both townships, see our letters of May 30, 2025 incompleteness of the application, and based on the incompleteness of your Acceleration Solar Application to the MPSC and the missing information in that application, and further, that to submit an application to the MPSC that is different than the application you submitted to us for review, would be patently unfair and unethical, would Ranger Power be willing to withdraw their application and then resubmit when you have the required completed application and information? Are you willing to extend the date for a final decision to December 5, 2025?



Headland Solar, LLC  
320 N Sangamon St. #1025  
Chicago, IL 60607

September 3, 2025

Cohoctah Township  
Attn: Planning Commission Chair Buttermore,  
10518 Antcliff Rd.  
Fowlerville, MI 48836

Re: List of Requested Questions from Cohoctah TWP Planning Commission

Planning Commission Chair Buttermore,

In response to your letter sent on August 28, 2025 via email, related to the Planning Commission's questions offered during the August 19, 2025, meeting, we offer the response below.

Sincerely,

Headland Solar, LLC



Cohoctah Township Question 1	<p>Solar Array Runoff</p> <ol style="list-style-type: none"> <li>1. Can you provide a document from the LCDC that shows their concerns for the project area?</li> <li>2. Does the LCDC agree with your proposed stormwater management approach?</li> </ol>
Headland Response	Refer to Summary of Agency Consultation in <b>Exhibit A-4.4</b> for summary of coordination with LCDC.

Cohoctah Township Question 2	<p>Solar Array Runoff</p> <ol style="list-style-type: none"> <li>1. Do we have this preliminary plan? If so, please direct us to it.</li> <li>2. Is this memo stating that if we simply “disconnect” long rows of panels the land will not experience a problem with run-off?</li> </ol>
Headland Response	Refer to the Minimize, Mitigate, and Repair Plan in <b>Exhibit A-1.3</b> for a summary of measures implemented to minimize / avoid stormwater impacts. Additionally, this plan describes Headland Solar’s plan for mitigation in the event of damage during construction

Cohoctah Township Question 3	We are not able to open the link. We still are waiting for 15 flash drives and one paper copy of the glare study for our clerk.
Headland Response	15 flash drives of the glare study have been sent to the Township.

Cohoctah Township Question 4	Emergency Response Plan. Please provide an amended plan to include all new proposed equipment and detailed response from EMS to Headland Solar’s plans, if any exist.
Headland Response	<p>All information regarding the Emergency Response Plan required of PA 233 at this time is listed in the application, <b>Exhibit A-1.9</b>.</p> <p>Please also refer to the Summary of Agency Consultations in <b>Exhibit A-4.4</b>.</p>



Cohoctah Township Question 5	<p>Fire Response</p> <ol style="list-style-type: none"> <li>1. Is there an evacuation plan? If so, what is the radius?</li> <li>2) How long does it take to shut off the power if there is a fire? Can we get a detailed timeline?</li> <li>3) What kind of chemicals will be used? Will they be what the fire department needs to combat the fire?</li> </ol>
Headland Response	<p>All information regarding the Fire Response Plan required of PA 233 at this time is listed in the application, <b>EXHIBIT A-1.9 – Emergency Response Plan and Exhibit A-1.10 - Fire Response Plan</b></p> <p>A detailed timeline regarding power shutoff is not available at this time.</p>
Cohoctah Township Question 6	Stray Voltage Assessment: Is there one? If yes, please direct us to it.
Headland Response	The project will not complete a stray voltage assessment as this requirement exceeds the requirements as defined by PA-233.
Cohoctah Township Question 7	What are the specific plans to be a good neighbor and reduce these sound levels? Will Headland commit to reducing the maximum sound level to 45db?
Headland Response	Headland will not exceed 55 decibels (average hourly) at the nearest wall of nonparticipating properties, in accordance with MCL 460.1226(8)(a)(iv) noise limits.
Cohoctah Township Question 8	<p>Please identify the cultural resources, and locate on prints in regards to distance and proximity to the project proposed footprint or where this is located in your application.</p> <p>Was there a response from the DSHP Office? Or was there any follow up attempted that’s not listed within this application?</p>
Headland Response	<p>Please clarify what exactly is being requested.</p> <p>The extent of the available correspondence with DSHP Office is included in the application.</p>



Cohoctah Township Question 9	<p>My questions are:</p> <ol style="list-style-type: none"> <li>1. Can you explain the discrepancy between the distancing of receptors from inverters and resulting dB inconsistencies.</li> <li>2. How can you do a sound analysis without identifying the inverter brand?</li> <li>3. Will Ranger Power commit to using inverters, similar to what you are doing in your Calhoun project as described by Toby?</li> </ol>
Headland Response	<p>Please clarify what discrepancies you are referring to.  Refer to <b>Exhibit A-1.7 - Executive Summary</b>  Final inverter selection has not yet been determined.</p>

Cohoctah Township Question 10	<p>Will you actually remove all cables, conduit, and foundations as stated in your application?</p>
Headland Response	<p>The project will comply with all required decommissioning obligations.</p>

Cohoctah Township Question 11	<p>Why has Ranger Power not looked at building a solar facility on Brownfields first?</p>
Headland Response	<p>Please refer to <b>Exhibit A-1.5 – Alternatives.</b></p>

Cohoctah Township Question 12	<p>You stated at the July 29 special meeting that if this project causes flooding on nonparticipating property, you would take care of it. Where will this be stated in your application?</p>
Headland Response	<p>A Complaint Resolution Process for the site has been established and is detailed in <b>Exhibit A-1.16</b></p>

Cohoctah Township Question 13	<p>Does Ranger Power, Headland Solar, or any other entity it owns or has a controlling interest in, own any property in the Headland Solar development area or within one-half mile of the development?</p>
Headland Response	<p>Please clarify what this request pertains to as it related to Headland’s application.</p>



Cohoctah Township Question 14	How can you return the land to its original condition during decommissioning if you have not done a soil analysis before construction? A soil analysis is required to do so.
Headland Response	The site restoration section details steps to return the land to a state similar to its pre-construction condition, following PA 116 requirements.

Cohoctah Township Question 15	<p>Could you please provide the approximate number of panels planned for the entire facility, and more specifically for the Cohoctah portion of the project?</p> <p>I am formally requesting that Ranger Power provide the following:</p> <ol style="list-style-type: none"> <li>1. A detailed runoff calculation assessing water volume from 1”, 1.5”, and 2” rainfall events, must include the total water volume estimates for both townships.</li> <li>2. A site plan or engineering drawing clearly showing the locations and capacities in gallons of retention ponds, drainage infrastructure, or other measures intended to manage stormwater runoff from solar panel arrays and access roads.</li> </ol> <p>Thank you for your attention to these critical issues. I look forward to a prompt and thorough response, including documentation that fully addresses these concerns and clarifies how stormwater will be effectively managed across the project site.</p>
Headland Response	<p>There are approximately 500,015 PV modules included in the Project’s site plan, of which approximately 230,000 (46%) are in Cohoctah Township.</p> <p>Detailed stormwater calculations have not yet been prepared for the Project, given its preliminary nature.</p>

Cohoctah Township Question 16	<p>I am formally requesting that Ranger Power provide the following:</p> <ol style="list-style-type: none"> <li>1. A comprehensive assessment—conducted by a qualified biologist or ecologist—confirming whether or not Blanding’s Turtle habitat exists within the proposed project area.</li> </ol>
-------------------------------	---



	2. If such habitat is confirmed, a clear and detailed risk mitigation plan outlining how potential impacts to the species and its habitat will be avoided or minimized during and after construction.
Headland Response	Please refer to <b>Exhibit A-6.2 – Environmental Compliance Report.</b>

Cohoctah Township Question 17	Groundwater analysis. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?
Headland Response	A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).



Cohoctah Township Question 18	Security Plan. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?
Headland Response	A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).



Cohoctah Township Question 19	Statistical Data. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?
Headland Response	A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).



Cohoctah Township Question 20	Contour Intervals. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?
Headland Response	A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).



Cohoctah Township Question 21	Registered Designs Application. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?
Headland Response	A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).



Cohoctah Township Question 22	Decommissioning and land reclamation. Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?
Headland Response	A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).



Cohoctah Township Question 23	<p>Indemnification.</p> <p>Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?</p>
Headland Response	<p>A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).</p>



Cohoctah Township Question 24	<p>Manufacturer’s Direction or instructional manual.</p> <p>Question: How does this requirement exceed PA 233, in light of Section 223(3)(a), which states in part that “[a]n affected local unit may require other information necessary to determine compliance with the compatible renewable energy ordinance”?</p>
Headland Response	<p>A compatible renewable energy ordinance “means an ordinance . . . , the requirements of which are no more restrictive than the provisions included in section 226(8).” MCL 460.1221(f) (defining compatible renewable energy ordinance). Section 226(8)(a) contains limited requirements for setbacks, fencing requirements under the National Electric Code, solar panel height, sound, and dark-sky friendly lighting solutions. MCL 460.1226(8)(a). An ordinance requiring items more restrictive than those contained in Section 226(8) is not a compatible renewable energy ordinance. This request for information is neither helpful nor necessary to determining compliance with the requirements set forth in Section 226(8). The Application is fully compliant with Section 226(8). An energy facility that is compliant with Section 226(8) “does not present an unreasonable threat to public health or safety.” MCL 460.1226(7)(g).</p>
Cohoctah Township Question 25	<p>Construction hours do not comply with Township Solar Ordinance. Provide documentation for compliance.</p>
Headland Response	<p>This request exceeds the requirements as defined by PA-233.</p>
Cohoctah Township Question 26	<p>Provide where in the application the wildlife corridors for every fenced area?</p>
Headland Response	<p>This request exceeds the requirements as defined by PA-233.</p>



Cohoctah Township Question 27	What discussions have you had with DTE on siting a connection to the grid? What discussions have you had with MISO on siting a connection to the grid. Are you able to share with us your application and all correspondence?
Headland Response	Headland Solar established Queue Position J2139 in the MISO Interconnection Queue in July 2021 and is in the DPP-2021-East-ITC study Cluster. The Project will interconnect to the MISO transmission system at the METC-owned 345 kV Blackfoot-Madrid Line, the Point of Interconnection (“POI”).
Cohoctah Township Question 28	ITC is proposing a switching station in our overlay district on Gannon Road, between Fleming and Antcliff. What would this do you your proposed interconnection location?
Headland Response	This request exceeds the requirements as defined by PA-233 and is irrelevant to the Township’s evaluation of Headland’s application.
Cohoctah Township Question 29	Does Ranger Power have any information, or been in contact with ITC on the route the new power lines will take to connect to the new switching station? What would this do to your proposed project?
Headland Response	This request exceeds the requirements as defined by PA-233 and is irrelevant to the Township’s evaluation of Headland’s application.
Cohoctah Township Question 30	How will Headland Solar protect the eagles in the project area?
Headland Response	Please refer to <b>Exhibit A-6.2 – Environmental Compliance Report.</b>



Cohoctah Township Question 31	Is there any way that Headland Solar could achieve sound mitigation by establishing an open-air sound barrier using acoustic absorbing sound panels around the inverters and power generating equipment? The same for better screening options to reduce the visual impact? As I understand from our Supervisor, Headland Solar has stated they are not willing to do any sort of mitigation because PA 233 says you can.
Headland Response	Headland will not exceed 55 decibels (average hourly) at the nearest wall of nonparticipating properties, in accordance with MCL 460.1226(8)(a)(iv) noise limits.
Cohoctah Township Question 32	Exhibit A-1.6 Changes. Maps do not clearly show precise locations of proposed changes. Please provide location for each change.
Headland Response	The map and description of known potential modifications or variations in the proposed Site Plan that are being considered in <b>EXHIBIT A-1.6</b> are in compliance with PA-233.
Cohoctah Township Question 33	See changes, 2-7. So, do you know if this change is currently necessary? When would you know? Is this proposed change premature?
Headland Response	Changes will be finalized prior to the commencement of construction.
Cohoctah Township Question 34	What was the discussion about and with what various parties? We know that DTE is one of these parties. What was the decision made with these discussions? Where will the interconnection point for this application? What project is proposed in close proximity to Headland Solar?
Headland Response	Please refer to <b>Exhibit A-1.6, 8.0</b> for details regarding potential changes to the Project's point of interconnection.



Cohoctah Township Question 35	Changes 9-12 states that many changes require confirmation of the regulatory status of wetland from EGLE for those wetlands not regulated by EGLE will be minimized to the extent practicable? What exactly are you saying here? Have you taken into account Cohoctah Townships regulations for non-regulated wetlands?
Headland Response	Further coordination with EGLE is required to determine the regulatory status of wetlands throughout the Project area, which may impact the current site plan.

Cohoctah Township Question 36	<p>Fire Safety: At the Conway Township meeting you indicated that you would be installing at your own cost an 8-inch hydrant along Owosso Rd.</p> <ol style="list-style-type: none"> <li>1. Is this correct?</li> <li>2. How close will this be to your proposed building in the development?</li> <li>3. Will your proposed project meet or exceed the standards in 855 of the NFPA?</li> <li>4. Will the fire safety standards provide 24/7 monitoring of the proposed project either on-site or remote?</li> <li>5. Will the project provide access to both Howell and Fowlerville Fire Departments to allow depowering of the facility or specified sections, to allow fire fighters to fight any fires or other emergencies?</li> </ol>
Headland Response	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2-5. Further details regarding the Project's proposal to install a hydrant have not yet been determined, as this will require additional coordination with each respective fire department prior to the commencement of construction.</li> </ol>

Cohoctah Township Question 37	Would Ranger Power, in the interest of being a good neighbor, be willing to provide a sound level of 45 dB at the outer wall of a nonparticipating house? What are you willing to do so that the 202 parcels above 45 dBs are not impacted with health issues?
Headland Response	Headland will not exceed 55 decibels (average hourly) at the nearest wall of nonparticipating properties, in accordance with MCL 460.1226(8)(a)(iv) noise limits.



Cohoctah Township Question 38	Complaint process: Provide procedures for regular reporting of each complaint, and how each complaint was resolved to either the township or the MPSC?
Headland Response	Please refer to <b>Exhibit A-1.16 – Complaint Resolution Process</b> .

Cohoctah Township Question 39	Environmental Questions: Based upon the MPSC response of August 1, 2025, to the Acceleration Solar application being incomplete, # 27-35, please update your application to provide the information listed as missing by the MPSC in writing to the planning commission.
Headland Response	Please clarify what question or information is being requested.

Cohoctah Township Question 40	No project labor agreements are provided. Please provide.
Headland Response	Headland Solar will enter into a Project Labor Agreement with one or more labor organizations prior to the commencement of construction. Headland Solar will provide a copy of the Project Labor Agreement once it is finalized.

Cohoctah Township Question 41	Your application fails to provide soil analysis so that when the land is decommissioned it can be restored. Please provide a current soil analysis.
Headland Response	Refer to the Soil and Economic Survey Report available in <b>Exhibit A-6.1</b> .

Cohoctah Township Question 42	There is no mention on the manner of the financial guarantee for decommissioning. Please provide.
Headland Response	Please refer to <b>Exhibit A-13.2 through A-13.3</b> .

Cohoctah Township Question 43	Are you willing to extend the date for a final decision to December 5, 2025?
Headland Response	The mutually agreed-upon final decision date is September 18, 2025. No further extensions will be offered or entertained by Headland.

# EXHIBIT J



September 12, 2025

Cohoctah Township & Conway Township  
Attn: Chair Buttermore and Chair Curd  
10518 Antcliff Road  
Fowlerville, MI 48836

*via email*

RE: Headland Solar Development, Livingston County, Michigan

Chair Buttermore and Chair Curd:

Thank you for inviting DESRI to Conway and Cohoctah's joint planning commission meeting on September 9, 2025. We hope each planning commission found the discussion to be valuable and informative. There are a handful of items discussed during the meeting that we indicated we would follow up on in the coming days. Please find DESRI's responses to these items below.

Sincerely,

A handwritten signature in blue ink that reads "Aileen Kenney".

Aileen Kenney  
Principal, Project Development and Permitting



1. There was an inquiry about the sound requirements of Ranger Power's Acceleration Solar Project, and the extent to which the sound requirements differ from the Headland Solar Project.

RESPONSE: Acceleration Solar and Headland Solar have both been designed to ensure that sound levels generated by each Project will not exceed fifty-five (55) decibels (dB) (average hourly) at the nearest wall of any non-participating dwelling, as required by PA-233.

2. There was an inquiry about DESRI's experience with 'nuisance deer' and resulting impacts to neighboring farmers on the Assembly Solar Project.

RESPONSE: DESRI has no knowledge of nuisance deer issues at Assembly Solar that have been raised by neighboring farmers. Deer have been seen traversing across and grazing within Assembly Solar despite the game fence encompassing the site.

3. There was an inquiry about an electrocuted deer at Assembly Solar being brought to a nearby deer processing plant.

RESPONSE: DESRI's asset manager, who has managed Assembly Solar for nearly two years, confirmed with the operations and maintenance contractor, who has maintained the project for almost a year and a half, that no electrocuted deer have been found within the project fence.

4. A concern was raised regarding Assembly Solar's compliance with Michigan State's Pollinator Scorecard Compliance.

RESPONSE: Assembly Solar was designed, constructed, and is maintained to be within compliance of Michigan State's Pollinator Scorecard, as it relates to MDARD's PA-116 program.

5. Several inquiries were made regarding an unnamed landowner that has experienced issues contacting representatives of Assembly Solar to discuss concerns related to site drainage.

RESPONSE: Assembly Solar has been responsive to landowner inquiries throughout development, construction, and operations of the Project. Contact information for a Project representative was made available to local government officials. DESRI remains committed to maintaining open lines of communication with all members of the community.

6. A question was raised regarding the timeframe in which inverters at Assembly generate sound.

RESPONSE: Assembly's inverters are programmed to operate while the Project is generating electricity in daytime hours. Converting the Direct Current (DC) electricity from the solar array to Alternating Current (AC) within the inverter creates significant amounts of heat. Cooling fans may remain on for up to two hours after generation stops to protect equipment in accordance with Original Equipment Manufacturer specifications.



7. Supervisor Brown noted that Assembly Solar’s approved site plan deviates from the Project’s final design and inquired about why this was the case.

RESPONSE: It is typical that Projects receive discretionary land use approval and preliminary site plan concurrently, which was the case for Assembly Solar in Shiawassee County. Based on the special land use process, an Applicant is afforded the ability to make non-substantive modifications and adjustments to the Project’s preliminary site plan as the development progresses, and a final site plan is developed and approved, which is what occurred with Assembly Solar.

8. A question was raised if NETA maintenance testing was being conducted at DESRI’s Assembly Solar Project.

RESPONSE: DESRI’s contract with its operations and maintenance provider dictates following prudent operating and maintenance standards. NETA testing of specific components, primarily located in a project’s substation, routinely take place in accordance with NETA specifications and requirements.