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**OSHTEMO CHARTER TOWNSHIP
PLANNING COMMISSION MEETING**

**OSHTEMO TOWNSHIP HALL
7275 WEST MAIN STREET***

**THURSDAY, AUGUST 13, 2026
6:00 P.M.**

AGENDA

1. Call to Order
2. Pledge of Allegiance
3. Approval of Agenda
4. Approval of Minutes: July 23, 2026 Meeting ([Pg 3](#))
5. **Work Item: Draft One – Energy Systems Ordinance**
Planning Commission to commence review of working draft of an Energy Systems ordinance addressing solar, wind and energy storage. ([Pg 7](#))
6. Public Comment
7. Planning Commissioner Comments
8. Other Updates and Business
9. Adjournment

* Alternate meeting venues are being investigated; if the meeting is moved, proper notice will be provided via social media and on the Township's website.

This meeting is being streamed live on the Public Media Network website and app and recorded for watching on-demand. It is also broadcast on Spectrum and AT&T community access channels.

Policy for Public Comment
Township Board Regular Meetings, Planning Commission & ZBA Meetings

All public comment shall be received during one of the following portions of the Agenda of an open meeting:

- a. Citizen Comment on Non-Agenda Items or Public Comment – while this is not intended to be a forum for dialogue and/or debate, if a citizen inquiry can be answered succinctly and briefly, it will be addressed or it may be delegated to the appropriate Township Official or staff member to respond at a later date. More complicated questions can be answered during Township business hours through web contact, phone calls, email (oshtemo@oshtemo.org), walk-in visits, or by appointment.
- b. After an agenda item is presented by staff and/or an applicant, public comment will be invited. At the close of public comment there will be Board discussion prior to call for a motion. While comments that include questions are important, depending on the nature of the question, whether it can be answered without further research, and the relevance to the agenda item at hand, the questions may not be discussed during the Board deliberation which follows.

Anyone wishing to make a comment will be asked to come to the podium to facilitate the audio/visual capabilities of the meeting room. Speakers will be invited to provide their name, but it is not required.

All public comment offered during public hearings shall be directed, and relevant, to the item of business on which the public hearing is being conducted. Comment during the Public Comment Non-Agenda Items may be directed to any issue.

All public comment shall be limited to four (4) minutes in duration unless special permission has been granted in advance by the Supervisor or Chairperson of the meeting.

Public comment shall not be repetitive, slanderous, abusive, threatening, boisterous, or contrary to the orderly conduct of business. The Supervisor or Chairperson of the meeting shall terminate any public comment which does not follow these guidelines.

(adopted 5/9/2000)
(revised 5/14/2013)
(revised 1/8/2018)

Questions and concerns are welcome outside of public meetings during Township Office hours through phone calls, stopping in at the front desk, by email, and by appointment. The customer service counter is open from Monday-Thursday, 8 a.m.-1 p.m. and 2-5 p.m., and on Friday, 8 a.m.-1 p.m. Additionally, questions and concerns are accepted at all hours through the website contact form found at www.oshtemo.org, email, postal service, and voicemail. Staff and elected official contact information is provided below. If you do not have a specific person to contact, please direct your inquiry to oshtemo@oshtemo.org and it will be directed to the appropriate person.

Oshtemo Township Board of Trustees

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Clerk

Dusty Farmer 216-5224 dfarmer@oshtemo.org

Treasurer

Clare Buszka 216-5260 cbuszka@oshtemo.org

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Neil Sikora 760-6769 nsikora@oshtemo.org

Kristin Cole 375-4260 kcole@oshtemo.org

Zak Ford 271-5513 zford@oshtemo.org

Michael Chapman 375-4260 mchapman@oshtemo.org

Township Department Information

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Greg McComb 375-0487 gmccomb@oshtemo.org

Ordinance Enforcement:

Alan Miller 216-5230 amiller@oshtemo.org

Parks Director:

Vanessa Street 216-5233 vstreet@oshtemo.org

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Planning Director:

Jodi Stefforia 375-4260 jstefforia@oshtemo.org

Public Works Director:

Anna Horner 216-5228 ahorner@oshtemo.org

**OSHTEMO CHARTER TOWNSHIP
PLANNING COMMISSION
MINUTES OF A MEETING HELD JULY 23, 2026**

AGENDA

WORK SESSION: RESIDENTIAL ZONING USES AND STANDARDS

WORK SESSION: ENVIRONMENTAL PROTECTION ORDINANCE RESTRUCTURING

A meeting of the Oshtemo Charter Township Planning Commission was held Thursday, July 23, 2026, commencing at 6:00 p.m. at the Oshtemo Township Hall, 7275 West Main Street.

MEMBERS PRESENT: Michael Chapman, Township Board Liaison
Grace Engels
Deb Everett, Vice Chair
Alistair Smith, Chair
Jeremiah Smith (arrived approximately 6:04 p.m.)
Ron VerPlanck

MEMBERS ABSENT: Scot Jefferies

Also present were Jodi Stefforia, Planning Director; James Porter, Township Attorney; Leeanna Harris, Planning and Zoning Administrator; Colten Hutson, Zoning Administrator; Anna Horner, Public Works Director; Jennifer Wood, Recording Secretary; and approximately 35 members of the public.

CALL TO ORDER AND PLEDGE OF ALLEGIANCE

At 6:00 p.m., Chair A. Smith called the meeting to order. Those in attendance joined in reciting the Pledge of Allegiance.

APPROVAL OF AGENDA

Chair A. Smith introduced the agenda and asked if there were any additions or modifications. There were none.

Trustee Chapman made a motion to approve the agenda as presented. Vice Chair Everett supported the motion. The motion passed unanimously.

APPROVAL OF THE MINUTES FROM THE MEETING OF JUNE 25, 2026

Chair A. Smith asked if there were any additions, deletions, or corrections to the minutes of the June 25, 2026, meeting. There were none.

Trustee Chapman made a motion to approve the Minutes of June 25, 2026, meeting as presented. Vice Chair Everett supported the motion. The motion passed unanimously.

Chair A. Smith explained that the next two agenda items were work-session items intended to provide the Planning Commission with information and an opportunity for discussion. Public comments would be received following the work session.

WORK SESSION: RESIDENTIAL ZONING USES AND STANDARDS

Jason Ball and Sara Morning-Hilt, consultants from Progressive Companies, continued the review of proposed residential zoning updates developed to implement the Oshtemo 2045 Comprehensive Plan and the Township's 2023 Housing Plan. Mr. Ball introduced a revised residential use table of proposed residential uses, including single-family, two-family, townhome, and multi-family. Maps were used to illustrate where the various housing types could be permitted under the proposed zoning framework.

The consultants reviewed proposed residential dimensional and development standards, including for minimum lot area, maximum lot coverage, setbacks, and maximum building height. Mr. Ball noted that the redline changes shared last time has been removed for ease of review but that information is still available which he depicted on a power point slide. Ms. Morning-Hilt provided examples showing how the proposed changes could support gradual infill and a broader range of housing types within existing neighborhoods. She emphasized that zoning changes would not result in immediate redevelopment but would establish standards that could guide development over time.

A significant portion of the discussion focused on minimum lot sizes in the Agricultural and Rural Residential districts. The draft recommendation would increase the current 1.5-acre minimum property size to three acres as a means of directing growth toward locations served by public utilities and reducing development pressure in rural areas. Commissioners discussed whether the five-acre minimum outlined in the Comprehensive Plan would better preserve rural character and indicated general support for further consideration of the larger minimum. The consultants agreed to revise the draft for continued review.

Commissioners asked how existing properties that do not meet the minimum lot size in the future would be treated. The consultants explained that legally established nonconforming lots would remain buildable and that reasonable use of an existing lot could not be eliminated. A home could also be rebuilt if it were destroyed, subject to applicable setback requirements; where those requirements could not be met, relief may be requested from the Zoning Board of Appeals.

The proposed Neighborhood Mixed Use district was also reviewed. As proposed, the district would allow a mix of residential types, including two-family and multi-family dwellings, while retaining requirements for water and sewer connections and appropriate dimensional standards. Commissioners discussed whether townhomes should be permitted throughout Neighborhood Residential areas or limited to locations such as corner lots or particular street types. Setbacks, building placement, and compatibility with surrounding residential development were identified as matters requiring additional refinement.

Discussion also addressed whether duplexes could be allowed on properties without public sewer when the Kalamazoo County Health Department approves a conventional septic system without a variance or exception. The consultants indicated that language could be developed to address this circumstance. The Commission further discussed removing the Residential Conservation district because no property is currently zoned in that classification; open-space development could instead be accommodated through the planned unit development provisions.

The consultants proposed eliminating and reducing supplemental building setbacks currently required where commercial or industrial development abuts residential property but increasing landscape-buffer requirements. This approach would provide a larger vegetation buffer between properties while providing greater flexibility in building placement and ensuring that activities that generate nuisance are still buffered appropriately. Proposed design standards for townhomes and multi-family dwellings were also reviewed, including entrances oriented toward streets and sidewalks, garage placement, façade

transparency, and the use of compatible exterior materials. Proposed amendments to existing language for accessory dwelling units was also discussed.

The Commission provided direction for continued refinement of the residential standards. No formal action was taken. The proposed language will return for additional review before a public hearing is scheduled.

WORK SESSION: ENVIRONMENTAL PROTECTION ORDINANCE RESTRUCTURING

Anna Horner, Public Works Director, introduced the first phase of a comprehensive reorganization of the Township's environmental protection regulations. She explained that related provisions are currently located in both the Zoning Ordinance and General Ordinance, which can make the many requirements difficult to locate and apply consistently. The proposed structure would consolidate the regulations into a standalone environmental protection article of the General Ordinance.

The new article is expected to address provisions for stormwater management; groundwater and wellhead protection; clear and selective cutting; soil erosion and sedimentation control; and natural features. Staff stated that the purpose of the reorganization is not only to improve readability, but also to establish consistent standards that apply throughout the Township rather than only to particular zoning districts or land-use classifications.

Ms. Horner described a performance-based approach under which an activity would be evaluated according to its potential environmental risk and impact. This would allow the Township to consider the nature and intensity of a proposed activity, site conditions, and the protective measures necessary to reduce risk. Consistency with the City of Kalamazoo's groundwater and wellhead protection program was identified as important component of the work.

Commissioners and staff discussed difficulties encountered when existing ordinance language must be applied to conditions or development types not clearly anticipated when the provisions were written. Examples included development on steep slopes, soil erosion concerns, stormwater management, and the need to retrofit or redevelop existing sites. Staff explained that clearer definitions, performance standards, and risk-assessment provisions would make the requirements more comprehensive and adaptable while supporting responsible development.

The Commission discussed the need to balance development with protection of natural resources and public infrastructure. Staff noted that the material presented was an initial review of the first section of the proposed organization and definitions. Additional ordinance sections will be brought forward as they are completed, allowing the Commission to review the provisions in manageable portions and provide direction throughout the drafting process.

No formal action was taken. Once the complete draft has been reviewed and refined, the proposed ordinance will proceed through the required public-hearing process before the Planning Commission and Township Board.

PUBLIC COMMENT

Before opening public comment, Chair A. Smith reminded speakers that the Commission relies on accurate, verifiable information when considering written public input. He noted that comments appearing to rely on artificial intelligence or other outside sources should include citations so the information can be reviewed and verified. He also reviewed the four-minute time limit and the rules for public participation.

Chair A. Smith opened the floor for public comment. Eight individuals spoke. Topics included zoning authority, battery storage, environmental protection, local control, rural character, housing impacts, public safety, and ordinance standards.

Chair A. Smith closed public comments.

OTHER UPDATES AND BUSINESS

Chair A. Smith asked Ms. Stefforia if she had any other updates. Ms. Stefforia indicated that she did not.

ADJOURNMENT

There being no further business, the meeting was adjourned at 7:51 p.m.

Minutes Prepared: July 26, 2026

Minutes Approved:

Memorandum



Date: August 13, 2026
To: Planning Commission
From: Jodi Stefforia, Planning Director
Subject: Draft One – Energy Systems Ordinance

The first working draft of the Energy Systems Ordinance is ready for Planning Commission review. In response to PA 233, the draft ordinance is comprehensive and addresses wind, solar, and energy storage systems.

If the Energy Systems Ordinance is adopted, the existing Zoning Ordinance provisions for wind and solar will be repealed. This approach will allow renewable energy systems – both principal use systems and private accessory-scale systems – to be addressed in one ordinance section rather than in several sections scattered throughout the Zoning Ordinance.

As we begin the substantial task of reviewing the draft language, please keep the following in mind:

- This is a working draft; edits can and will be made before it is finalized.
- Because the draft is 38 pages long, the review should be as systematic as possible. Staff recommends beginning on page 1 and proceeding page by page, rather than moving between sections out of order.
- We can take as many meetings as necessary to review the working draft, receive public comment, and consider suggested edits.
- The Appendices will be included in a future meeting packet. Appendix A is based on MPSC's requirements for a Sound Study. Appendix B will outline the specific requirements for a Fire Response Plan for an energy storage facility, which will be informed by a specific project and site. Appendix C will establish requirements for an Energy Storage System Operation and Maintenance Manual.
- The Planning Commission does not need to become experts in every technical aspect of these systems. If an application for a principal use project is received, a significant escrow will be required as part of the application fee, consistent with the MPSC's fee structure. This escrow would be used to retain subject matter experts to help establish the scope of studies to be completed by the applicant, assist with review of specific aspects of any proposed project and location, and provide other technical support as needed. This is standard practice.
- If the Planning Commission would like subject matter experts on specific elements of the ordinance or technologies to attend a meeting during the text review, please let staff know. Staff can then request Township Board approval of a budget amendment to retain those individuals.

- Although attention has thus far been focused on the west side of the community, the ordinance must consider the entire Township. The language should remain broad enough to apply Township-wide, recognizing that project-specific studies would be required if an application is received. Should an application be received, the scope of those studies would be based on the proposed project location and site-specific conditions.
- Staff used AI as a tool to help identify potential areas where the ordinance could be strengthened to better protect the community. Those AI-generated suggestions were then researched and reviewed for validity before being incorporated or considered.
- The Township already has environmental protection ordinances addressing wetlands, steep slopes, clear cutting, groundwater and wellhead protection, and related topics in various sections of the General Ordinance and Zoning Ordinance. A separate effort is currently underway to consolidate those provisions into a single area of the General Ordinance and, where appropriate, expand them Township-wide.
- After the Planning Commission has reviewed the text and appropriate changes have been made based on Commission discussion and public comment, staff anticipates using a Planning Commission meeting to conduct a mapping exercise before finalizing the draft. Depending on how the text review discussions proceed, staff may recommend moving the mapping exercise earlier in the process.

Maps prepared to date depict the following:

- Sensitive Land Uses, including schools, health care facilities, adult foster care facilities, and childcare facilities within one mile of the Township's borders;
- Natural Features, including the natural features protection district, parks, conservation easements, preserves, and specialty crop farms within one mile of the Township's borders;
- Water resources, including depth-to-groundwater, depth of active wells, waterbodies, wetlands, rivers, ponds, and lakes within one mile of the Township's borders;
- Agriculture, including identified specialty crop farms, qualified agriculture areas, agricultural zoning, and prime farmland;
- Population density;
- Township industrial zoning;
- Township overall zoning.

Energy Systems – Draft One Zoning Ordinance Amendments (August 2026)

Note: Create new Energy Systems Requirements for Special Uses Subsection in Ordinance including replacement of existing Section 60 and Section 49.290 to address utility scale energy storage, solar energy and wind energy systems. Add language for accessory private energy systems as Section 48.170. TBD - zoning districts in which to allow utility scale systems.

Section 49.290 – Energy Systems.

The purpose of this section is to establish minimum requirements and regulations for the construction, erection, placement, location, maintenance, modification, operation, and decommissioning of principal use energy systems and private accessory energy systems in the Township in a manner that promotes economic development and ensures the protection of health, safety, and welfare of the public while also avoiding adverse impacts to important areas such as agricultural lands, residential areas, endangered species habitats, conservation lands, and other sensitive lands.

A. Definitions.

Battery Energy Storage System (BESS): An electrochemical device or assembly that stores energy and is capable of providing that energy to an electrical load. This includes all associated electric, mechanical and fire protection components.

Battery Management System (BMS): The electronic system that manages a rechargeable battery by monitoring its state, calculating secondary data, reporting, protecting the battery, and controlling its environment.

Central Station Monitoring: The monitoring of fire detection system signals by a listed central station service alarm system, as defined by NFPA 72, that receives alarms from the ESS site and provides timely notification to the fire department.

Emergency Operations Plan (EOP): A written plan, developed by the ESS owner or operator, that establishes procedures for ESS personnel to follow during emergency conditions, including safe shutdown, system isolation, and coordination with emergency responders. Required under NFPA 855 § 4.3.2.1.

Emergency Response Plan (ERP): A site-specific written plan satisfying NFPA 855 Annex G, developed in coordination with the Fire Chief that provides first responders with the information and procedures needed to safely manage an ESS incident, including thermal runaway, fire, explosion, and chemical release events. The ERP supplements the EOP and is directed specifically toward emergency responder operations.

Energy Storage System (ESS): A system that absorbs energy, stores it, and discharges it at a later time to provide electrical power or grid services. As used in this ordinance, ESS refers to stationary systems, inclusive of BESS. Energy storage system does not include fossil fuel storage or power-to-gas storage that directly uses fossil fuel inputs.

Energy storage systems are classified as follows:

1. *Energy Storage System, Private Accessory*: An Energy Storage System that is an accessory use that is intended to primarily serve the needs of the consumer on-site. For purposes of this ordinance, an ESS with a capacity greater than 200 kW is considered a principal use.
2. *Energy Storage System, Principal Use*: An Energy Storage System that is a principal use (or co-located with a second principal use) and that is designed and built primarily to connect to the transmission grid but may also serve another principal use(s).

Exposure: Any lot line, public way, building, structure, occupied space, stored combustible material, hazardous material, high-piled stock, or other condition that presents a fire, explosion, or life-safety hazard in proximity to an ESS.

Factory Acceptance Test (FAT): A verification process performed at the manufacturer's facility prior to shipment to confirm that the ESS meets specified performance, safety, and quality requirements.

Fire Mitigation Personnel / Hazard Support Personnel: Qualified personnel, designated by the ESS owner or operator, who possess knowledge of the specific ESS installation and its associated hazards, and who are available to be dispatched to support local emergency responders during an ESS incident.

Fire Response Plan (FRP): As used in this ordinance, Fire Response Plan encompasses both the Emergency Operations Plan (EOP) and the Emergency Response Plan (ERP), together forming the complete framework for ESS incident preparedness and response required by this Section.

IFC: International Fire Code

Leq: The equivalent average sound level for the measurement period.

MISO: The Midcontinent Independent System Operator.

MPSC: The Michigan Public Service Commission.

NFPA: The National Fire Protection Association.

NFPA 70: National Electrical Code.

NFPA 72: National Fire Alarm and Signaling Code.

NFPA 855: Standard for the Installation of Stationary Energy Storage Systems.

Network Operations Center (NOC): A centralized facility staffed by trained personnel with working knowledge of the ESS and site, responsible for 24/7 remote monitoring of the Battery Management System (BMS), alarm notifications, and immediate communication with the site owner/operator and, upon request, the fire department.

Non-Participating Property: Any property that is adjacent to a participating property.

Occupied Community Building: A public library, community center, or other similar building that the applicant knows or reasonably should know is used on a regular basis as a gathering place for

community members. See also Sensitive Land Use.

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

Prime Farmland: Land, as determined by the US Department of Agriculture, Natural Resources Conservation Service Soil Survey Geographic Database (SSURGO), that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses (the land could be cropland, pastureland, rangeland, forest and, or other land, but not urban built-up land or water). It has the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. In general, prime farmlands have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable salt and sodium content, and few or no rocks. They are permeable to water and air. Prime farmlands are not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding. Examples of soils that qualify as prime farmland are Palouse silt loam, 0 to 7 percent slopes; Brookston silty clay loam, drained; and Tama silty clay loam, 0 to 5 percent slopes.

Remote Outdoor Installation: An ESS installed outdoors and located not less than one hundred feet (100 ft) from all buildings, lot lines, public ways, stored combustible materials, hazardous materials, high-piled stock, and other exposure hazards, as defined in IFC § 1207.8.1.

Site Acceptance Test (SAT): a verification process performed at the installation site following commissioning to confirm the ESS operates correctly in its final installed configuration.

Sensitive Land Uses: A use or facility where exposure to SES or ESS related hazards would pose heightened risk, including but not limited to residences, schools, licensed childcare facilities, hospitals, nursing homes, and places of assembly. See also Occupied Community Building.

Solar Energy System (SES): A system that captures and converts solar energy into electricity, for the purpose of sale or for use in locations other than solely the solar energy system property. A solar energy system includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: photovoltaic solar panels; solar inverters; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage systems; overhead and underground control; communications and radio relay systems and telecommunications equipment; utility lines and installations; generation tie lines; solar monitoring stations; and accessory equipment and structures.

Solar Energy Systems are classified as follows:

1. **Solar Energy System, Private Accessory:** A solar energy system with a building-mounted and/or ground-mounted collector array and related apparatus intended to generate electricity only for the premises on which the system is located and in some instances, on neighboring premises, and not primarily for connection to a public utility power grid;

provided, this term is not intended to include a solar energy collector device not exceeding 5 square feet in area.

2. *Solar Energy System, Principal Use:* A Solar Energy System with a name plate capacity of more than 2 megawatts for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

Specialty Crop Farm: Land other than prime farmland that is used for the production of specific high value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality and/or high yields of a specific crop when treated and managed according to acceptable farming methods. Examples of such crops are citrus, tree nuts, olives, cranberries, fruit, and vegetables. (Definition is adopted from the USDA definition of "Unique Farmland.")

Thermal Runaway: An exothermic chain reaction within a battery cell in which self-heating causes a cell to reach a condition of uncontrolled, self-sustaining temperature increase, which can propagate to adjacent cells and lead to fire, explosion, or release of toxic gases.

Thermal Propagation: The spread of thermal runaway from one cell to adjacent cells, modules, or enclosures within the same ESS.

UL9540: Underwriters Laboratories Standard for Energy Storage Systems and Equipment.

UL9540A: Underwriters Laboratories Standard for Safety for Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.

Wind Energy System (WES): A system that captures and converts wind into electricity for the purpose of sale or for use in locations other than solely the wind energy system property. Wind energy system includes, but is not limited to, the following equipment and facilities to be constructed by an electric provider or independent power producer: wind towers; wind turbines; access roads; distribution, collection, and feeder lines; wires and cables; conduit; footings; foundations; towers; poles; crossarms; guy lines and anchors; substations; interconnection or switching facilities; circuit breakers and transformers; energy storage systems; overhead and underground control; communications and radio relay systems and telecommunications equipment; monitoring and recording equipment and facilities; erosion control facilities; utility lines and installations; generation tie lines; ancillary buildings; wind monitoring stations; and accessory equipment and structures.

Wind Energy Systems are classified as follows:

1. *Wind Energy System, Private Accessory:* A Wind Energy Storage System that is an accessory use that is intended to primarily serve the needs of the consumer on-site.
2. *Wind Energy System, Principal Use:* A Wind Energy System for the primary purpose of off-site use through the electrical grid or export to the wholesale market.

B. General Provisions. Principal Use Energy System.

The application for approval of a principal use energy system shall be made according to the procedure for Special Uses set forth in Section 65.40 and the application guidelines set forth in this section. Any application for a Principal Use Energy System shall contain all of the following. Each item listed below shall be provided as an Exhibit and numbered to correspond with the subsection it addresses. An incomplete application will not be accepted.

1. The complete name, mailing address, email address, and telephone number of the applicant and property owner(s).
2. The planned date for the start of construction and the expected duration of construction.
3. The submission shall include content responsive to all of the following, to the extent not otherwise provided pursuant to the below referenced sections:
 - a. A description of the energy system, including a site plan as described in Section 64 of this Ordinance and this Section. All information and supporting materials relied upon by the applicant to demonstrate compliance with the site plan approval standards as specified in this Ordinance shall be provided.
 1. Site Selection. This land use shall not unreasonably diminish farmland, including, but not limited to, prime farmland and, to the extent that evidence of such farmland is available in the evidentiary record, farmland dedicated to the cultivation of specialty crops.
 2. A map of all properties upon which any component of a facility or ancillary feature would be located showing current land use, tax identification number and owner of record of each property. Identify any parcels within the facility boundaries participating in farmland development rights agreements Michigan's Farmland and Open Space Preservation Program (PA 116). Additionally, for wind energy systems, all properties within two thousand (2,000) feet of such properties, and for solar energy or energy storage systems, all properties within one thousand (1,000) feet. This should indicate the location of all existing structures and shall identify such structures as occupied or vacant and their use if occupied. This should also include the identification of land being used for agriculture including the cultivation of specialty crops according to publicly available data.
 3. Lot lines and required setbacks shown and dimensioned.
 4. Size and location of existing and proposed water utilities, including any proposed connections to public or private sewer or water supply systems.
 5. A map of any existing overhead and underground major facilities for electric, gas, and telecommunications transmission within the facility and surrounding area.
 6. The location and size of any existing or proposed substations or energy storage facilities accessory to the principal use.
 7. Staging areas and lay-down yards.

8. The location and size of all surface water drainage facilities, including source, volume expected, route, and course to final destination'.
 9. Designated groundwater management zones, designated agricultural districts and flood-prone areas.
 10. For solar energy and energy storage systems, depth of groundwater at the facility and within 1,000 feet of the perimeter fence.
 11. Recreational and other land uses that might be affected by the sight or sound of the construction or operation of the facility, interconnections and related facilities. Identify any wildlife or scenic corridors, open spaces, known archaeological, geologic, historical, or scenic areas, parks, designated wilderness, forest lands, specialty farms, scenic vistas, conservation easements, wetlands, federal or state designated scenic byways, nature preserves, wildlife sanctuaries, designated trails, major communication and utility uses and infrastructure, and institutional, community, and municipal uses and facilities within one mile of the property line.
 12. A map depicting the proposed facilities, adjacent properties, all structures within participating and adjacent properties, property lines, municipal boundaries, and the projected sound isolines along with the modeled sound isolines including the ordinance limit. See also Exhibit A for specific Sound Report Requirements.
 13. For wind energy systems, a map or schematic showing the area including sensitive receptors that will be impacted by shadow flicker for wind facilities, including isolines indicating areas expected to experience 30 hours or more per year of shadow flicker.
- b. A description of the expected use of the energy system.
 - c. A description of the expected public benefits of the proposed energy system.
 - d. A Phase I and, if warranted by the findings of Phase I, a Phase II Environmental Site Assessment including records of consultation with relevant state, tribal, and federal agencies.
 - e. A qualitative assessment of the compatibility of the facility, including off-site staging and storage areas, with the Go! Green Oshtemo and 2045 Oshtemo Comprehensive Plan including the expected direct and indirect impacts of the proposed energy system on the conservation of the environment, agricultural lands, historic resources, recreational resources, and natural resources including wildlife and/or scenic corridors and how the applicant intends to address and mitigate these impacts. The assessment shall identify the nearby land uses and shall address the land use impacts of the facility on residential areas, schools, specialty crop farms, civic facilities, recreational areas and commercial areas. The scope of such assessment shall be established by the Township's subject matter expert. The assessment and evaluation shall demonstrate to the Planning Commission's satisfaction that conflicts from facility-generated noise, dust, traffic, and visual impacts with current and planned uses have been minimized to the extent practicable.
 - f. A qualitative assessment on the effects of the proposed energy system on the social well-being, equity, health and safety of residents within one mile of the site prepared by a third-party licensed professional with experience with the social impacts of the proposed facility

type. The scope of such assessment shall be established by the Township's subject matter expert.

- g. A description of the portion of the community where the energy system will be located.
- h. A statement and reasonable evidence that the proposed energy system will not commence commercial operation until it complies with applicable state and federal environmental laws, including, but not limited to, the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.
- i. Evidence of consultation of the proposed system as presented to the Township, before submission of the application, with the following county, state and federal agencies before submitting the application, including:
 - 1. Federal agencies – where applicable.
 - 2. Michigan Department of Natural Resources.
 - 3. State Historic Preservation Office.
 - 4. Michigan Department of Environment, Great Lakes, and Energy.
 - 5. Michigan Department of Agriculture and Rural Development.
 - 6. Kalamazoo County Drain Commission.
 - 7. Kalamazoo County Health & Community Services, Environmental Health Division.
 - 8. Road Commission of Kalamazoo County.
 - 9. Michigan Department of Transportation – Aeronautics Commission and Kalamazoo Transportation Service Center.
 - 10. Owners of major facilities for electric, gas, and telecommunications lines.
- j. The Soil and Economic Survey Report under Section 60303 of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.60303, for Kalamazoo County, and when the property is within 1,000 feet of Van Kal Street, Van Buren County.
- k. MISO Interconnection queue and power transmission information. Execution of a generator interconnection agreement must be anticipated within 12 months of application for special use approval due to time limits imposed in Section 65.60. The following power transmission and interconnection information is required:
 - 1. Queue number or other information providing the ability to identify the proposed facility within the interconnection queue.
 - 2. Copies of all studies completed by the regional transmission organization including feasibility studies and system impact studies.
 - 2.1. If a generator interconnection agreement has been executed, the executed generator interconnection agreement may be submitted in lieu of the studies.

- 2.2. The generator interconnection agreement and/or studies may be filed subject to a protective order and non-disclosure agreement.
- l. If the energy system is reasonably expected to have an impact on television signals, microwave signals, agricultural global position systems, military defense radar, radio reception, or weather and doppler radio, a plan to minimize and mitigate that impact. Information in the plan concerning military defense radar is exempt from disclosure under the Freedom of Information Act, 1976 PA 442, MCL 15.231 to 15.246, and shall not be disclosed by the Township or the electric provider or independent power producer except pursuant to court order. Wind energy systems should provide evidence of prior consultation with nearby communication tower operators, including those of the United States Department of Defense.
 - m. A stormwater management plan pursuant to Article 161.
 - n. For solar energy and energy storage systems, a Groundwater Contamination Risk Assessment and Spill Contingency Plan satisfying Article 162, Groundwater and Wellhead Protection.
 - o. Fire Response Plan. In addition to the more specific provisions of Section D.3.R for an energy storage system, for all energy systems, a Fire Response Plan (FRP) shall include the following:
 1. Evidence of consultation with the Oshtemo Township Fire Chief to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc.
 2. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.
 3. A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.
 4. For wind and solar projects, a commitment to conduct, or provide funding to conduct, site-specific training drills with emergency responders before commencing operation, and upon request while the facility is in operation. Training should familiarize local fire departments with the project, hazards, procedures, and current best practices.
 5. For energy storage projects, a commitment to review and update the FRP at least annually with the Oshtemo Township Fire Department, first responders, and Kalamazoo County Emergency Manager (including Van Buren County for projects located within one mile of the border between Kalamazoo County and Van Buren County).
 6. A commitment to offer to conduct, or provide funding to conduct, full-scale site-specific training drills with emergency responders before commencing operation, and at least once per year while the facility is in operation. Training should familiarize Oshtemo Township Fire Department and other local fire departments and emergency responders with the project, hazards, procedures, and current best practices.
 7. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.
 8. A 24-hour emergency contact telephone number for use by emergency services providers.
 9. The FRP must meet all requirements of the Clean and Renewable Energy and Energy Waste Reduction Act, as amended, MCL 460.1001 et. seq
 10. Other information the applicants find relevant.

Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the FRP. Additional consultation with the Oshtemo Township Fire Department, first responders, and Kalamazoo County emergency managers is required for amended plans.

- p. Emergency Response Plan. In addition to the more specific provisions of Section D.3.Q for an ESS, an Emergency Response Plan (ERP) shall include the following:

1. Evidence of consultation with the Oshtemo Township Fire Chief and Kalamazoo County Emergency Manager to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, site accessibility, etc.
2. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate Fire Response Plan (FRP)).
3. Emergency response measures by contingency.
4. Evacuation control measures by contingency.
5. Community notification procedures by contingency including mass emergency notification systems pursuant to NFPA 72.
6. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.
7. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every 3 years.
8. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.
9. The means by which firefighters and other emergency services personnel can access and shut down the system on an emergency basis. This information shall be provided to the Township or other appropriate agency managing emergency response.
10. A 24-hour emergency contact telephone number for use by emergency services providers.
11. Other information the applicant finds relevant.

Changes to the design, type, manufacturer, etc. of facilities or equipment after the initial filing must be analyzed to determine if changes are necessary to the ERP. Additional consultation with the Oshtemo Township Fire Department, first responders, and Kalamazoo County Emergency Manager is required for amended plans.

- q. A decommissioning plan that includes the following:

1. An overview of the proposed energy facility including:
 - 1.1. A detailed description of the proposed energy facility above ground and overview of the current land use of the site where the proposed energy facility will be located.
 - 1.2. The expected useful life of the proposed energy facility.
 - 1.3. A description of events which would trigger owner-initiated decommissioning.
 - 1.4. A physical and chemical analysis of the soil at the time of development which will be used to ensure soil is returned to a useful condition. Prior to conducting the analysis, the scope of the assessment, including the sampling methodology, number and location of samples, and analytical parameters,

- shall be established by the developer and approved by the Township Engineer or his/her designated subject matter expert.
- 1.5. A list of known hazardous substances at the time of development.
 2. A description of the energy facility removal process including:
 - 2.1. A proposed decommissioning schedule.
 - 2.2. A description of facilities that will be removed and those that will be kept in place including the reasoning and agreement with the property owner.
 - 2.3. A description of removal methods and site clearance activities.
 - 2.4. A description of anticipated hazardous substances used in the facility and removal from the site based upon what is known at the time the application is filed.
 - 2.5. A description of planned materials management methods and transportation plans and an initial plan as to whether components will be sold, landfilled, recycled, or other, with the understanding that such plans will be updated periodically.
 - 2.6. A description of resources, conditions, or activities potentially affected by decommissioning and mitigation measures to be employed during the decommissioning process.
 3. A description of the site restoration plan that returns the site to a useful condition similar to its pre-construction state. Process milestones and PA 116 restoration requirements should be detailed, including necessary steps to ensure soil is returned to at least as good or better condition with respect to organic matter, infiltration, compaction, drainage and crop productivity.
 4. A list of expected necessary permits for demolition or new temporary construction which may be required for component removal and a statement that such permits will be obtained prior to the start date of decommissioning.
 5. Details describing the financial assurance:
 - 5.1. The type and manner of financial assurance the developer plans to provide (cash is prohibited), subject to the terms of any future Township approval and Township-approved decommissioning agreement:
 - 5.1.1. Bond.
 - 5.1.2. Irrevocable letter of credit, excluding cash.
 - 5.2. Such financial assurance shall be expressly held for the benefit of the Township.
 - 5.3. The Township must be notified in writing at least 60 days before the financial assurance is set to expire. Failure to provide proper notification and updated financial assurance information is a violation of this ordinance.
 6. The following commitments and assurances shall be included in the decommissioning plan:
 - 6.1. A commitment to provide decommissioning plan and financial assurance cost updates every 3 years.
 - 6.2. An assurance statement that restoration will be in accordance with agreements with landowners.

- 6.3. A commitment and plan to coordinate with landowners and the Township prior to beginning decommissioning activities.
 - 6.4. An assurance that decommissioning plan updates and cost estimates shall be filed with the Township Clerk.
 - 6.5. An assurance that the financial assurance shall be updated according to the required periodic decommission plan and cost estimate updates and maintained throughout the operational life of the facility.
 - 6.6. Assurance that the owner will provide annual proof to the Township Clerk that the financial assurance remains sufficient and in effect.
 - 6.7. A statement agreeing to provide a decommissioning completion report to the Township within 60 days after decommissioning is complete.
7. The decommissioning plan shall include a Decommissioning Agreement that shall be executed and recorded at the Kalamazoo County Register of Deeds. The Decommissioning Agreement shall be executed and recorded upon issuance of a building permit or if a building permit is not required, within seven (7) days prior to commencement of construction. A draft of the proposed Decommissioning Agreement shall be provided to the Township Clerk within 30 days of special use approval for Township Attorney review and approval. The Decommissioning Agreement shall follow a template available from the Township Clerk.
 8. The decommissioning cost estimate shall include a detailed cost estimate for restoration of participating properties to useful condition similar to that which existed before construction, repair of drainage systems and damaged roads. It shall also include removal of above-surface facilities, foundations to a depth of four feet and infrastructure that have no ongoing purpose. The estimate must include the following:
 - 8.1. Detailed cost estimates for removal of energy facility equipment and infrastructure, land restoration and reclamation, groundwater and soil remediation, hazardous waste disposal, and liability insurance requirements calculated by a third party with expertise in decommissioning to restore to useful condition similar to before the energy facility.
 - 8.2. An estimate of salvage value for energy facility equipment and infrastructure calculated by a third party licensed professional engineer with expertise in decommissioning.
 - 8.3. An estimate of the cost to hire a decommissioning consultant to manage the decommissioning process in the event of owner abandonment or bankruptcy.
- r. A preconstruction sound report, satisfying Appendix A, detailing the sound modeling results along with mitigation plans to ensure that sound emitted from the facilities will remain below ordinance limits throughout the operational life of the facility. Post-construction sound monitoring protocol is required as part of the preconstruction sound report and shall satisfy Appendix A.
 - s. For solar energy systems and energy storage systems, a visual impact assessment prepared by a third party qualified professional of the visual impacts of the proposed project including a description of the project, the existing visual landscape, and important scenic resources, plus visual simulations that show what the project will look like including

proposed screening and landscaping, a description of potential project impacts and mitigation measures that would help reduce the visual impacts created by the project.

- t. For solar energy systems and energy storage systems, a photometric plan to demonstrate compliance with dark sky-friendly lighting solutions.
- u. For wind energy systems, light-mitigation plans, including exemptions requested for during the construction period.
- v. For wind energy systems, a report detailing the flicker modeling results with mitigation plans to ensure that flicker will remain below the limit listed in Section D.2.E throughout the operational life of the facility. The report must be prepared by a qualified third party using the most current modeling software available and be based on real world or adjusted case assessment modeling. The report must show the locations and estimated amount of shadow flicker to be experienced at all occupied community buildings and non-participating residences as a result of the individual turbines in the system.
- w. A Community Host Agreement in the amount of \$5,000 per megawatt of nameplate capacity which shall be executed prior to commercial operation of the system.
- x. A Property Tax Guarantee for consideration by the Township Board upon special use approval, if granted, by the Planning Commission.
- y. Installation and Operational Safety. The system shall comply with all of the following requirements:
 - 1. The energy system shall be designed and constructed for interconnection to a Michigan Public Service Commission or Midcontinent Independent System Operator regulated utility electrical power grid and shall be operated with such interconnection.
 - 2. The energy system and all foundation elements shall comply with all applicable building and electrical code requirements, and any applicable federal/state regulations. The manufacturer's engineer or another qualified engineer shall provide written certification that the design, installation (including foundations), and interconnection is compliant with the manufacturer and industry standards, all applicable local construction and electrical codes, and any applicable federal/state regulations.
 - 3. Other than transmission or distribution lines for interconnection to the electric power grid, all electrical wiring shall be buried underground; except where the manufacturer's engineer or a qualified engineer employed by the utility that owns/operates the electrical power grid to which the energy system shall be interconnected certifies an underground wiring installation is not permitted by an applicable code and/or applicable federal/state regulation, with attached complete documentation supporting any such certification.
- z. A plan for third party monitoring of the energy system with at least once weekly site visits while the system is being constructed and shall continue until all approvals have been issued by the appropriate regulating authorities. The independent third party monitor shall resolve complaints and request immediate cessation of activities that the

monitor can document are in material breach of any plan, permit or agreement pertaining to the construction of the facility. The independent third party monitor shall provide periodic reports to the Planning Commission and the applicant from the start of construction and continuing through the first 3 months of commercial operation. The cadence of the reports will be determined by the independent monitor in consultation with the Planning Commission.

- aa. Through the special use process, the Planning Commission shall require reasonable measures to minimize visual impacts by preserving existing natural vegetation, requiring new vegetative screening or other appropriate measures. The Planning Commission shall determine such required visual screening measures on a site-specific basis pursuant to the landscaping standards of Section 53 and/or the standards for site plan approval as specified in Section 64 of this Ordinance, as most applicable to the circumstances. In making this determination the Planning Commission is specifically authorized to consider whether additional visual screening measures are appropriate where a system is proposed to be located on property adjoining a residential property.
- bb. If the system includes an access drive(s) for maintenance purposes, the surface of the access drive(s) shall be permeable but still support the live load of a fire apparatus, unless on brownfield land or on an already paved surface at the time of application for approval such as a parking lot or former building foundation.
- cc. Except as otherwise depicted on and approved with the site plan, the area within which the system is located shall not be paved with asphalt/concrete or any other surface material that is impermeable to water other than for slab foundations for structures and equipment. This shall not apply to a system located on brownfield land or on an existing paved area such as a former building slab or in an unused parking area where adequate parking remains for any other use on the site.
- dd. No outdoor storage of parts, inoperable equipment, junk or blight is permitted at the facility. The grounds shall be kept in a manner compatible with the character of the area within which the facility is located.
- ee. Non-motorized facilities shall be provided pursuant to the adopted Non-Motorized Facilities Map.
- ff. Construction Information: Describe the project's proposed construction and installation methods including:
 - 1. Soil surveying and testing plans, pursuant to Natural Resources and Environmental Protection Act (NREPA).
 - 2. Grading and excavation.
 - 3. Construction of temporary and permanent access roads, staging areas, laydown areas and trenches.
 - 4. Stringing of cable and/or laying of pipe.
 - 5. Installation of electric transmission line poles and structures, including foundations.
 - 6. Depth of underground infrastructure; must be at least four feet unless a lesser depth is approved by the Planning Commission.
 - 7. Post-construction restoration.
 - 8. Maps showing the following:
 - 8.1. The planned routes (may be preliminary) for cranes and other heavy equipment.

- 8.2. The location of any existing deeded easement granted to any entity within the footprint of the facility.
 - 8.3. The location of known existing and proposed county and intercounty drains, drain easements, and underground drainage tiles including data provided by the Kalamazoo County Drain Commissioner or the property owner as applicable and to the extent available.
- jj. Unanticipated Discoveries Plan. An Unanticipated Discoveries Plan (UDP) that addresses the anticipated impacts and plans to mitigate impacts to the environment and natural resources, including, but not limited to, sensitive habitats and waterways, wetlands and floodplains, wildlife corridors, parks, historic and cultural sites, and threatened or endangered species. If a sensitive habitat is identified, the Planning Commission shall require an impact evaluation. The UDP must include the following:
1. A set of procedures to be followed if cultural resources are discovered. Examples of cultural materials include, but are not limited to, the following:
 - 1.1. An accumulation of shell, burned rocks, or other food-related materials.
 - 1.2. Bones or small pieces of bone.
 - 1.3. An area of charcoal or very dark stained soil with artifacts.
 - 1.4. Stone tools or waste flakes (i.e., an arrowhead, or stone chips).
 - 1.5. Clusters of tin cans or bottles.
 - 1.6. Logging or agricultural equipment that appears to be older than 50 years
 - 1.7. Buried railroad tracks, decking, or other industrial materials.
 2. A set of procedures to be followed if human remains are discovered.
 3. A contact list that includes the following:
 - 3.1. Contact for the State Historic Preservation Office
 - 3.2. Contacts for Tribal Historic Preservation Offices of Michigan
 - 3.3. Local, project-specific, emergency contacts (i.e., Kalamazoo County Sheriff, Kalamazoo County Medical Examiner.)

C. Post Approval Requirements and Information

1. Completion Report. Before commencing commercial operations, the applicant shall file a Completion Report with the Township Clerk certifying compliance with PA 233, this Section, Appendices, as well as any conditions imposed by the Planning Commission in granting approval. At a minimum, the Completion Report should include the following:
 - a. Finalized site plans, finalized schematics, and dimensioned drawings.
 - b. Descriptions demonstrating compliance with Section 49.290.B and 49.290.D for the relevant technologies included within the facility.
 - c. A list and copy of all permits received including the permitting agency, the date the permit was received, and conditions attached to each permit.
 - d. Mechanical Completion Certificates.

- e. Submit a Postconstruction Sound Monitoring Report, satisfying Appendix A as part of the required Completion Report. A sound monitoring report shall be submitted within 60 calendar days of end of the field data collection.
- f. Conformity to approved plan. Sealed as-built survey and record construction drawings are required pursuant to Section 64.90.
- g. Contents of Annual Report filed with the Township Clerk no later than March 31 each year shall include the following:
 - 1. The facility name address and parcel number.
 - 2. The special use approval date.
 - 3. The reporting period covered by the report.
 - 4. The name, contact information, and role of the owner and operator submitting the report.
 - 5. The amount of electricity produced per turbine or per parcel.
 - 6. Complaints received during the time period as well as the developer/operators' response including resolution and/or plans for mitigation.
 - 7. Outline of the operating conditions and performance of the facilities on the site including non-producing ancillary equipment, structures, fencing, locks, gates, screening, and vegetative ground cover.
 - 8. List of any failures of equipment or structures that took place during the period as well as repairs that have been made during the time period or are planned or underway.
 - 9. All material improvements made to the site or facilities during the period as well as any planned improvements or planned changes to the site or facilities including changes to fencing or ancillary equipment during the reporting period.

The Township retains the right to perform on-site inspections annually to coincide with receipt of the Annual Report.

- h. Ownership and operator changes. For solar energy systems and energy storage systems, if the owner of the system changes or the owner of the property changes, the special land use approval shall remain in effect, provided that the successor owner or operator of the system assumes in writing all of the obligations of the special land use approval, site plan approval and decommissioning plan. A new owner or operator of the system shall notify the Township Clerk in writing of such change in ownership or operator within 30 days of the change.
- i. Approval timeframe and abandonment. The special land use and site plan approval shall be valid for a period of 24 months provided that a building permit is issued for construction and construction is commenced. In the event that construction is not completed in accordance with the final site plan, as may have been amended and approved by the Planning Commission, within 24 months after approval, the Planning Commission may extend time to complete construction for 12 months. If the owner and/or operator fails to perform substantial construction after 36 months, the approvals shall expire.

The system shall be considered abandoned when it ceases to operate consistently for more than one year. If the owner and/or operator fails to comply with decommissioning upon any abandonment, the Township may, at its discretion, enter the property and utilize the financial assurance for the removal of the system and restoration of the site in accordance with the decommissioning plan.

2. Complaint Resolution process as approved by the Planning Commission as a condition of approval must be established that includes the name(s) of a designated developer/operator representative provided with the authority to resolve complaints, a requirement that complaints are acknowledged within 2 business days, investigated within 5 business days and corrected within 30 days, a dedicated phone number and email address for complaints, and website information instructing the public on the complaint resolution process. Both construction and post-construction complaint resolution shall be addressed.
3. Battery Module or Array Replacement. For solar energy systems and energy storage systems, any battery module or array replacement shall be properly managed pursuant to the removal process identified in the Decommissioning Plan. Replaced components shall not be stored at the facility.

D. Specific Provisions: Principal Use Energy Systems.

The following requirements shall apply to all Principal Use Solar Energy Systems, Principal Use Energy Storage Systems and Principal Use Wind Energy Systems:

1. **Solar Energy System, Principal use:** A principal use solar energy system (SES), where permitted, is subject to special land use approval by the Planning Commission and/or other applicable authority, and shall meet the following requirements:
 - A. Height: Total height for a principal use SES shall not exceed a maximum of 16 feet above the natural grade of the ground beneath when the arrays are at maximum tilt.
 - B. Setbacks: Setback distance shall be measured from the stated location below to the nearest edge of the perimeter fencing of the principal use SES as follows:
 1. 500 feet from the nearest point on the outer wall of any occupied community buildings and residences on non-participating properties.
 2. 100 feet from the nearest edge of a public road right-of way.
 3. 100 feet from the nearest shared property line of non-participating parties.
 - C. A Groundcover and Vegetation Establishment and Management Plan shall be provided as part of the site plan. It shall provide for establishing and maintaining a vegetative ground cover over all areas of the property not used for access drives and foundations for the life of the facility, all required vegetation shall be annually inspected and properly maintained and replaced if dying and/or diseased and invasive species removed.

It shall meet or exceed pollinator standards throughout the lifetime of the facility, as established by the "Michigan Pollinator Habitat Planning Scorecard for Solar Sites" developed by the Michigan State University Department of Entomology or any applicable successor standards approved by the Planning Commission as reasonable and consistent with the purposes of this section. Seed mix used to establish pollinator plantings shall not include invasive species as identified by the Midwest Invasive Species Information Network, led by researchers at the Michigan State University Department of Entomology.

This section does not apply to an application for a facility that is proposed to be located entirely on brownfield land.

- D. Agricultural Protection: For sites where agriculture is the established land use, a principal use SES should be sited to minimize impacts to agricultural production through site design and accommodations including:
1. The ground mounting of panels by screw, piling, or a similar system that does not require a footing, concrete, or other permanent mounting in order to minimize soil compaction; and/or
 2. Siting panels to avoid disturbance and compaction of farmland by siting panels along field edges and in nonproduction areas to the maximum extent practicable and financially feasible; and/or
 3. Maintaining all drainage infrastructure on site, including drain tile and ditches, during the operation of the SES; and/or
 4. Siting the SES to avoid isolating areas of the farm operation such that they are no longer viable or efficient for agricultural production, including, but not limited to, restricting the movement of agricultural vehicles/equipment for planting, cultivation, and harvesting of crops, and creating negative impacts on support infrastructure such as irrigation systems or drains.
- E. Fencing: A principal use SES shall be secured with perimeter fencing to restrict unauthorized access. Perimeter fencing shall comply with the latest version of the National Electric Code as of November 2023 or any applicable successor standard as reasonable and consistent with the purposes of Subsection 226(8) of the Clean and Renewable Energy Waste Reduction Act, 2008 PA 295, MCL 460.1226.
- F. Lighting: A principal use SES shall comply with Section 54.
- G. Sound: The sound pressure level of a principal use SES and all ancillary solar equipment shall not exceed 30 dBA (Leq (1-hour)) at the nearest point on the shared property line of an adjacent non-participating residential property. Decibel modeling shall use the A-weighted sound level meter as designed by the American National Standards Institute.
- H. The collector panels and all other components of the system not within a fully enclosed building shall comply with all of the following at all times:
1. Designed and maintained with an anti-reflective surface material or coating;
 2. Designed and operated so as to not direct glare onto any adjoining property or any public road or other public way. This requirement applies whether collector panels are stationary or in a tracking array.
 3. An analysis from a third party qualified professional to determine if glare from the solar panels will be visible from Newman's Airport, residences and roadways shall be provided. The analysis shall consider the changing position of the sun throughout the day and year.

- I. A principal use SES shall not display lettering, company insignia, advertising, or graphics of any kind on any part of the system, except such non-obtrusive lettering and/or insignia intended to identify the manufacturer, which shall not be visible from any adjoining property or adjoining public road or other public way. Additional signage may be permitted subject to the requirements of Section 55.
 - J. A principal use SES shall be properly maintained in accordance with the manufacturer's recommendations and so as to be operable as designed as evidenced by a maintenance plan and schedule submitted with the application. If the maintenance procedures include the use of detergents or other non-organic substances to clean the solar collector panels and/or any other apparatus, the intended use of such products shall be disclosed in the application, with appropriate details on the type of product, the frequency and quantity of use, and the soil/water quality protection measures to be utilized as part of the maintenance plan. Any such soil/water quality protection measures shall also be included in a stormwater management plan submitted as part of the application and shown on the site plan.
 - K. Michigan Public Service Commission requirements: Principal use SES shall comply with any more stringent requirements adopted by the MPSC as provided in MCL 460.1226(8)(a)(vi).
2. **Wind Energy System, Principal use:** A principal use wind energy system (WES), where permitted, is subject to special land use approval by the Planning Commission and/or other applicable authority, and shall meet the following requirements:
- A. Setbacks: Setback distance shall be measured from the stated location below to the center of the base of the wind tower as follows:
 - 1. Occupied community buildings and residences on non-participating properties: A horizontal distance equal to 2.1 times the maximum blade tip height from the nearest point on the outside wall of the structure.
 - 2. Residences and other structures on participating properties: A horizontal distance equal to 1.1 times the maximum blade tip height from the nearest point on the outside wall of the structure.
 - 3. Non-participating property lines: A horizontal distance equal to 1.1 times the maximum blade tip height from the property line;
 - 4. Public road right-of-way: A horizontal distance equal to 1.1 times the maximum blade tip height from the center line of the public road right-of-way;
 - 5. Overhead communication and electric transmission, not including utility service lines to individual houses or accessory buildings: A horizontal distance equal to 1.1 times the maximum blade tip height from the center line of the easement containing the overhead line.

- B. Height: Total height, measured at the wind tower blade tip, for a principal use WES shall not exceed the height allowed under a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR Part 77.
- C. Sound: The sound pressure level generated by a principal use WES shall not exceed 30 dBA (Leq (1-hour)) measured at the nearest point on the shared property line of an adjacent non-participating lot. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.
- D. Lighting: The system shall be equipped with functioning light-mitigating technology. To allow proper conspicuity of a wind turbine at night during construction, a turbine shall be lit with temporary lighting until the permanent lighting configuration, including the light-mitigating technology, is implemented. A temporary exemption from the requirements of this section may be granted if installation of appropriate light-mitigating technology is not feasible. A request for a temporary exemption must be in writing and state all of the following:
1. The purpose of the exemption;
 2. The proposed length of the exemption;
 3. A description of the light-mitigating technologies submitted to the Federal Aviation Administration;
 4. The technical or economic reason a light-mitigating technology is not feasible;
- All other lighting shall comply with Section 54.
- E. Shadow Flicker: Shadow flicker shall not exceed 30 hours per year under planned operating conditions as indicated by industry standard computer modeling and measured at the exterior wall of an occupied community building or non-participating residence.
- F. Signal Interference: A principal use WES shall meet any standards concerning radar interference, lighting, or other relevant issues as determined by the Michigan Public Service Commission in any implementation or rule-making process.
- G. A principal use WES shall not display lettering, company insignia, advertising, or graphics of any kind on any part of the system, except such non-obtrusive lettering and/or insignia intended to identify the manufacturer, which shall not be visible from any adjoining property or adjoining public road or other public way. Additional signage may be permitted subject to the requirements of Section 55.
- H. A principal use WES shall be properly maintained in accordance with the manufacturer's recommendations and so as to be operable as designed as evidenced by a maintenance plan and schedule submitted with the application. If the maintenance procedures include the use of detergents or other non-organic substances to clean the solar collector panels and/or any other apparatus, the intended use of such products shall be disclosed in the application, with appropriate details on the type of product, the frequency and quantity of use, and the soil/water quality protection measures to be utilized as part of the maintenance plan. Any such soil/water quality protection measures shall also be included in a stormwater management plan submitted as part of the application and shown on the site plan.

- I. Michigan Public Service Commission requirements: A principal use WES shall comply with any more stringent requirements adopted by the MPSC as provided in MCL 460.1226(8)(b)(vii).

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3. **Energy Storage System, Principal use:** A principal use energy storage system (ESS), where permitted, is subject to special land use approval by the Planning Commission, and/or other applicable authority, and shall meet the following requirements:

- A. Full compliance with the latest released editions as of the time a Building Permit is requested, of the following standards. In case of conflict, the more stringent requirement shall apply:

Standard	Title	Applicability
NFPA 855	Standard for the Installation of Stationary Energy Storage Systems	<i>Primary installation code; governs siting, separation, suppression, and BMS requirements</i>
UL 9540	Standard for Energy Storage Systems and Equipment	<i>System-level listing and certification</i>
UL 9540A	Test Method for Evaluating Thermal Runaway Fire Propagation	<i>Thermal runaway propagation testing; required for NFPA 855 compliance above threshold quantities</i>
IEC 62619	Safety Requirements for Secondary Lithium Cells and Batteries for Use in Industrial Applications	<i>Cell and battery safety; design, test, and marking requirements</i>
IEC 62933-5-2	Electrical Energy Storage (EES) Systems — Safety Requirements	<i>Grid-scale ESS safety</i>
IEEE 1547	Standard for Interconnection and Interoperability of Distributed Energy Resources	<i>Grid interconnection; applicable to utility-scale and grid-tied systems</i>
NERC CIP	Critical Infrastructure Protection Standards	<i>Cybersecurity; applicable to systems connected to the bulk electric system</i>
ASCE 7	Minimum Design Loads and Associated Criteria for Buildings and Other Structures	<i>Seismic and wind loading for enclosures and anchorage</i>
IBC	International Building Code	<i>Enclosure structural compliance</i>
NFPA 70 (NEC)	National Electrical Code	<i>Electrical installation; Articles 480, 706</i>
FM Global DS 5-33	Data Sheet for Large-Scale Battery Energy Storage Systems	<i>Insurance carrier requirements; loss prevention</i>
Other applicable codes		

- B. Battery Management System (BMS) or Energy Storage Management System (ESMS) and Monitoring Requirements.

1. General BMS or ESMS Requirements. The ESS shall incorporate a Battery Management System (BMS) or Energy Storage Management System (ESMS) that continuously monitors, controls, and reports the status of the energy storage assembly.

The BMS shall also run multiple diagnostic algorithms to assess proper operation and communicate any error conditions or abnormalities.

2. Cell-Level Monitoring. The BMS shall provide real-time monitoring at the individual cell level. At minimum, the following parameters shall be measured for each cell or cell group (consisting of parallel cells only):
 - a. Cell voltage, monitored continuously with a resolution of no greater than ± 10 mV (millivolt) and sampled at a minimum frequency of 1 Hz (hertz).
 - b. State of charge.
 - c. Representative cell temperatures, with a resolution of no greater than $\pm 0.5^{\circ}\text{C}$ and sampled at a minimum frequency of 1 Hz (hertz). These temperatures shall be documented as to which locations are chosen and how many used as to capture all perimeters of the cell modules as well as the centermost cell (i.e. top-most, bottom-most, left-side, right-side, and center cell at the minimum)
3. Module and System-Level Monitoring. In addition to cell-level monitoring, the BMS shall monitor the following parameters at the module, rack, and system levels:
 - a. Module and rack voltage, current, and temperature.
 - b. State of Charge and State of Health at the module and system level.
 - c. Insulation resistance / ground fault detection, with automatic isolation upon detection of a ground fault exceeding the Manufacturer's specified threshold.
 - d. Contactor/relay status for all primary disconnect devices.
 - e. Cooling system status, including inlet/outlet temperature differential (liquid-cooled systems), or airflow confirmation (forced-air systems).
4. 24/7 Network Operations Center (NOC). BMS or ESMS data from all ESS installations shall be monitored continuously, twenty-four hours per day, seven days per week, by a Network Operations Center (NOC) staffed by trained personnel with working knowledge of the ESS systems under their oversight. The NOC shall:
 - a. Immediately relay alarm notifications indicative of thermal runaway or other critical battery failure events to the system owner, operator, and designated emergency contacts;
 - b. Assist in determining, in coordination with the central station, which alarms constitute critical incidents warranting fire department notification; and
 - c. Be available, upon request from on-scene incident command, to relay relevant BMS data to local emergency responders to guide emergency response.
5. Video Surveillance. ESS installations subject to this Section shall be equipped with a video surveillance system providing continuous coverage of the ESS facility. Video surveillance shall be used as both a continuous monitoring tool and a post-event analysis resource. Requirements include:
 - a. Real-time monitoring of video feeds by the NOC, or made available to first responders during an incident, where required by the Oshtemo Fire Department;
 - b. Retention of recorded video for not less than seventy-two (72) hours under normal conditions; in the event of a fire or incident requiring fire department response, video records shall be preserved and made available to the Oshtemo Fire Department for post-incident investigation; and

- c. Video surveillance system access credentials and procedures shall be documented in the FRP.
6. Alarm and Protective Action Thresholds. The BMS shall implement a tiered alarm and protective action architecture with at minimum the following levels:
- a. Level 1 — Warning: a condition that deviates from normal operating parameters and requires operator notification but does not require immediate automatic protective action. Warning conditions shall be logged and shall generate a remote alarm notification within 60 seconds of detection.
 - b. Level 2 — Alarm: a condition that presents a risk of equipment damage or safety hazard and shall trigger automatic protective action, including but not limited to power derating or cessation of charge/discharge operations.
 - c. Level 3 — Emergency / Fault: a condition indicating imminent or active thermal runaway, ground fault, or fire. This level shall trigger immediate initiation of automatic disconnect of the ESS from all connected loads and sources, initiation of fire suppression (where automatically triggered), and immediate alarm notification to the building fire alarm system and remote monitoring platform. Alarm notification shall satisfy NFPA 72 and include audio and visual alarms.

The Manufacturer's complete Alarm and Protective Action Matrix as part of the system documentation submittal, identifying each alarm condition, its associated monitoring parameter, threshold value, tier classification, and resultant protective action shall be submitted by the applicant/owner.

7. Remote Monitoring and Data Logging. The ESS shall be equipped with a remote monitoring interface that satisfies the following requirements:
- a. All cell-level, module-level, and system-level parameters identified in Sections 2.2 and 2.3 shall be accessible via a remote monitoring platform using open-protocol communications (Modbus TCP/IP, DNP3, IEC 61850, or approved equivalent).
 - b. All monitoring data shall be logged locally with a minimum retention period of 90 days at 1-minute intervals and shall be exportable in a non-proprietary format (CSV or equivalent).
 - c. All alarm and protective action events (Levels 1, 2, and 3) shall be time-stamped, logged, and transmitted to the remote monitoring platform within 60 seconds of the triggering event.
 - d. The remote monitoring platform shall provide automated notification (email, SMS, or equivalent) to designated personnel upon any Level 2 or Level 3 alarm condition.
 - e. Remote monitoring shall be available on a continuous 24/7 basis.

C. Cybersecurity

Cybersecurity is organized into architectural layers and protocols designed to protect against unauthorized access, malicious control, and data theft. Proof of satisfying the below cybersecurity requirements shall be provided within 10 business days to the Township Clerk upon request.

1. General Cybersecurity Requirements. The ESS control and monitoring systems shall be designed and configured to protect against unauthorized access, manipulation, and cyberattack. Cybersecurity requirements shall apply to all digital interfaces, including BMS communications, remote monitoring platforms, SCADA/EMS connections, and firmware update mechanisms.
2. Network Segmentation and Defense.
 - d. Isolation. Firewalls shall be used to create distinct zones separating the ESS control network from enterprise or public-facing networks.
 - e. Deep Packet Inspection (DPI). Industrial-grade firewalls capable of inspecting traffic for specific industrial protocols (ex. Modbus, DNP3) to filter out unauthorized or malformed commands shall be deployed.
 - f. Data Diodes. Use of data diodes to ensure information can flow out for monitoring but no control signals can flow in from unsecured networks may be required by the Planning Commission as recommended by the Township's consultant.
3. Access Controls. The following access control requirements shall apply to all ESS digital systems.
 - a. All factory-default usernames, passwords, and cryptographic keys shall be changed prior to commissioning. Factory defaults shall not be used in any installed configuration.
 - b. Role-based access control (RBAC) shall be implemented, distinguishing at minimum between read-only monitoring access, operator-level control access, and administrator-level configuration access.
 - c. Multi-factor authentication (MFA) shall be required for all remote access sessions and for all administrator-level access.
 - d. All access attempts (successful and failed) shall be logged with user identity and timestamp. Logs shall be retained for a minimum of 12 months.
 - e. Unused communication ports, services, and protocols shall be disabled. The Manufacturer shall provide a network architecture diagram identifying all enabled communication interfaces, protocols, and ports.
4. Firmware and Software Security. The Manufacturer shall provide a documented process for firmware and software updates that includes:
 - a. A documented vulnerability disclosure and patch management policy, including target patch timelines for critical, high, and medium severity vulnerabilities.
 - b. Notification to the Owner of any security vulnerability affecting the installed ESS within 30 days of discovery, with an associated timeline for remediation.

D. Enclosure Structures.

1. General Enclosure Requirements. ESS enclosures shall be designed, manufactured, and installed to provide structural integrity, environmental protection, thermal management, fire compartmentalization, and safe personnel access. Enclosures shall be listed or labeled in accordance with UL 9540.
2. Structural Design. Enclosure structures shall comply with the following structural requirements:

- a. Enclosures shall be designed for the wind and snow loads applicable to the installation site per ASCE 7 and the International Building Code (IBC).
 - b. All structural steel components shall be coated or galvanized to prevent corrosion in accordance with the environmental classification of the installation site. Minimum coating thickness and type shall be specified by the Manufacturer and documented in the submittal package.
 - c. Enclosure floor loading capacity shall be documented and shall account for the full installed weight of battery modules, racks, power conversion equipment, and thermal management systems, with a minimum safety factor of 1.5.
 - d. The enclosure shall be designed to prevent water intrusion. For outdoor installations, the enclosure shall achieve a minimum Ingress Protection rating of IP 55 per IEC 60529. For indoor installations, the enclosure shall achieve a minimum NEMA 1 rating. Where wash-down environments exist, NEMA 4 or IP 66 shall be required.
 - e. Enclosures and their anchorage systems shall be designed to withstand seismic forces in accordance with ASCE 7 for the applicable Seismic Design Category (SDC) of the installation site. The Manufacturer shall provide a seismic certification report stamped by a licensed structural engineer.
3. Compartmentalization and Thermal Separation. ESS enclosures shall incorporate compartmentalization measures to limit the spread of fire, heat, and off-gas between battery modules and between the battery array and power conversion equipment:
 - a. Battery modules shall be physically separated from power conversion equipment (inverters, transformers, disconnects) by a fire-rated partition or by separate enclosures with a minimum fire-resistance rating of 1 hour, unless otherwise demonstrated acceptable by UL 9540A testing.
 - b. Where multiple battery racks or modules are housed within a single enclosure, the enclosure shall be designed such that thermal runaway in any single module does not propagate to adjacent modules under the conditions evaluated by UL 9540A testing. Documentation of UL 9540A test results demonstrating compliance with this requirement shall be provided as part of the submittal package.
 - c. All penetrations through fire-rated enclosure walls or partitions shall be sealed with listed firestop assemblies maintaining the required fire-resistance rating.
4. Ventilation and Thermal Management. Enclosure ventilation and thermal management systems shall satisfy the following requirements:
 - a. The enclosure shall provide sufficient ventilation or active cooling to maintain battery module temperatures within the Manufacturer's specified operating temperature range under maximum ambient temperature and maximum charge/discharge loading conditions.
 - b. For forced-air cooling systems, airflow shall be designed to prevent hot spots at individual modules. The Manufacturer shall provide thermal modeling or testing data demonstrating uniform temperature distribution within the enclosure under peak loading conditions.
 - c. For liquid-cooled systems, the cooling circuit shall be designed with leak detection capability. Any coolant leak detected within the enclosure shall trigger a Level 2 Alarm per Section B.6.b and shall automatically initiate protective shutdown.
 - d. Ventilation exhaust shall be directed away from personnel access areas, combustible materials, and building air intakes. For systems installed indoors, exhaust shall be ducted to the exterior of the building.

5. Personnel Access and Safety. Enclosures shall incorporate the following personnel safety features:
 - a. Minimum working clearances inside the enclosure shall comply with NFPA 70 (NEC) Article 110 for the applicable voltage level.
 - b. Interior lighting, rated for the installation environment, shall be provided and shall activate automatically upon enclosure door opening.
 - c. Emergency egress shall not be obstructed. Outward-swinging doors or sliding panels shall be used for all personnel access points.
 - d. Arc flash hazard labeling compliant with NFPA 70E shall be affixed to all enclosure doors providing access to energized conductors.

E. Fire Suppression System Requirements to prevent thermal propagation.

1. General Fire Protection Requirements. The ESS fire protection system shall be designed to detect, suppress, and contain fire within the ESS enclosure and to prevent thermal runaway propagation from cell to cell, module to module, and enclosure to enclosure. Fire protection systems shall be designed, installed, tested, and maintained in accordance with NFPA 855, NFPA 13 (where sprinklers are used), and the applicable requirements of NFPA 72 for initiating and notification devices.
2. Thermal Runaway Propagation Testing. Prior to system installation, the Manufacturer shall provide documentation demonstrating that the ESS has been tested for thermal runaway fire propagation in accordance with UL 9540A. The following conditions apply:
 - a. UL 9540A testing shall be performed at the system level (full-scale or a representative system configuration acceptable to the Township by an accredited third-party testing laboratory).
 - b. Test reports shall demonstrate that thermal runaway initiated in a single cell does not propagate beyond the boundaries established in the NFPA 855 maximum quantity and UL 9540 separation tables applicable to the installation configuration.
 - c. UL 9540A test reports shall be made available to the Township upon request and shall be included in the submittal package.
3. Detection System Integration. The fire detection system shall be integrated with the BMS alarm architecture described previously and shall comply with the following:
 - a. Listed spot-type heat detectors, rate-of-rise detectors, or aspirating smoke detection (ASD) systems shall be installed within the ESS enclosure. The detection technology selected shall be appropriate for the anticipated thermal runaway off-gas and combustion products of the specific battery chemistry.
 - b. Gas detection as specified in Section 3.E.4 shall serve as the primary early-warning mechanism. A confirmed gas detection event shall constitute a pre-action signal and shall activate pre-discharge notifications prior to suppression agent release where applicable.
4. Early Warning Gas Detection. The ESS enclosure should incorporate a multi-gas detection system capable of detecting the off-gasses characteristic of early-stage thermal runaway prior to visible flame or smoke. At minimum, the detection system should address the following:
 - a. Off-gas detection required. The ESS shall include a dedicated off-gas / electrolyte-vapor detection system capable of detecting thermal-runaway precursor gases at the off-gassing stage, prior to smoke or open flame, when warranted based on

- chemistry and system.
- b. Target gas species. Detection shall cover, at minimum, hydrogen (H₂) and carbon monoxide (CO). Monitoring of electrolyte vapors and hydrogen fluoride (HF) is required where chemistry warrants. H₂ alarm threshold shall be set at or below 25% of the lower flammable limit ($\leq 1\%$ v/v).
 - c. Independence from BMS. The detection system shall operate independently of the Battery Management System (BMS) and shall identify the affected rack/module. It shall remain functional in the event of a BMS fault.
 - d. Interlocks. Detection events shall automatically (a) initiate controlled shutdown / electrical isolation of the affected unit, (b) activate enclosure exhaust / ventilation, and (c) annunciate to the fire alarm panel per NFPA 72 and to remote monitoring.
 - e. Sensor placement & thresholds. Sensor quantity and placement shall be designed to off-gas accumulation points within each enclosure. Sensors shall carry third-party validation (e.g., UL 2075).
 - f. Gas detection shall be performed within the battery enclosure. For systems with multiple enclosures or compartments, detection shall be provided within each separately enclosed compartment.
5. Suppression System Requirements. The active suppression system for the ESS shall meet the following requirements:
- b. A listed, automatically actuated suppression system shall be installed within each battery enclosure or compartment. Acceptable suppression agent types include clean agent (e.g., HFC-227ea, FK-5-1-12), water mist, or inert gas systems, selected based on compatibility with the battery chemistry, enclosure volume, and other key parameters as determined by the manufacturer.
 - c. The suppression system shall be designed and installed by a licensed fire protection contractor in accordance with the applicable NFPA standard for the agent type (NFPA 2001 for clean agents, NFPA 750 for water mist, NFPA 2 for hydrogen, etc.).
 - d. The suppression system shall be capable of operating on battery power (independent of utility power) for a minimum of 24 hours following a utility outage.
 - e. Suppression agent quantity and nozzle design shall be sufficient to achieve the Manufacturer's specified extinguishing concentration throughout the protected volume, accounting for enclosure leakage, as demonstrated by a hold-time test conducted per the applicable NFPA standard.
 - f. Manual release stations shall be provided at each enclosure and at the site entrance or control point. Manual stations shall be clearly labeled and shall be accessible without requiring entry into the hazard area.
 - g. Post-discharge alarms shall be provided to notify personnel of an activated suppression event. Guidelines shall be provided about safe reentry.
 - h. Response procedures shall account for the potential for re-ignition. Suppression of thermal runaway does not extinguish the internal electrochemical reaction within individual cells. Suppression systems are intended to prevent thermal propagation and limit external fire spread.
6. Required Submittals:
- a. UL 9540 system listing and complete UL 9540A test report for the as-supplied configuration.
 - b. Gas detection system datasheets, sensor placement drawings, threshold/interlock logic, and UL 2075 (or equivalent) validation.
 - c. Fire suppression design package with hydraulic/agent calculations and NFPA 855 /

- NFPA 13 compliance basis.
- d. Hazard Mitigation Analysis (HMA) per NFPA 855 and integrated Emergency Response Plan.
 - e. Factory Acceptance Test (FAT) report covering fire detection/suppression function, thermal management, and BMS protection logic.
- F. Manufacturer Inspection Reports and Quality Assurance. The following documents shall be provided.
- 1. General Quality Assurance Requirements. The ESS manufacturer must maintain and operate a documented quality management system (QMS) for the design, manufacture, assembly, and testing of the ESS. The QMS must conform to ISO 9001 or an equivalent standard. Evidence of current QMS certification shall be submitted with the application for a Building Permit.
 - 2. Factory Acceptance Testing. Each ESS unit shall undergo Factory Acceptance Testing (FAT) at the Manufacturer's facility prior to shipping. At a minimum, FAT shall include and document results for the following and shall be submitted with the application for a building permit.
 - a. Thermal Management Performance: Verification that the thermal management system maintains all battery modules within the Manufacturer's specified temperature range under simulated maximum ambient and maximum load conditions. Test duration shall be sufficient to establish thermal steady-state. Inlet and outlet temperatures, coolant flow rates (liquid-cooled), and module-level temperature uniformity shall be recorded.
 - b. Electrical Circuitry Integrity: Verification of all high-voltage and low-voltage wiring, contactor and relay operation, overcurrent protection coordination, ground fault detection sensitivity, and BMS communication continuity. Insulation resistance testing (minimum 1,000 VDC megger, per IEEE 43 or equivalent) shall be performed on all power wiring. Results shall be documented with pass/fail criteria defined in the Manufacturer's FAT procedure.
 - c. Fire Suppression System Commissioning: Functional test of all detection devices (simulated), suppression system supervisory signals (pressure switches, flow switches, agent quantity), alarm and notification device actuation, and BMS integration (Level 3 alarm trigger to suppression pre-discharge signal). Actual suppression agent discharge is not required during FAT; simulated test mode is acceptable provided full-circuit continuity is verified.
 - d. Rated Capacity Verification: The ESS shall be charged to 100% SoC and discharged at rated power to minimum SoC, with energy throughput recorded. Delivered capacity shall be no less than 98% of nameplate rated capacity at the test conditions (temperature, rate) specified by the Manufacturer. Capacity results shall be documented with ambient temperature, charge/discharge rates, and cutoff voltages recorded.
 - e. BMS Functional Verification: Validation of all cell-level and system-level monitoring parameters per Section 3.B.2, including alarm threshold testing (simulated), data logging continuity, and remote monitoring connectivity.
 - f. Protection Device Coordination: Testing of all automatic protective actions (overcurrent, overvoltage, undervoltage, over-temperature, ground fault) to verify trip accuracy and response time against the Manufacturer's specifications.

The applicant shall produce a signed FAT Report from the Manufacturer documenting

- test procedures, pass/fail criteria, measured results, and any nonconformances with their disposition.
3. **Cell and Module Traceability.** The ESS Manufacturer shall implement a traceability system that enables individual cells and modules installed in each ESS unit to be traced to their manufacturing lot, production date, incoming inspection results, and formation/grading data. The following traceability documentation shall be provided within 10 business days upon request of the Township Clerk:
 - a. Cell lot/batch numbers for all cells installed in each ESS serial number.
 - b. Module serial numbers and their assigned rack/slot positions within the ESS.
 - c. Incoming inspection acceptance records for all cells and modules, including capacity grading results.
 - d. Any cells or modules subject to nonconformance disposition during production shall be identified with the nature of the nonconformance and corrective action taken.
 4. **Third-Party Certifications and Listing Documentation.** Prior to installation, the applicant shall provide Manufacturer's third-party certifications and listing documentation:
 - a. Current UL 9540 listing certificate for the complete ESS, including model number(s) applicable to the project.
 - b. Current UL 9540A test report(s) for the installed system configuration, as specified in Section 3.E.2.
 - c. IEC 62619 (or equivalent) cell-level safety certification for the battery cells used in the system.
 - d. Seismic certification report per Section 3.D.2.
 - e. IEEE 1547 interconnection compliance documentation and, where applicable, NERC CIP cybersecurity compliance attestation.
 - G. **Groundwater Plume Modeling.** A hydrogeological migration study mapping a 20-year projected travel of groundwater from the site and any potential impacts to groundwater levels, aquifers, or nearby surface waters based on extraction needs and demands, prepared by a third-party Michigan licensed professional engineer with expertise in groundwater modeling, shall be submitted. The Township's subject matter expert shall define the scope of the study including but not limited to assumed release rates, applicable site specific chemicals, soil and aquifer data, groundwater elevations and flow direction, nearby wells and surface waters, model calibration, uncertainty analysis, and mitigation thresholds.
 - H. **Air Dispersion Analysis.** A comprehensive analysis, by an individual or firm experienced in air quality dispersion analysis, simulating a fire caused by a thermal runaway event. The simulation must strictly follow the U.S. EPA Guideline on Air Quality Models (40 CFR Part 51, Appendix W, as may be amended). A certified third-party meteorologist or a Michigan licensed environmental engineer must verify all modeling inputs.
 - I. **Secondary Containment.** Secondary containment of all stormwater and firefighting water shall be provided as required in the Oshtemo Township Performance Standards for Groundwater Protection Within Wellhead Protection Capture Zones and Stormwater Quality Management regardless of whether or not the property is within a wellhead capture zone.
 - J. **Spill Contingency Plan.** The applicant shall demonstrate containment capacity for the greater of: (1) the firefighting-water volume identified through the project-specific hazard mitigation analysis and emergency-response plan, plus precipitation pursuant to the

Township's stormwater management requirements; or (2) another volume approved by the Fire Chief and the Township Engineer or other qualified professional selected by the Township Engineer. Containment systems shall be chemically compatible, sufficiently impermeable, hydraulically isolated from groundwater and stormwater infiltration facilities, equipped with controlled discharge mechanisms, and maintained available during the operational life of the facility through decommissioning. No contained liquid may be discharged until characterized by an independent laboratory and shown to satisfy applicable water-quality and disposal requirements.

- K. **Baseline Data and Continued Monitoring.** Baseline soil and groundwater sampling at the property shall be obtained prior to issuance of a Building Permit. Permanent monitoring wells shall be established at locations agreed upon by the Township Engineer or other qualified professional selected by the Township Engineer on his/her behalf.
- L. **Long-term Groundwater Monitoring.** Groundwater from the monitoring wells shall be tested annually for metals, PFAS (if equipment warrants), VOCs, conductivity, pH, lithium and fluoride (where appropriate). The Township Engineer or other qualified professional selected on his/her behalf may add to the list of contaminants to include in the testing. The annual test results shall be sent to the Township Clerk by March 31 of each year.
- M. **Setbacks:** Setback distance shall be measured from the stated location below to the nearest edge of the perimeter fencing of the principal use ESS as follows:
 - 1. Sensitive Land Uses: 2,000 feet from the nearest point on the outer wall of the building or residence.
 - 2. Occupied community buildings on non-participating properties: 400 feet from the nearest point on the outer wall of the building.
 - 3. Public road right-of-way: 300 feet from the nearest edge of a public road right-of-way.
 - 4. Non-participating properties: 300 feet from the nearest shared property line.
 - 5. Specialty Crop Farms: 1,000 feet from the nearest property line.
 - 6. Combustible vegetation or materials, refuse or debris: 10 feet from any side of the ESS installation.
- N. **Sound:** The sound pressure level of a principal use ESS shall not exceed 30 dBA (Leq (1-hour)) as modeled at the property line shared with an adjacent non-participating residential lot. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.
- O. **Lighting:** The principal use ESS shall comply with Section 54.
- P. **Drive aisles:** Internal and perimeter drive aisles shall comply with Section 52.50.C.
- Q. **Emergency Response Plan.** In addition to the provisions of Section B.3.p, an Emergency Response Plan shall be in compliance with 2026 NFPA 855, specifically Annex G. The ERP shall not be construed to supersede or replace the Emergency Operations Plan (EOP) required by NFPA 855; both shall be maintained.
 - 1. The ERP shall be developed by or under the supervision of the ESS owner or operator, in consultation with the Oshtemo Township Fire Department, to ensure alignment with the department's procedures, capabilities, and equipment. The owner or operator shall

document all coordination efforts.

2. The ERP shall be submitted to the Oshtemo Township Fire Department as part of the application for special use approval. No certificate of occupancy or operating permit shall be issued without Oshtemo Township Fire Department review and approval; such review and approval shall not be unreasonably withheld. A current approved copy shall be:
 - a. Maintained on-site in a weather-resistant enclosure outside the perimeter fence, accessible to first responders without requiring facility entry;
 - b. Provided to the Oshtemo Township Fire Department and submitted to the Oshtemo Township Fire Department after being updated with each revision; and
 - c. Made available to the Oshtemo Township Fire Department within twenty-four (24) hours upon request.
 3. The ERP shall be reviewed and resubmitted to the Oshtemo Township Fire Department not less than every three (3) years, and additionally following:
 - a. Any material change to the ESS;
 - b. Any ESS incident requiring fire department response;
 - c. Change in ownership or operator; or
 - d. Change in Oshtemo Township Fire Department contacts or protocols.
- R. Fire Response Plan. In addition to the provisions of Section B.3.o, a Fire Response Plan satisfying the requirements of Appendix B shall be provided before a Building Permit may be issued.
- S. Safety Signage: The principal use ESS shall post signs in compliance with IFC 2024, NFPA 70 and NFPA 855 or any applicable successor codes in place at the time of commencement of construction including information on the system type and technology, special hazards, fire suppression system and 24-hour emergency contact information, including reach-back phone number. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations. Signs shall be legible, weather-resistant, and maintained in good condition for the operational life of the facility
- T. Perimeter Fencing and Signage. In addition to the signage on ESS enclosures, signage shall be posted on all perimeter security fences and barriers at intervals not exceeding two hundred feet (200 feet). Signs shall be legible, weather-resistant, and maintained in good condition for the operational life of the facility. Perimeter signage shall be accessible from outside the fence line and shall include:
- a. The name and 24-hour emergency contact information for the owner or operator;
 - b. A site map identifying the locations of ESS enclosures, access points, utility disconnects, and isolation controls;
 - c. Identification of relevant hazard warnings, including battery chemistry type and associated risks;
 - d. The isolation zone distance that response personnel should maintain from the ESS during a fire or explosion risk event; and
 - e. The date the signage was last verified to be accurate, updated annually.

Additional signage may be permitted subject to the requirements of Section 55.

- U. Explosion Control Panel Identification. Where explosion control systems (deflagration

venting panels or explosion prevention systems) are installed, all panels, venting devices, and associated equipment shall be clearly and permanently labeled to enable first responders to identify and stay clear of hazard zones associated with potential overpressure events.

- V. Operation and Maintenance Manual. An Operation and Maintenance Manual satisfying Appendix C shall be provided. Such plan shall describe continuing ESS maintenance and property upkeep, as well as design, construction, installation, testing and commissioning information and shall meet all requirements set forth in Appendix C, the Fire Code, and Michigan Construction Code.
- W. For lithium ion installations, a pre-incident plan for responding to fires, explosions and other emergency conditions developed with the Oshtemo Fire Department satisfying 2026 NFPA 855 or any successor standard.
- X. Michigan Public Service Commission Requirements. A principal use ESS shall comply with any more stringent requirements adopted by the MPSC as provided in MCL 460.1226(8)(c)(v).
- Y. Repair and Augmentation. In addition to repairing or replacing system components to maintain the system, the system may at any time be augmented without the need to submit a new site plan provided the augmentation is within the same footprint (i.e., same dedicated use building or on footings/foundations in the same location) as the original permit. If there is a change in the battery chemistry, an updated Hazard Mitigation Analysis, Fire Response Plan and Emergency Response Plan shall be provided. When a system is anticipated to be augmented over its lifetime by adding additional components, the applicant shall apply for the final/augmented site arrangement.
- Z. Modifications that increase an ESS facility footprint or total energy capacity by 10% or more require a new site plan and special use approval by the Planning Commission.
- AA. Any replacement of a battery or transformer, major maintenance, emergency drills or planned outages requires written notification to the Township Clerk and/or designated personnel at least 30 days prior.
- BB. Any increase in energy capacity requires written notification to the Township Clerk and/or designated personnel at least 30 days prior.. All obligations, including but not limited to the Community Host Agreement and decommission agreement, must be updated to reflect the increase in energy capacity. The financial surety shall be increased if there is an increase in energy capacity.
- CC. Hazard Mitigation Analysis. A Hazard Mitigation Analysis in compliance with NFPA 855 (4.4) shall be provided.
- DD. Public Safety. The Emergency Response Plan and Fire Response Plan shall provide reasonable protection of the public health, safety and welfare including but not limited to an emergency shutdown procedure in place and shall provide the Oshtemo Fire Department site safety plans to include electrical, fire, smoke, and hazardous materials release, emergency response protocols and identification of typical hazards related to, electrical, fire, smoke and hazardous materials pertinent to the system. Upon request, all systems shall provide first responder training at the site.

EE. Annual Meeting and Report. In addition to the requirements of Section C.1.g, an Annual Meeting shall be held by the Planning Commission to review the Annual Report. The Annual Report shall be provided to the Township Clerk no later than March 31 of each year for the life of the ESS, the Annual Meeting shall be scheduled thereafter. The Annual Report shall include the following information for the reporting period:

1. Facility and Permit Identification
2. Physical Modifications and Equipment Changes:
 - a. All material modifications to the ESS, including augmentation capacity changes, or configuration changes;
 - b. All component replacements, including battery modules, inverters, BMS units, fire protection equipment, or structural elements;
 - c. Whether any modification triggered special land use approval / amendment under Section 10; and,
 - d. The date and description of any sealed as-built drawing updates filed with the Township Clerk.
3. Operational Performance Summary. The Annual Report shall provide a summary of ESS operation performance, including:
 - a. Total energy discharged during the reporting period (MWh), if metered and available;
 - b. Total number of operating hours and any extended outages exceeding thirty (30) days;
 - c. Summary of BMS fault and alarm events, including frequency and resolution;
 - d. Summary of thermal management system performance, including any overtemperature events; and
 - e. General assessment of battery module health and state of capacity degradation, if available.
4. Safety Incidents and Emergency Service Calls. The Annual Report shall disclose:
 - a. All incidents that required a response from the local fire department, emergency medical services, or law enforcement, including date, nature of incident, responding agencies, and resolution;
 - b. All thermal runaway events, fires, explosions, or hazardous material releases, regardless of whether emergency services were dispatched;
 - c. All BMS alarms or fault conditions that resulted in automatic or manual ESS shutdown;
 - d. Any regulatory agency notices, citations, or inspections related to ESS safety or compliance; and
 - e. Any voluntary or mandatory recalls of ESS equipment issued by the manufacturer or a regulatory agency during the reporting period.
5. Maintenance and Service Records Summary. The Annual Report shall include a summary of O&M activities, including:
 - a. Confirmation that all required inspections and testing were performed on schedule, with dates;
 - b. Summary of significant maintenance findings and corrective actions taken;
 - c. Any deferred maintenance items and the planned schedule for resolution; and
 - d. Confirmation that the O&M Manual, Fire Response Plan, and Emergency

Response Plan are current and reflect as-built conditions.

6. Complaints and Community Relations. The Annual Report shall disclose:
 - a. All written complaints received from neighboring property owners, residents, or the public concerning the ESS, including complaints related to setbacks, noise, visual impacts, lighting, odors, road use, or safety;
 - b. The disposition and resolution of each complaint; and
 - c. Any unresolved complaints and the anticipated resolution timeline.
 7. Insurance and Financial Assurance. The Annual Report shall include:
 - a. Confirmation that required liability insurance coverage is in force, with the name of the insurer, policy number, coverage limits, and expiration date;
 - b. Confirmation that required financial assurance for decommissioning (surety bond, letter of credit, or equivalent) remains in full force and effect; and
 - c. Notice of any material change in insurance carrier, coverage terms, or financial assurance status during the reporting period.
 8. Emergency Response Plan Status. The Annual Report shall confirm:
 - a. That the Emergency Response Plan (ERP) has been reviewed for accuracy and is current;
 - b. Whether annual first responder training was offered, including the date, attendees, and any documentation of offers declined by the fire department; and
 - c. Whether any changes to the ERP were made during the reporting period, and if so, whether an updated ERP was submitted to the Oshtemo Fire Department and Township Clerk.
 9. Personnel and Contact Updates. The Annual Report shall confirm or update:
 - a. Current 24-hour contact information for the owner, operator, and all designated emergency contacts;
 - b. The identity and qualifications of currently designated Fire Mitigation / Hazard Support Personnel; and
 - c. Any change in ownership or operational responsibility during the reporting period.
 10. Approval Compliance Certification. The Annual Report shall include a signed certification by the owner or operator attesting that:
 - a. The ESS has been operated in material compliance with the special land use approval, this ordinance, and all applicable state and federal laws during the reporting period;
 - b. All information provided in the Annual Report is accurate and complete to the best of the owner/operator's knowledge; and
 - c. Any known material violations or non-compliance issues are identified and a corrective action schedule is provided.
 11. Environmental compliance (reporting on compliance with all relevant environmental regulations and standards such as but not limited to the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106);
- FF. Bi-Annual Re-Certification. In addition to the Annual Report, the owner or operator shall submit a bi-annual re-certification to the Township Clerk every two (2) years from the date of initial special land use approval. The re-certification shall:

- a. Confirm that the ESS equipment continues to meet applicable safety standards, including UL 9540 listing;
 - b. Confirm that the O&M Manual and ERP are current;
 - c. Confirm that required financial assurance for decommissioning has been updated to reflect current cost estimates; and
 - d. Be signed and certified by the owner or operator and submitted under penalty of perjury or equivalent legal attestation.
- GG. Pollution Liability Insurance shall be maintained until the site is fully decommissioned with annual proof provided to the Township Clerk by the owner that the pollution liability insurance remains sufficient and in effect. The Township shall be named as additional insured on such policy. The pollution liability insurance shall provide for, in the case of a thermal runaway event, the following:
- a. Full clean-up of any soil and/or groundwater contamination;
 - b. Replacement of any private wells impacted within a 20-year period following an incident;
 - c. The cost to extend public water and connect residences if private wells are no longer permitted due to contamination;
 - d. Expenses incurred by residents in the event they are evacuated and/or displaced from their homes;
 - e. Loss of crops and/or farm animals;
 - f. On going studies of environmental contamination and groundwater evaluations for a period of 20 years following an event;
 - g. Maintain ten million (\$10,000,000) dollars in liability coverage.
 - h. *What else?*
9. **Hybrid Energy System, Principal use:** A hybrid principal use system incorporating any combination of energy storage system (ESS), solar energy system (SES) and wind energy system (WES), where permitted, is subject to special land use approval by the Planning Commission, and/or other applicable authority, and shall meet the above requirements based upon the applicable energy systems. When there is a conflict, the stricter provision shall apply.

Section 48.170 – Specific Provisions, Energy Systems, Private Accessory

The following requirements shall apply to Private Accessory Systems.

1. Solar Energy Systems, Private Accessory.
 - A. Maximum Height: The system may be mounted on a building and/or may be ground mounted.
 1. The height of a building-mounted system on a principal building or accessory building shall not exceed the applicable roof height limit as specified in the ordinance for the district, as applicable.
 2. The height of a ground-mounted system, at full tilt, shall not exceed a height of 10

feet.

- B. **Roof Placement:** A roof-mounted system shall be placed on the roof in compliance with requirements imposed by the applicable Fire Code and Construction Code.
- C. **Total Area:** The total area of a building-mounted collector array and all apparatus associated with the system shall not be larger than the square footage of or hang over the roof when attached to the roof or, when attached to a wall, be larger than the square footage of or extend beyond the building wall. A ground-mounted system on a residential property shall not exceed the total combined maximum accessory building square footage limit as specified in the zoning ordinance or 1,000 square feet, whichever is less.
- D. **Setbacks and Location:** The collector array and all other apparatus associated with a ground-mounted system shall comply with the otherwise applicable accessory building setback requirements in the zoning ordinance.
- E. **Off-site Impacts:** The collector panels and all other components of the system not within a fully enclosed building shall comply with all of the following requirements:
 - 1. All components of the system not fully enclosed within a building shall be designed and maintained with an anti-reflective surface material.
 - 2. All components shall be designed and operated to not direct glare onto any adjoining property or any public road or other public way.
 - 3. The system shall not be illuminated or have lighting of any kind.
 - 4. Lettering, company insignia, advertising, or graphics of any kind shall not be displayed on any part of the system, except such non-obtrusive lettering and/or insignia intended to identify the manufacturer and not visible from any adjoining property or adjoining public road or other public way.
 - 5. The area within which a ground-mounted system is located shall not be paved with asphalt/concrete or any other surface material that is impermeable. This shall not apply to a ground-mounted system located on brownfield land or on an existing paved area such as a former building slab or in an unused parking area where adequate parking remains for the principal use. All surface water runoff from the site shall be effectively managed on-site.
- F. **Installation and Operational Safety:** The system shall comply with all of the following requirements:
 - 1. The system shall be installed, maintained, and used in accordance with manufacturer's directions. If the system will include any batteries for electricity storage, the location of the batteries shall be disclosed to and approved in writing by the Fire Chief and filed with the Building Permit application for the system. Battery storage shall be designed, located, and maintained so as to comply with all applicable codes and regulations.
 - 2. The system shall not be made operational until the Building Official has issued a Certificate of Occupancy upon determining that the completed system installation complies with all applicable Construction Code requirements.

- G. Removal: The system, including all structural support components, shall be dismantled and removed when the system is no longer functional due to age, abandonment, or other cause. All removed components of the system intended for disposal shall be disposed of off-site in accordance with all applicable laws and regulations.

2. Wind Energy Systems, Private Accessory

- A. Setbacks: Setback distance shall be measured from the stated location below to the center of the base of the wind tower as follows:
1. Occupied community buildings and residences on non-participating properties: A horizontal distance equal to 2.1 times the maximum blade tip height from the nearest point on the outside wall of the structure.
 2. Residences and other structures on participating properties: A horizontal distance equal to 1.1 times the maximum blade tip height from the nearest point on the outside wall of the structure.
 3. Non-participating property lines: A horizontal distance equal to 1.1 times the maximum blade tip height from the property line;
 4. Public road right-of-way: A horizontal distance equal to 1.1 times the maximum blade tip height from the center line of the public road right-of-way;
 5. Overhead communication and electric transmission, not including utility service lines to individual houses or outbuildings: A horizontal distance equal to 1.1 times the maximum blade tip height from the center line of the easement containing the overhead line.
- B. Height: The system may be mounted on a building and/or may be ground mounted.
1. The height of a building-mounted system on a principal building or accessory building shall not exceed the applicable height limit for the district. A wall-mounted system on a principal building or accessory building shall not exceed the applicable roof height limit for the district, as specified in the ordinance for the district, as applicable.
 2. The height of a ground-mounted system shall not exceed 60 feet above natural grade.
- C. Roof Placement: A roof-mounted system shall be placed on the roof in compliance with requirements imposed by the applicable Construction Code.
- D. Ground Clearance: On freestanding systems, the rotor shall be located on the tower or support such that the minimum blade clearance above ground level is 20 feet.
- E. Sound: The sound pressure level generated by the system shall not exceed 30 dBA (Leq (1-hour)) measured at the nearest point on the outer wall of the nearest dwelling of an adjacent non-participating lot. Decibel modeling shall use the A-weighted scale as designed by the American National Standards Institute.
- F. Lighting: The system shall be equipped with light-mitigating technology.
- G. Wiring: All wiring between the system and the main use or electrical grid shall be underground.

- H. The system shall not display lettering, company insignia, advertising, or graphics of any kind on any part of the system, except such non-obtrusive lettering and/or insignia intended to identify the manufacturer, which shall not be visible from any adjoining property or adjoining public road or other public way.

3. Energy Storage System, Private Accessory.

- A. Coverage: Lot coverage shall not exceed the otherwise permissible percentage of lot coverage in the applicable district, as specified in Section 50.
- B. Setbacks: All energy storage system structures and related structural apparatus not physically attached to a building shall satisfy the setback requirements in the applicable district, as specified in Section 50.
- C. Lettering, company insignia, advertising, or graphics of any kind shall not be displayed on any part of the system, except such non-obtrusive lettering and/or insignia intended to identify the manufacturer and not visible from any adjoining property or adjoining public road or other public way.
- D. Installation and Operational Safety: The system shall comply with all of the following requirements:
 - 1. On-Site battery energy storage with an aggregate energy capacity of more than 600 kWh are subject to additional regulations in the applicable fire code, UL 9540, and required documentation shall be submitted along with the building/electrical permit applications.
 - 2. The system shall be installed, maintained, and used in accordance with manufacturer's directions. If the system will include any batteries for electricity storage, the location of the batteries shall be disclosed to and approved in writing by the Oshtemo Township Fire Chief and filed with the Building Permit application for the system. Battery storage shall be designed, located, and maintained so as to comply with all applicable codes and regulations.
 - 3. The system shall not be made operational until the Building Official has issued a Certificate of Occupancy upon determining that the completed system installation complies with all applicable Code requirements.
- E. Removal: The system, including all structural support components, shall be dismantled and removed when the system is no longer functional due to age, abandonment, or other cause.

Notes:

- 1) *Delete Section 60 which addresses solar energy systems to incorporate them with these amendments.*
- 2) *Eliminate references to WECS throughout all the districts.*
- 3) *Determine which districts to allow the different Principal Use Energy System as a Special Use. Private accessory systems will be allowed in all districts.*

Memorandum



Date: July 31, 2026
To: Planning Commission
From: Jodi Stefforia, Planning Director
Subject: Public Comments Received via Email

Attached are the comments received via email regarding the potential energy systems ordinance. As noted at both the Planning Commission and Township Board meetings, these comments are being included in the meeting packet with the first draft. Any additional correspondence received will be shared in the same manner.

Please note that sources have not been cited in most of the information shared nor provided subsequent to their submission for verification.

Attachments

From: [REDACTED]
To: [Colten Hutson](#)
Cc: [Dusty Farmer](#)
Subject: Re: Contact Form Submission - [REDACTED]
Date: Friday, January 23, 2026 7:11:09 PM
Attachments: [image001.png](#)

CAUTION: External Email

Hi Colten,

Thank you very much. I appreciate the guidance. You guys are doing a great job with such a difficult topic.

Go Cats!!!

Thanks for remembering

Best Regards,

[REDACTED]

Get [Outlook for Android](#)

From: Colten Hutson <chutson@oshtemo.org>
Sent: Friday, January 23, 2026 2:05:02 PM
To: [REDACTED]
Cc: Dusty Farmer <dfarmer@oshtemo.gov>
Subject: RE: Contact Form Submission - [REDACTED]

Good afternoon [REDACTED]

We are in receipt of your comments and do appreciate the feedback provided.

To stay informed as to where the Township is at on such matters, I recommend following the Township's social media pages as well as visiting the Township's webpage. This is where you would be able to find information on meetings amongst other updates.

Wishing you the best of luck ahead of tomorrow's showdown between the Jayhawks and your Wildcats.

Have a great weekend,

Colten Hutson

Zoning Administrator

Oshtemo Charter Township
[7275 W. Main St, Kalamazoo, MI 49009](http://www.oshtemo.org)
Direct: (269) 216-5231
Office: (269) 375-4260
Fax: (269) 375-7180

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From: [REDACTED]
Sent: Thursday, January 22, 2026 6:03 PM
To: Planning <planning@oshtemo.org>
Subject: Contact Form Submission - [REDACTED]

CAUTION: EXTERNAL EMAIL

Department & General Contact Form

Entry Details

SELECT A DEPARTMENT TO SEND
YOUR MESSAGE TO:

Planning & Zoning

Form Content

SUBMIT ANONYMOUSLY?

No

NAME

[REDACTED]

[REDACTED]

[REDACTED] [net](#) [REDACTED]

PHONE

[REDACTED]

PROPERTY ADDRESS

[REDACTED]

QUESTION / COMMENT

Hi, my property borders the possible BESS site. I understand that the Board has tasked you to propose a workable ordinance. If possible please consider the following:

- size of facility foot print. 260MW is not so big, but a 5000 MW would be big. My concern is that if a storage facility exists, the State may say expand existing facilities foot prints to meet their goal of 40000 MW. This would cause a concern for me since the State could enforce emanate domain on my property. (The ITC problem we had is evidence of this). Sorry I do not trust the state.
- decommissioning, Upgrading and removing hazardous material.
- on site junk and spare parts should not be stored in the open. Also grounds keeping to blend in with the residential and farming community.
- safety, light, noise and other key issues I am sure you are including so I will not mention.

Thank you for hearing my personal concerns.
Best Regards,

[REDACTED]

Confidentiality Notice: The information contained in this electronic mail message and any attachments is intended only for the use of the individual or entity to which it is addressed and may contain legally privileged, confidential information, or work product. If the reader of this message is not the intended recipient, you are hereby notified that any use, dissemination, distribution, or forwarding of the e-mail message is strictly prohibited. If you have received this message in error, please notify me by e-mail reply, and delete the original message from your system.

From: [REDACTED]
To: [Planning](#)
Subject: Contact Form Submission - [REDACTED]
Date: Tuesday, June 2, 2026 12:55:28 PM

CAUTION: EXTERNAL EMAIL

Department & General Contact Form

Entry Details

SELECT A DEPARTMENT TO SEND
YOUR MESSAGE TO:

Planning & Zoning

Form Content

SUBMIT ANONYMOUSLY?

No

NAME

[REDACTED]

[REDACTED]

[REDACTED] not

PHONE

[REDACTED]

PROPERTY ADDRESS

[REDACTED]

QUESTION / COMMENT

Good Afternoon,

I see that there is a meeting this Thursday about the Bess Battery location. I also see that there is a Planning Commission meeting next week on a proposed ordinance. I can not make either of these meetings as I will be out of town on these dates. I live in that area and I want to discourage Oshtemo from doing anything that would facilitate this battery storage system from going in.

I understand the need for the opportunity

for this type of storage and I understand the value it brings to a community, but it belongs in an industrial location. I have lived in Oshtemo most of my entire life. I struggle to see how paving the way for an industrial storage system to be allowed into a very rural community goes along with what I have believe to be the hallmark of what Oshtemo has stood for which is safety and appropriate development for the community.

Please keep industrial projects in industrial areas. Don't endanger communities by allowing something that doesn't belong in the area. Put it along the highway, put it in an industrial area. Put it somewhere where families other than where families are raising their children.

Thanks,

[REDACTED]

From: [Jodi Stefforia](#)
To: [REDACTED]
Cc: [Cheri Bell](#); [David Kobb](#)
Bcc: [Colten Hutson](#); [Leeanna Harris](#)
Subject: RE: Contact Form Submission - [REDACTED]
Date: Monday, June 8, 2026 3:59:00 PM
Attachments: [image001.png](#)

[REDACTED]

Thank you for your email. I will share your message with the Planning Commission when they begin working on ordinance language.

Kill them with kindness,

Jodi Stefforia
Planning Director
Oshtemo Charter Township
7275 West Main Street
Kalamazoo, MI 49009
Main: 269.375.4260
Direct: 269.216.5232
jstefforia@oshtemo.org



From: [REDACTED]
Sent: Friday, June 5, 2026 4:11 PM
To: Planning <planning@oshtemo.org>
Subject: Contact Form Submission - [REDACTED]

CAUTION: EXTERNAL EMAIL

Department & General Contact Form

Entry Details

SELECT A DEPARTMENT TO SEND
YOUR MESSAGE TO:

Planning & Zoning

Form Content

SUBMIT ANONYMOUSLY?

No

NAME

[REDACTED]

EMAIL

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

QUESTION / COMMENT

We are against placing the BESS electricity storage facility at the proposed S. VanKal street, Oshtemo site. Reasons include those stated in the citizens for responsibility development --sw michigan-501(c)4 literature. Also I understand that BESS is a LLC specific for Oshtemo suggesting the company could withdraw at any point in development or operation leaving Oshtemo with any resulting required debts for finishing project or operational costs. [REDACTED]

Good evening Board and neighbors,

My name is [REDACTED], my husband and I have enjoyed living across from the Fish Hatchery for over 20 yrs. We are 1.5m away from the proposed site, in Almena Township. I'm here for my first mtg. to speak with an objective to preserve this area and ALL the surrounding areas that could be affected by the proposed BESS battery storage facility.

I was recently made aware of the proposed BESS battery plant after receiving a postcard alerting me of the proposed site. That postcard was sent by my neighbors, and for that I thank them greatly!

As I learn more about this project, my reactions are those of fear, and great concern. My husband and I have recently retired and plan to remain living in our home, as we love the area for its wildlife, trails, and many farms in the area, just to mention a few great attributes of living in this area.

I attended the community forum and last night's mtg. at Pistol Farms in an attempt to quickly get up to speed and I'm left to wonder;

1. Why am I only finding out now if this has been in the works since last August?
2. What are the local leaders doing to ensure the residents' safety?
3. Has the township been transparent with the community up to this point regarding the proposal?
4. What can be done now to stop this?
5. What is the Township getting in exchange for a dangerous battery plant?
6. When will a draft of the ordinance be available for review? After residents receive the draft, how long will we have to review it?
7. Does writing an ordinance give the impression that our Township is welcoming the battery plant? Is it better just to say "no" rather than put forth the impression that we are welcoming it with an ordinance? Is there anything in writing on this?

We, the residents, are not welcoming this. If anyone is welcoming this it is merely the township leaders.

What I've learned in this short amount of time is the following;

1. The community members led an attempt to recall some of the board members. That recall failed.
2. Since then, the community members have felt that there is a lack of transparency and education with this issue.
3. These lithium battery plants have caught on fire sending dangerous chemicals 30-40 miles from the sites which have negatively affected animals, plants, wetlands, residents' health and property values.

4. The battery fires cannot be put out with water; they must be allowed to burn out on their own.
5. The township has a planning commission whose job is to create a working ordinance that, if accepted, would allow the battery plant to operate within the ordinance parameters. If the ordinance is rejected the decision can be appealed to the state who can then allow the battery plant to operate under PA 233.

Some of my concerns are;

Who will protect my and my neighbors property and its value?

How can our health and wellness be protected?

Who is advocating to protect the water at sites such as the Wolf Lake Fish Hatchery, our private wells, Prairie Ridge Elementary School on 9th street and nearby farms?

Approval of this project would not be in the best interest of the State when a state funded Fish Hatchery, and school are nearby that could be negatively affected.

I stand in solidarity with my neighbors that the BESS battery storage cannot be placed in our rural residential area.

It must be moved to an industrial area, IF it must be here at all.

No amount of money for the Township is worth a battery fire in our area that will destroy everyone's property, wells, food supply, etc.

Per the audit review tonight, the Twsp has a healthy fund balance and budget at this time, making it unnecessary to garner funds from a project such as this.

We should not be rushing to be a part of this. The technology is too new, fails too often and there are not enough checks and balances to keep us safe.

Please, we need you to do everything in your power to stop this and/or place it in an industrial area that's more appropriate.

Although, I'm not convinced any area is appropriate, nor safe for these batteries to operate.

From: [REDACTED]
To: [Oshtemo](#); [Cheri Bell](#); [Clare Buszka](#); [Dusty Farmer](#); [Kristin Cole](#); [Michael Chapman](#); [Neil Sikora](#); [Zak Ford](#); [Jodi Stefforia](#)
Subject: Formal Notice Regarding Less-Impactful Alternative Sites for Proposed S Van Kal BESS Project
Date: Tuesday, June 16, 2026 9:02:13 AM
Attachments: [OshtemoTownship-Formal-Notice-S-Van-Kal-BESS-Alternative-Sites-C4REDSWMI-June-2026.pdf](#)

CAUTION: External Email

Oshtemo Township Board Members and Planning Commission,

Attached please find formal written notice regarding feasible, less-impactful alternative sites, amongst others for the proposed S Van Kal Street battery energy storage system project in Oshtemo Township, Michigan.

This notice is being provided before further financial, procurement, or siting commitments are made so that the developer, project partners, utility counterparties, and financial parties are aware that less-impactful alternative sites exist along the same general transmission corridor.

To be clear, this notice is not opposition to battery storage as a technology. The concern is siting. The currently proposed S Van Kal Street parcel directly adjoins homes, families, children, farm animals, and specialty farms, while other less-impactful industrial, commercial, disturbed, or developed sites appear to be available nearby.

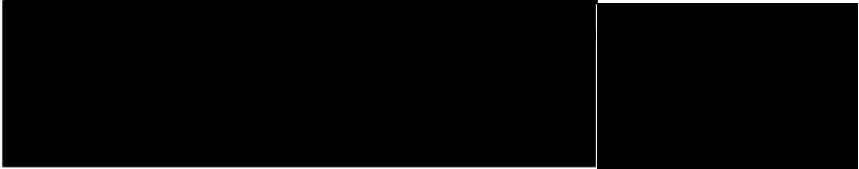
Please retain the attached correspondence with the project record.

Sincerely,

[REDACTED]

[REDACTED]

[REDACTED]



June 15, 2026

Via Email and Mail

Oshtemo Township Board and Planning Commission
7275 West Main Street
Kalamazoo, MI 49009

Submitted to: Oshtemo Township Clerk, Township Board, Planning Commission, and Planning Director

Re: Formal Notice of Feasible, Less-Impactful Alternative Sites for Proposed S. Van Kal Street / Weeds Lake BESS Project

Dear Planning Director Stefforia, Township Board Members, and Planning Commissioners:

We are writing regarding the proposed battery energy storage system currently being pursued for the S. Van Kal Street site in Oshtemo Township, Kalamazoo County, Michigan.

This letter is intended to place NewEdge, its project partners, and any financial or investment parties on written notice that less-impactful alternative industrial zoned locations appear to exist near the same general transmission corridor. Nothing in this letter should be read as an attempt by residents to select, design, or dictate a project site. Site selection remains the developer's responsibility. The purpose of this correspondence is to preserve the record that the S Van Kal Street parcel (#05-30-305-028) in Oshtemo Township is not the only apparent option.

The currently proposed S Van Kal Street site is not an isolated industrial parcel. It shares property lines with eight residences and is immediately adjacent to rural-residential families, children, farm animals, specialty farms, private wells, wetlands, wildlife corridors, migratory bird pathways, and critical, highly vulnerable watershed area. By contrast, the alternative industrial locations identified with this notice appear, based on initial review to be located beside busy, existing industrial or commercial uses where noise, traffic, and land-use impacts are already more compatible with industrial activity.

The MPSC application instructions make alternative-site review directly relevant. They require a: *“Map and description of each alternative site location, proposed site layout, or other alternatives that are or were considered, including rationale for why alternative locations were not selected for development.”*

The MPSC also require a: *“Description of feasible alternative developed locations”* for projects proposed on undeveloped land, except brownfields. Those requirements are why this notice is being provided now, before major financial commitments or application milestones. Any future explanation of site selection should account for the existence of feasible industrial, commercial, disturbed, or already-developed alternatives that appear to reduce direct conflicts with occupied structures, specialty farms, livestock, wells, and rural neighborhoods within the 1,000-foot review area.

The Graham Sustainability Institute, Center for EmPowering Communities, and EGLE guide confirms that transmission proximity is relevant, but not absolute: *“Off-site BESS projects, like utility-scale renewable energy projects such as solar and wind, require proximity to power lines and, ideally, electric substations. Although there is no strict rule about how close a BESS must be to a power line or substation, sites located closer are generally more cost-effective, as they eliminate the need to extend lines to the substation or construct new substations. Besides the cost benefits, closer proximity also helps reduce energy losses. The largest off-site BESS typically connect to the transmission grid, while smaller projects may connect directly to the local distribution grid.”*

That guidance confirms there is no strict rule requiring this project to be located on the S. Van Kal Street parcel or immediately beside the nearest substation if other feasible locations exist.

The same Graham guidance also explains that larger transmission-connected BESS facilities may be appropriate in districts: *“where noise and fire risk may be less problematic due to large open spaces (e.g., agricultural/resource production areas) or where land uses pose similar impacts (e.g., industrial zones).”*

That distinction is central to this notice. The phrase “agricultural/resource production areas” should not be treated as a shortcut for placing a utility scale BESS on any farmed parcel. The relevant question is whether the location actually provides large open-space separation, or whether surrounding land uses already pose similar industrial-type impacts. The S Van Kal Street parcel does not appear to meet that practical standard. The industrial alternatives identified with this notice appear to present the kind of land-use comparison the guidance contemplates.

MPSC Chair Dan Scripps summarized the same principle at the April 30, 2026 MPSC meeting when he stated that infrastructure decisions require: *“the right strategy in the right place.”*

That principle applies here. This notice is not a statement that battery storage can never be appropriate. It is notice that this specific rural-residential site raises conflicts that appear avoidable if feasible lower-conflict locations exist along the same general transmission corridor.

Please treat this correspondence as formal written notice that the S. Van Kal Street parcel is not the only apparent feasible location for this project, and that less-impactful alternative locations have been identified for consideration before further financial, development, or application commitments are made.

Sincerely,

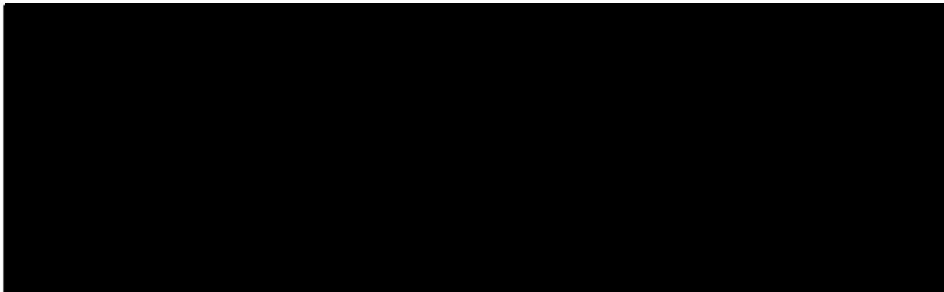


Exhibit A is the updated Existing Land Uses Map of Oshtemo Township, noting in red approximately where the 7 mile high transmission line tract runs through Oshtemo Township..

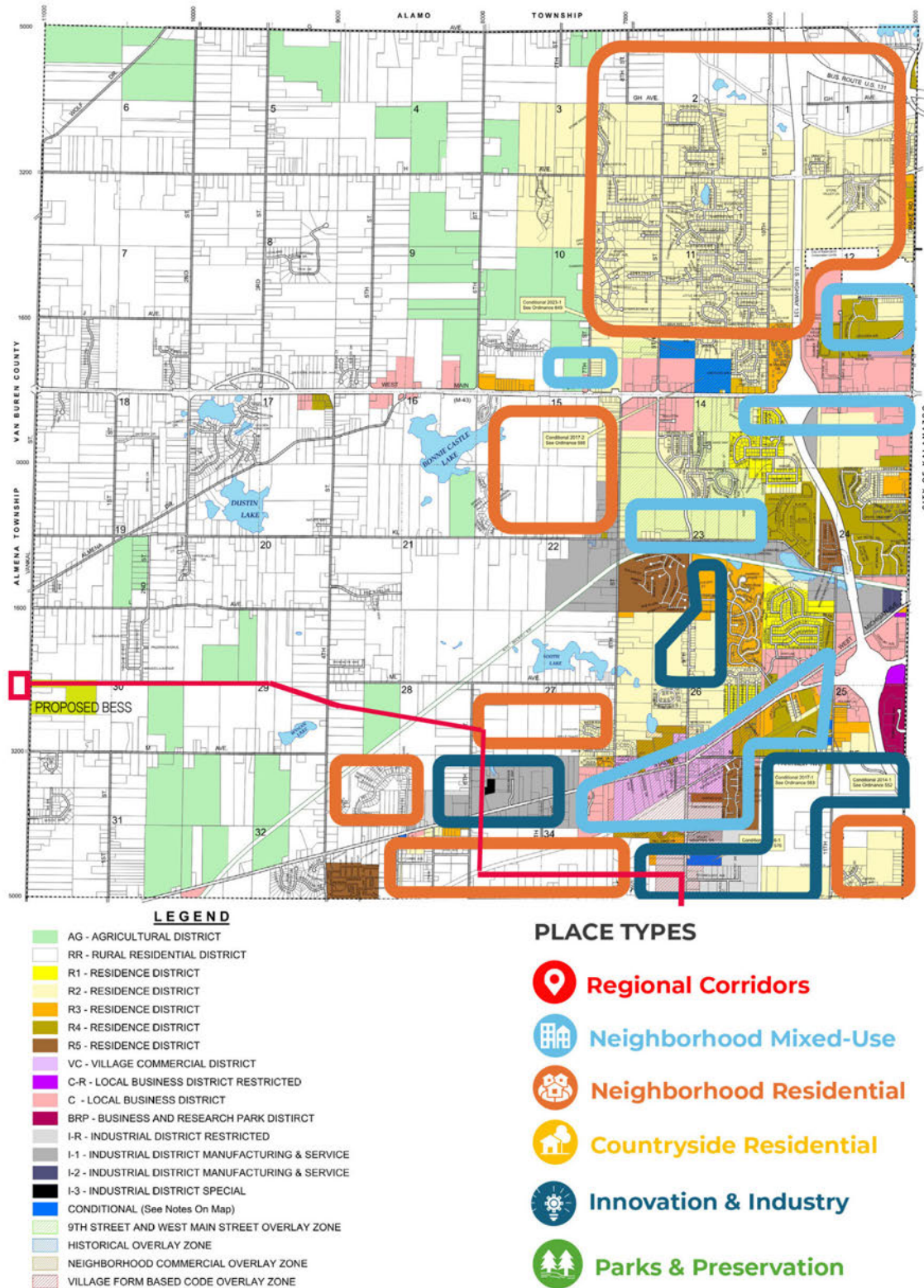


Exhibit B is a preliminary list of example parcels identified from public information and available listings. This list is not intended to select, design, or approve a site for the developer. Rather, it is provided to preserve the record that feasible, less-impactful alternatives appear to exist along the same general transmission corridor, including industrial-zoned locations located near existing industrial or commercial activity.

Site	Initial relevance to alternative-site review
7574 Stadium Drive Kalamazoo, MI	18.86 acres; Zoned I-1. Undeveloped. ~1,600 ft to same high-transmission-line tract and approx. 800 ft from an existing Consumers Energy substation.
8240 Stadium Drive Kalamazoo, MI	3.8 acres; Zoned I-1; Developed. Vacant 11.4 parcel next door reportedly has easement drive access to the developed property; Same high-transmission line tract runs on property edge.
6110 Technology Avenue Kalamazoo, MI	8.82 acres; Zoned I-R; Undeveloped. Adjacent to same high-transmission line tract.
Valley Industrial Drive Kalamazoo, MI	40 acres; Zoned I-R; Undeveloped. Same high-transmission line tract crosses property. Several other adjoining properties ranging from 16 acres to 124 acres are part of this newly expanded Industrial land-use area.

Good Evening Board and Community,

My name is [REDACTED] and I am here with my husband to speak about our objection and share our concerns regarding the proposed BESS battery storage on S. Van Kal Street, which is about 1.5 miles from our home of over 20 years.

I spoke here in response to Trustee Cole's flag analogy. I said that public comment is used to inform and influence decisionmaking. That may result in you feeling criticized. We are asking for the facts and increased modes of communication to ensure accountability and transparency. The 1st Amendment protects the right to criticize government officials even if the public is mistaken or misinformed when doing so. The flag analogy could be seen or interpreted as a tool of censorship rather than to welcome public concern or passion regarding the community.

I spoke at the last meeting and asked a few questions and shared some concerns. I emailed my comments to the Board and the Planning Commission, and I received no responses to my concerns to date.

During the meeting on June 4th, you mentioned the residents should contact their legislators. I have done this and will continue. I requested that House Bills 4027 and 4028 be voted on next in the Senate, as they have passed the House and have stalled. Those bills would repeal PA 233 to gain back local control for these types of projects in the future. That act currently allows the state to approve the projects even when the local says no.

My questions and concerns remain as follows:

1. During the last mtg. of the Almena Township Board, on June 17th, a motion was passed to fund educational outreach, such as postcards to residents regarding possible energy projects. Why isn't Oshthemo doing the same regarding BESS? You are already going door to door regarding construction projects and using what was just described as "effective text alerts."

Not providing informational alerts creates a lack of transparency, as was mentioned as a concern last meeting and has placed that financial burden on us, the residents. I request a motion be made to fund and appropriately inform residents asap regarding BESS information and updates.

2. What are the local leaders doing to ensure the residents' safety?
 - a. Who will protect my and my neighbors property and its value?
 - i. For example, who pays to ensure we have safe water, soil and air if it becomes contaminated?
 - ii. How will the Township pay the increase in our home insurance rates if they are raised or refused coverage?

- b. How are you protecting fens, aquifers, wells, farms, animals, and other important landmarks such as The Wolf Lake Fish Hatchery, and Prairie Ridge Elementary School on 9th street, just to name a few?
3. What, if anything, will the Township receive in exchange for the risks of a lithium battery project?
4. Has the Planning Committee or the Board begun a change in zoning to allow for BESS in an industrial area rather than only having it zoned for rural?
 - a. Does writing an ordinance give the impression that our Township is welcoming the battery plant? Is it better just to say “no” rather than put forth the ordinance?

From what I have read, there already exhibit safer alternatives to the lithium batteries, as technology moves quickly.

For example, newer technologies don't use volatile chemicals known to explode and burn.

The lithium BESS battery is too dangerous, outdated and risky to use anywhere, especially in a rural area where water sources could be contaminated.

Please, we need you to do everything in your power to stop this project.

From: [REDACTED]
To: [Jodi Stefforia](#); [Cheri Bell](#)
Subject: Re: PLANNING COMMISSION BRIEF: Land Use Incompatibility & Hydrogeological Vulnerabilities (Proposed Oshtemo BESS Siting)
Date: Thursday, July 9, 2026 1:48:24 PM
Attachments: [image001.png](#)

CAUTION: External Email

Dear Supervisor Bell, Chairperson Smith, and Planning Director Stefforia,

Thank you all for your prompt confirmation and for your continued dedication to safety! My hope is this very stressful issue for our community will soon be behind us. I cannot imagine how challenging this has been for all involved.

As a brief update for the official record, I want to inform you that a copy of the hydrogeological and infrastructure risk brief I sent has also been formally transmitted to the out-of-state property owner, [REDACTED] via Certified mail with confirmation of signature upon receipt.

Given the Van Buren Fire Department's warnings regarding rapid localized aquifer drawdown and private well infrastructure collapse, it was imperative to ensure that all primary stakeholders, including the underlying landholder, are fully documented as having received this localized risk data and these engineering warnings.

Thank you again for your time and leadership in protecting the water security and public health of our shared community!

Kind Regards,

[REDACTED]

From: Jodi Stefforia <jstefforia@oshtemo.org>
Sent: Thursday, July 9, 2026 12:20 PM
To: [REDACTED]
Cc: Cheri Bell <cbell@oshtemo.org>
Subject: RE: PLANNING COMMISSION BRIEF: Land Use Incompatibility & Hydrogeological Vulnerabilities (Proposed Oshtemo BESS Siting)

WARNING: EXTERNAL SOURCE

Thank you for the correspondence, [REDACTED]

We have been collecting written public comments and will share them collectively with the Planning Commission in the meeting packet when the energy systems draft text is an agenda item.

Kill them with kindness,

Jodi Stefforia
Planning Director
Oshtemo Charter Township
7275 West Main Street
Kalamazoo, MI 49009
Main: 269.375.4260
Direct: 269.216.5232
jstefforia@oshtemo.org



From: [REDACTED]
Sent: Wednesday, July 8, 2026 5:51 PM
To: Planning <planning@oshtemo.org>; Jodi Stefforia <jstefforia@oshtemo.org>
Subject: PLANNING COMMISSION BRIEF: Land Use Incompatibility & Hydrogeological Vulnerabilities (Proposed Oshtemo BESS Siting)

CAUTION: External Email

Subject: PLANNING COMMISSION BRIEF: Land Use Incompatibility & Hydrogeological Vulnerabilities (Proposed Oshtemo BESS Siting)

Dear Chairperson and Members of the Oshtemo Charter Township Planning Commission,

Thank you for your work ensuring the safety of our shared community. Please find attached a comprehensive, multi-section municipal legal and public health brief regarding the proposed 260-megawatt utility-scale Battery Energy Storage System

(BESS) slated for the intersection of West M Avenue and South Van Kal Street.

As a practicing pediatrician, global health specialist, and a resident of the down-gradient neighboring community in Almena Township, I am formally submitting this data into the official planning record. I request that the Planning Commission integrate these localized site vulnerabilities into your special land use, site plan, or master plan compatibility reviews before any municipal determinations are finalized.

As a medical professional with an undergraduate degree with High Honors from Michigan State University, medical school and Pediatric residency at the University of Michigan, and a certificate in Global Healthcare Delivery from Harvard Medical School, my review of the peer-reviewed data on utility-scale BESS thermal runaway events indicates that this specific parcel represents a severe, unmitigated threat to our shared regional land and water resources due to several irreconcilable site-specific conditions. As a pediatrician, I feel compelled to share these concerns with you. In short, they include:

- **Incompatible Subsurface Profile for Industrial Siting:** The subject site sits entirely on highly permeable Oshtemo sandy loam soil. From a zoning and land-use perspective, placing a massive chemical and electrical repository over a soil profile with zero natural filtering capacity—directly above an unconfined drinking water aquifer—is fundamentally incompatible with surrounding residential infrastructure.
- **100% Private Well Reliance & Public Health Risk:** The surrounding residential zones across both Oshtemo and Almena Townships have zero municipal water connectivity and rely entirely on private residential wells. Any localized groundwater contamination via fire plume deposition or unmitigated toxic runoff represents an immediate, widespread public health crisis for thousands of local families.
- **Critical Infrastructure Deficiencies (Water Access & Runoff Containment):** This rural site lacks the municipal water hydrants and stormwater drainage infrastructure necessary to handle a utility-scale industrial emergency. Managing a BESS thermal runaway event requires a continuous water deluge lasting 24 to 48 hours, creating hundreds of thousands of gallons of highly toxic, chemically altered runoff. Without strict, township-mandated engineering requirements—specifically a pre-constructed, fully sealed secondary containment basin and an immediate 4-hour hazmat vacuum extraction protocol—this toxic water will absorb directly into the ground, permanently poisoning the regional aquifer.

Threat to the Protected Hayden Creek Watershed: This specific parcel sits directly within the geographic surface drainage footprint of the Hayden Creek Watershed. Toxic fire runoff escaping this site will migrate straight into Hayden Creek, a highly sensitive, designated Michigan cold-water trout stream protected by EGLE under Part 301 (Inland Lakes and Streams) and Part 31 of PA 451 of 1994.

- **Aquifer Drawdown & Well Infrastructure Collapse:** As the Van Buren Fire Department recently educated our community, any emergency strategy that attempts to draw the massive volume of water required for BESS fire suppression from on-site emergency wells poses a catastrophic structural threat. Pumping hundreds of thousands of gallons over a short window will cause a severe, rapid localized drawdown of this unconfined aquifer. This sudden drop in hydraulic pressure risks permanently dropping the water table overnight, clogging residential well screens with sediment, and causing surrounding domestic wells to structurally fail. The developer must be contractually mandated to construct a completely independent, pre-filled, above-ground fire water storage tank.

The Planning Commission holds a non-delegable duty to ensure that special land uses do not endanger the health, safety, and general welfare of surrounding residents or permanently degrade critical natural resources.

Thank you so much for your time, your diligence, and your dedication to protecting the safety and natural infrastructure of our shared community! Your work is much appreciated by many!

Respectfully submitted,

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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DATE:

July 6, 2026

TO:

Supervisor Cheri Bell and the Board of Trustees, Charter Township of Oshtemo
7275 West Main Street
Kalamazoo, MI 49009

Cc: Jim Porter, Esq., Township Legal Counsel

Via Certified Mail / Return Receipt Requested and Physical Hand Delivery for Official Public Record

RE: MUNICIPAL LEGAL ROADMAP & STATUTORY BOUNDARIES FOR HIGH-RISK UTILITY ORDINANCES

Establishing Non-Negotiable Public Safety, Pediatric Health, and Groundwater Protections to Insulate the Township from External Liability

Dear Supervisor Bell and Oshtemo Township Trustees,

Please accept this formal correspondence into the official public record for the Charter Township of Oshtemo.

As a practicing physician, a resident of an adjacent township located immediately down-gradient from proposed utility-scale battery energy storage developments, and a specialist in community health, I am writing to you not in opposition to the Township, but in **direct support of this Board's constitutional authority to protect local communities.**

Our neighboring township has no municipal water system and depends 100% on private residential wells drawing from the exact unconfined groundwater aquifer that flows directly beneath the border of Almena and Oshtemo Townships. Because environmental hazards do not respect municipal border lines, a zoning failure in Oshtemo directly threatens the life support systems of thousands of homes outside your jurisdiction.

We recognize that your Board faces immense pressure from out-of-state industry representatives claiming that local zoning authority has been stripped away. This is legally incorrect. While Michigan's Public Act 233 (PA 233) pushes for renewable infrastructure, it does not mandate municipal negligence. The purpose of this letter is to provide this Board, and your legal counsel, with a clear statutory framework under established Michigan environmental law to craft **a sensible, legally defensible ordinance that prioritizes public health and water safety without fear of external legal retaliation.**

I. High Permeability and the Statutory Duty to Protect Shared Waters

Industrial developers frequently rely on general, nationwide baseline figures to assure local boards that these systems are safe. However, general data cannot override site-specific geological realities. The border areas of Almena and Oshtemo Townships—specifically centered around the proposed 260-megawatt development at West M Avenue and South Van Kal Street—sit on highly permeable Oshtemo sandy loam soils, which provide virtually zero filtration buffer before reaching the unconfined aquifer feeding the **Hayden Creek Watershed (a legally designated High Priority Protection Area).**

Under the Michigan Environmental Protection Act (MEPA), Part 17 and Part 31 of PA 451 of 1994, local units of government have an affirmative, non-delegable duty to prevent or minimize the impairment, pollution, or destruction of protected waters. If an industry expert tells this Board that water protection rules cannot be placed into your ordinance, they are asking you to ignore state environmental statutes. Your legal counsel can firmly advise the Board that **restricting high-risk utility assets from sitting atop highly permeable drinking aquifers is not "unreasonably restrictive" under PA 233—it is an explicit mandate to comply with preexisting state environmental protection laws.**

Before examining the specific infrastructure gaps of this proposal, this Board must recognize the precise statutory origin of its zoning authority. Under the Michigan Zoning Enabling Act (MZEa), Public Act 110 of 2006, the State grants townships foundational "police powers" specifically to regulate land use to protect the public health, safety, and general welfare of its residents. While Public Act 233 (PA 233) modifies local control over renewable energy sitings, it explicitly does not extinguish these core municipal police powers. The Township retains the absolute right and the constitutional obligation to ensure that any utility-scale industrial asset complies with baseline public safety protections. **PA 233 limits arbitrary restrictions; it does not strip this Board of its legal authority to prevent predictable structural hazards to human life and local infrastructure.**

II. Bridging the Infrastructure Gap: Quantifiable Firefighter Limits

When a utility-scale battery facility experiences thermal runaway, industry standard protocols demand a continuous water deluge lasting 24 to 48 hours. In a rural setting devoid of municipal fire hydrants and drainage networks, this creates an impossible operational crisis for local fire services. To bridge this gap and insulate the Township from immense operational liability, your zoning ordinance must address the physical logistics of toxic firefighting runoff:

- **Containment Feasibility & Risk Profiles:** Industry representatives may suggest a secondary containment basin and a slow-draw holding tank. However, without municipal drainage, a basin holding hundreds of thousands of gallons of water contaminated with hydrogen fluoride, lithium, and manganese becomes an instant, catastrophic hazardous waste site.
- **The 4-Hour Extraction Mandate:** If a containment liner tears or overflows on sandy loam soil, the aquifer is permanently poisoned. Therefore, based on the high percolation rates of local sandy loam, the Township has the **full legal authority and duty** to mandate that any utility facility utilizing liquid containment must submit a legally binding **Emergency Firewater Extraction Plan. This plan must contractually require the developer to have certified hazardous waste vacuum trucks on-site or arriving within 4 hours of any water deployment to empty the basins. If a developer claims this is impossible, it represents an operational admission of unmitigated risk to the local water supply.**

III. Atmospheric Plume Modeling and Airborne Pediatric Neurotoxicity Risks

While liquid containment addresses groundwater percolation, a BESS thermal runaway event creates an immediate, severe atmospheric crisis. During a battery fire, off-gassing releases thousands of pounds of highly toxic, dense chemical vapors—specifically Hydrogen Fluoride (HF), Carbon Monoxide (CO), and vaporized heavy metals. Because our surrounding area lacks a high-density municipal grid to facilitate fast regional evacuations, these airborne plumes present an immediate risk to life safety that the Township must regulate via spatial setbacks:

- **The Inhalation-to-Groundwater Pathway:** Air emissions from lithium-ion fires are heavily laden with fine, respirable particulates of lithium, cobalt, and manganese. Real-world incident data confirms these particulates settle quickly onto local topsoil. In our highly permeable Oshtemo sandy loam, rainfall will rapidly leach these settled heavy metals straight down into the unconfined aquifer, turning an air hazard into a permanent groundwater contamination event.
- **Acute Exposure Guideline Levels (AEGL) Mandate:** To insulate the Township from zoning arbitrariness, the ordinance must require the developer to fund an **independent, third-party Atmospheric Plume Dispersion Model using local historical wind data. The ordinance must state: "If the worst-case thermal runaway plume model shows chemical concentrations exceeding federal EPA AEGL-2 limits (the threshold where individuals experience irreversible health effects or impaired escape ability) at the property line, the site layout is disqualified."**
- **Airtight Chemical Separation Buffers:** Because a toxic plume cannot be contained by local emergency services, the spatial buffer must be absolute. The Township has the **legal authority and duty to mandate a minimum 1,500-foot atmospheric plume setback between any BESS container and the nearest residential property line or public right-of-way to allow for safety dilution.** For the parcel currently under consideration along South Van Kal Street, this necessary public health safety boundary will correctly protect established agricultural and residential properties from direct chemical exposure.

IV. The Critical Pediatric and Public Health Risk

As a pediatrician, I must emphasize that groundwater contamination and toxic air plumes pose an asymmetric, severe risk to our youngest population. According to the National Institutes of Health (NIH) and pediatric toxicology standards, infants and children are uniquely vulnerable to heavy metal and toxic gas exposure due to their smaller body mass, higher fluid intake per kilogram, and rapidly developing neurological and metabolic pathways.

If firefighting runoff percolates through our highly permeable sandy loam into the unconfined aquifer, children drinking from private wells face direct exposure to neurotoxic and hepatotoxic agents. Simultaneously, airborne exposure to hydrofluoric acid gas can cause immediate, irreversible respiratory tissue damage in children. Real-world emissions data published by the Texas A&M Engineering Extension Service (TEEX) and the U.S. EPA confirm that lithium-ion battery fires release high concentrations of respirable and water-soluble compounds of lithium, cobalt, nickel, and manganese.

Chronic or acute ingestion of these specific heavy metals in pediatric populations is clinically linked to irreversible neurodevelopmental delays, cognitive deficits, and organ distress. **By failing to mandate strict air dispersion safety thresholds or an immediate 4-hour liquid removal protocol, the Township is actively introducing a preventable vector for pediatric heavy metal poisoning into our shared air and drinking water.**

V. The Contamination Precedent and Peer-Reviewed Sourced Data

When a lithium-ion BESS experiences thermal runaway, the environmental fallout is devastating, a reality backed by extensive emergency response records and authoritative studies:

- **The New York Precedent & Litigation:** Following a utility-scale BESS thermal blowout in East Hampton, NY (2023), water suppression runoff created a localized groundwater crisis. This resulted in an ongoing lawsuit filed by the Suffolk County Water Authority against the battery operators,

citing a failure to contain runoff that threatened public drinking supply wells with organic electrolyte byproducts and heavy metals.

- **The California Precedent & EPA Intervention:** During the multi-day Gateway Energy Storage fire in San Diego County (2024), which involved over 15,000 lithium-ion batteries, the U.S. EPA formally intervened. Due to the severe threat of toxic liquid runoff, the EPA placed the operator under strict federal mandates requiring extensive, long-term environmental monitoring of the surrounding soil, groundwater, and air.
- **The NFPA Risk Assessment:** A landmark study by the Fire Protection Research Foundation (NFPA) established that the heavy metal emission factor for lithium-ion battery fuels is significantly higher than standard industrial materials, meaning that even a single uncontained fire creates a high-density toxic footprint that localized rural soil profiles cannot filter.

VI. Legal Grounds to Stand On: Notice of Torts and Zoning Arbitrariness

By submitting this document into the official record, the Township Board is now on formal notice of specific, quantifiable, and localized risks. If the Board chooses to approve this project despite this data, you establish the following legal positions for affected citizens:

- **Inverse Condemnation & Substantive Due Process Violations:** Granting an industrial zoning designation, variance, or special use permit for a high-risk utility facility over a protected aquifer—directly threatening the sole drinking water source of nearby homes—constitutes a regulatory taking. It destroys adjacent property values and safety without due recourse, holding viable claims for inverse condemnation as the municipal action results in the practical destruction of residential property value.
- **Abrogation of Public Trust:** Under Michigan law, local units of government hold natural resources in trust for the public. Approving a known toxic hazard in a designated High Priority Protection Area like Hayden Creek is a clear breach of that public trust under Part 17 of PA 451 of 1994.
- **Establishment of Municipal Negligence:** This letter removes the defense of "unforeseeable accident." If a water contamination or airborne toxic event occurs, this document will serve as Exhibit A in a class-action lawsuit against the Charter Township of Oshtemo for gross negligence, as the Board and its legal counsel were **explicitly warned of the soil permeability, infrastructure absence, watershed connection, pediatric risks, and baseline industry failure rates prior to approval.**
- **Corporate Shielding via Single-Purpose LLCs:** It is standard industry practice for energy developers to transfer project assets into localized, single-purpose Limited Liability Companies (LLCs). This corporate structure legally insulates the well-capitalized parent company from downstream liability. In the event of a catastrophic thermal runaway fire, chemical plume exposure, or widespread aquifer poisoning, the parent corporation can simply declare bankruptcy on the local LLC and walk away from the disaster. Without a pre-funded, irrevocable escrow bond held directly by Oshtemo Township, the financial burden of multi-million dollar environmental remediation, private well replacements, and physical site decommissioning will be permanently shifted onto the Township and its taxpayers. Approving this facility without capturing this financial risk establishes a clear case of municipal negligence.

VII. Statutory Conditions for Conditional Land Use Alignment

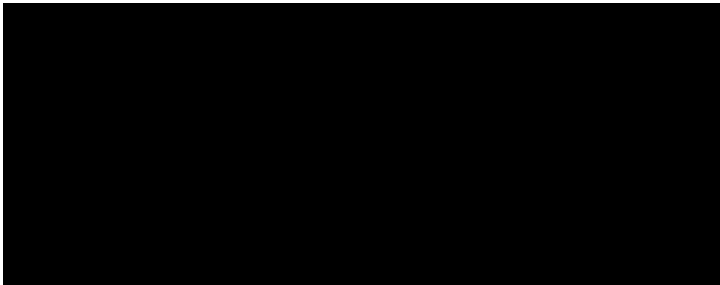
To protect this community and insulate the Township from developer lawsuits, on behalf of the concerned citizens of Almena and Oshtemo townships, we demand that the pending BESS ordinance explicitly integrate the following strict zoning boundaries under the authority of Michigan's Public Act 233:

- **Environmental Exclusion Zones:** Explicitly prohibit the construction of utility-scale energy storage facilities on soils classified with high permeability (sandy loams/sands) that sit directly above unconfined drinking water aquifers or feed protected sub-watersheds.
- **Mandate Immediate Hazmat Liquid Removal:** Require that any facility utilizing a liquid containment "bathtub" or holding tank submit a legally binding Emergency Firewater Extraction Plan. This plan must contractually mandate the arrival of certified hazardous waste vacuum trucks to empty the containment basins within 4 hours of any water deployment.
- **Strict 1,500-Foot Atmospheric Setbacks:** Mandate a minimum setback of at least 1,500 feet from any BESS container to the nearest residential zoning boundary, public road, or neighboring township border where the adjacent community relies exclusively on private wells.
- **Independent Plume Modeling:** Require the applicant to fund an independent, third-party Plume Dispersion Model. If the calculated worst-case chemical concentrations exceed federal EPA AEGL-2 limits at the property line, the permit shall be automatically denied.
- **Pre-Funded Escrow Bonds:** Require developers to place a minimum of \$10 Million into an irrevocable escrow account held by the Township prior to breaking ground to cover multi-day water hauling operations, private well replacements, atmospheric remediation, total hazardous site cleanup if the operating company defaults or declares bankruptcy, and complete physical decommissioning at end-of-life.

This Board has the right, the duty, and the legal ground to say: "We support infrastructure, but we will not sacrifice our groundwater, our air, or our children's safety to get it."

We urge you to stand firm, rely on the environmental statutes of the State of Michigan, and write an ordinance that protects the families who live here.

Respectfully submitted,



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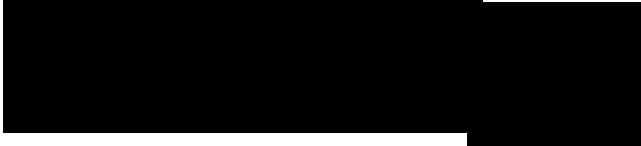
CC:

1. Joe LeDuc, Supervisor, Almena Township
2. Almena Township Planning Commission
3. James Rutherford, MPA, Health Officer, Kalamazoo County Health & Community Services
4. Lucas Pols, REHS, Environmental Health Division Manager, Kalamazoo County Health & Community Services
5. Danielle Persky, Health Officer, Van Buren/Cass District Health Department
6. George Friday, REHS, Environmental Health Director, Van Buren/Cass District Health Department
7. Kalamazoo County Board of Commissioners
8. Van Buren County Board of Commissioners
9. Oshtemo Township Planning Commission
10. Drinking Water & Environmental Health Division, Michigan Department of Environment, Great Lakes, and Energy (EGLE)

11. Kalamazoo District Office, Michigan Department of Environment, Great Lakes, and Energy (EGLE)
12. Division of Environmental Health (Toxicology Section), Michigan Department of Health and Human Services (MDHHS)

Certification of Submission

I certify that on July 6, 2026, a copy of this correspondence was submitted to the Charter Township of Oshtemo via Certified Mail/Return Receipt Requested and physical hand delivery for inclusion in the official public record.



From: [REDACTED]
To: [Cheri Bell](#); [Anna Horner](#); [Clare Buszka](#); [Jodi Stefforia](#); [David Kobb](#); [Sierra Lucas](#); [Dusty Farmer](#); [Kristin Cole](#); [Michael Chapman](#); [Zak Ford](#); [Neil Sikora](#)
Cc: almenasupervisor@comcast.net; [James Porter](#)
Subject: Constructive Solutions for BESS Zoning & Cross-Border Water Protection
Date: Wednesday, July 15, 2026 2:26:56 PM
Attachments: [Osthemo Township Water and Air Public Safety Support.pdf](#)

CAUTION: External Email

Subject: Constructive Solutions for BESS Zoning & Cross-Border Water Protection

Dear Supervisor Bell, Director Stefforia, and Honorable Board and Planning Commission Members,

Thank you for your time, attentiveness, and the welcoming environment you provided during last night's Osthemo Township Board meeting. I know your team has been operating under immense pressure and a stressful public climate. I want to reiterate how much **your neighbors in Alma sincerely appreciate the rigorous, protective work you are putting into drafting a science-based and legally sound ordinance** under your current moratorium.

As a pediatrician specializing in community health, my goals align with yours: ensuring public safety, safeguarding vital natural resources, and establishing legally defensible zoning. To support your legal and planning departments in that endeavor, I am writing to highlight two critical takeaways from last night's Osthemo Township meeting that offer a practical path forward.

1. A Viable Alternative: Utilizing the Industrial Zone with Municipal Water

Last night's presence of a representative from Clark who has actively acquired property within Osthemo's designated industrial zone presents an ideal, common-sense solution. Rather than placing a utility-scale BESS over the highly permeable sandy loam soils and residential aquifers along the South Van Kal border that significantly threaten our water and natural resources, **directing BESS infrastructure to the industrial zone achieves multiple health and safety milestones:**

- **Infrastructure Synergy:** Industrial zones feature established access to municipal water and wastewater services. In the event of a thermal runaway incident, emergency responders have immediate access to high-volume water infrastructure required for rapid cooling, preventing the localized hydrological draws that threaten private well aquaspheres. Additionally, that suppression water could flow safely into municipal drains rather than needing to be contained in a massive temporary basin and vacuumed out by trucks within a strict 4-hour window then driven to municipal drains to prevent

toxic runoff from penetrating our aquifer.

- **Plume and Watershed Protection:** Any toxic plume resulting from a thermal runaway incident would be located far away from communities relying on well water, and crucially, far away from protected surface waters. The South Van Kal site sits directly within the highly vulnerable Hayden Creek Watershed area, whereas the industrial zone removes this environmental threat.
- **Local Accountability:** Working with invested, local entities like Clark provides the Township with transparent, accessible partners who are rooted in our community's long-term economic and environmental health.

2. The Out-of-State Landowner Liability Gap

This local accountability stands in stark contrast to the current situation on the South Van Kal site. As I mentioned last night, our attempts to serve a comprehensive legal notice via certified mail to the out-of-state landowner in Mississippi, Mr. Ronnie Richardson—who holds the property under a domestic limited liability company named "Sable Farms, LLC"—were unsuccessful. The United States Postal Service stated in an email that they were blocked from gaining physical access to deliver the notice to Mr. Ronnie Richardson.

An **uncontactable, non-responsive out-of-state landlord operating behind a corporate LLC attached to a utility-scale industrial project is a significant structural and legal liability for Oshtemo Township.** If an emergency occurs, your local emergency services, township attorneys, and residents require immediate, reliable points of contact. A developer layout that shields the primary landowner from certified mail is deeply problematic for local enforcement.

Moving Forward in Partnership

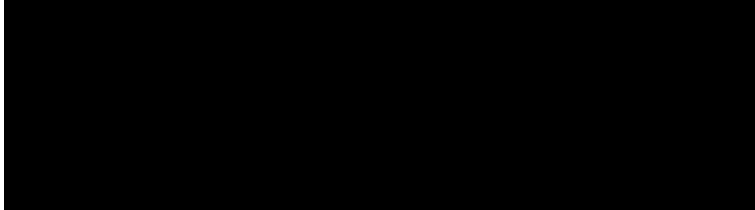
As you finalize your **Workable Incompatible Ordinance** under Public Act 233 frameworks, **we strongly encourage the Oshtemo Charter Township Planning Commission to craft language that explicitly restricts utility-scale lithium-ion storage systems from highly permeable residential border zones that rely on wells and protected watershed areas, while steering these projects toward fully serviced industrial zones.**

While developers like NewEdge may argue that shifting to an industrial zone or requiring municipal water infrastructure is cost-prohibitive, servicing NewEdge's profit margin is not the responsibility of this Board. As you know and do, your primary, statutory charge is to protect the public health, safety, and general welfare of this community. **If adhering to rigorous, science-based environmental safety standards means NewEdge ultimately decides**

that Oshtemo is not the right fit for their project, that is an acceptable and legally defensible outcome.

This approach protects our shared environment, keeps our local water safe, and ensures the Township partners only with accountable, accessible entities. **Thank you again for your dedicated service,** your warmth last night, and your continued review of the attached 6-page legal framework I submitted.

Kind Regards,



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DATE:

July 6, 2026

TO:

Supervisor Cheri Bell and the Board of Trustees, Charter Township of Oshtemo
7275 West Main Street
Kalamazoo, MI 49009

Cc: Jim Porter, Esq., Township Legal Counsel

Via Certified Mail / Return Receipt Requested and Physical Hand Delivery for Official Public Record

RE: MUNICIPAL LEGAL ROADMAP & STATUTORY BOUNDARIES FOR HIGH-RISK UTILITY ORDINANCES

Establishing Non-Negotiable Public Safety, Pediatric Health, and Groundwater Protections to Insulate the Township from External Liability

Dear Supervisor Bell and Oshtemo Township Trustees,

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Under the Michigan Environmental Protection Act (MEPA), Part 17 and Part 31 of PA 451 of 1994, local units of government have an affirmative, non-delegable duty to prevent or minimize the impairment, pollution, or destruction of protected waters. If an industry expert tells this Board that water protection rules cannot be placed into your ordinance, they are asking you to ignore state environmental statutes. Your legal counsel can firmly advise the Board that **restricting high-risk utility assets from sitting atop highly permeable drinking aquifers is not "unreasonably restrictive" under PA 233—it is an explicit mandate to comply with preexisting state environmental protection laws.**

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II. Bridging the Infrastructure Gap: Quantifiable Firefighter Limits

When a utility-scale battery facility experiences thermal runaway, industry standard protocols demand a continuous water deluge lasting 24 to 48 hours. In a rural setting devoid of municipal fire hydrants and drainage networks, this creates an impossible operational crisis for local fire services. To bridge this gap and insulate the Township from immense operational liability, your zoning ordinance must address the physical logistics of toxic firefighting runoff:

- **Containment Feasibility & Risk Profiles:** Industry representatives may suggest a secondary containment basin and a slow-draw holding tank. However, without municipal drainage, a basin holding hundreds of thousands of gallons of water contaminated with hydrogen fluoride, lithium, and manganese becomes an instant, catastrophic hazardous waste site.
- **The 4-Hour Extraction Mandate:** If a containment liner tears or overflows on sandy loam soil, the aquifer is permanently poisoned. Therefore, based on the high percolation rates of local sandy loam, the Township has the **full legal authority and duty** to mandate that any utility facility utilizing liquid containment must submit a legally binding **Emergency Firewater Extraction Plan. This plan must contractually require the developer to have certified hazardous waste vacuum trucks on-site or arriving within 4 hours of any water deployment to empty the basins. If a developer claims this is impossible, it represents an operational admission of unmitigated risk to the local water supply.**

III. Atmospheric Plume Modeling and Airborne Pediatric Neurotoxicity Risks

While liquid containment addresses groundwater percolation, a BESS thermal runaway event creates an immediate, severe atmospheric crisis. During a battery fire, off-gassing releases thousands of pounds of highly toxic, dense chemical vapors—specifically Hydrogen Fluoride (HF), Carbon Monoxide (CO), and vaporized heavy metals. Because our surrounding area lacks a high-density municipal grid to facilitate fast regional evacuations, these airborne plumes present an immediate risk to life safety that the Township must regulate via spatial setbacks:

- **The Inhalation-to-Groundwater Pathway:** Air emissions from lithium-ion fires are heavily laden with fine, respirable particulates of lithium, cobalt, and manganese. Real-world incident data confirms these particulates settle quickly onto local topsoil. In our highly permeable Oshtemo sandy loam, rainfall will rapidly leach these settled heavy metals straight down into the unconfined aquifer, turning an air hazard into a permanent groundwater contamination event.
- **Acute Exposure Guideline Levels (AEGL) Mandate:** To insulate the Township from zoning arbitrariness, the ordinance must require the developer to fund an **independent, third-party Atmospheric Plume Dispersion Model using local historical wind data. The ordinance must state: "If the worst-case thermal runaway plume model shows chemical concentrations exceeding federal EPA AEGL-2 limits (the threshold where individuals experience irreversible health effects or impaired escape ability) at the property line, the site layout is disqualified."**
- **Airtight Chemical Separation Buffers:** Because a toxic plume cannot be contained by local emergency services, the spatial buffer must be absolute. The Township has the **legal authority and duty to mandate a minimum 1,500-foot atmospheric plume setback between any BESS container and the nearest residential property line or public right-of-way to allow for safety dilution.** For the parcel currently under consideration along South Van Kal Street, this necessary public health safety boundary will correctly protect established agricultural and residential properties from direct chemical exposure.

IV. The Critical Pediatric and Public Health Risk

As a pediatrician, I must emphasize that groundwater contamination and toxic air plumes pose an asymmetric, severe risk to our youngest population. According to the National Institutes of Health (NIH) and pediatric toxicology standards, infants and children are uniquely vulnerable to heavy metal and toxic gas exposure due to their smaller body mass, higher fluid intake per kilogram, and rapidly developing neurological and metabolic pathways.

If firefighting runoff percolates through our highly permeable sandy loam into the unconfined aquifer, children drinking from private wells face direct exposure to neurotoxic and hepatotoxic agents. Simultaneously, airborne exposure to hydrofluoric acid gas can cause immediate, irreversible respiratory tissue damage in children. Real-world emissions data published by the Texas A&M Engineering Extension Service (TEEX) and the U.S. EPA confirm that lithium-ion battery fires release high concentrations of respirable and water-soluble compounds of lithium, cobalt, nickel, and manganese.

Chronic or acute ingestion of these specific heavy metals in pediatric populations is clinically linked to irreversible neurodevelopmental delays, cognitive deficits, and organ distress. **By failing to mandate strict air dispersion safety thresholds or an immediate 4-hour liquid removal protocol, the Township is actively introducing a preventable vector for pediatric heavy metal poisoning into our shared air and drinking water.**

V. The Contamination Precedent and Peer-Reviewed Sourced Data

When a lithium-ion BESS experiences thermal runaway, the environmental fallout is devastating, a reality backed by extensive emergency response records and authoritative studies:

- **The New York Precedent & Litigation:** Following a utility-scale BESS thermal blowout in East Hampton, NY (2023), water suppression runoff created a localized groundwater crisis. This resulted in an ongoing lawsuit filed by the Suffolk County Water Authority against the battery operators,

citing a failure to contain runoff that threatened public drinking supply wells with organic electrolyte byproducts and heavy metals.

- **The California Precedent & EPA Intervention:** During the multi-day Gateway Energy Storage fire in San Diego County (2024), which involved over 15,000 lithium-ion batteries, the U.S. EPA formally intervened. Due to the severe threat of toxic liquid runoff, the EPA placed the operator under strict federal mandates requiring extensive, long-term environmental monitoring of the surrounding soil, groundwater, and air.
- **The NFPA Risk Assessment:** A landmark study by the Fire Protection Research Foundation (NFPA) established that the heavy metal emission factor for lithium-ion battery fuels is significantly higher than standard industrial materials, meaning that even a single uncontained fire creates a high-density toxic footprint that localized rural soil profiles cannot filter.

VI. Legal Grounds to Stand On: Notice of Torts and Zoning Arbitrariness

By submitting this document into the official record, the Township Board is now on formal notice of specific, quantifiable, and localized risks. If the Board chooses to approve this project despite this data, you establish the following legal positions for affected citizens:

- **Inverse Condemnation & Substantive Due Process Violations:** Granting an industrial zoning designation, variance, or special use permit for a high-risk utility facility over a protected aquifer—directly threatening the sole drinking water source of nearby homes—constitutes a regulatory taking. It destroys adjacent property values and safety without due recourse, holding viable claims for inverse condemnation as the municipal action results in the practical destruction of residential property value.
- **Abrogation of Public Trust:** Under Michigan law, local units of government hold natural resources in trust for the public. Approving a known toxic hazard in a designated High Priority Protection Area like Hayden Creek is a clear breach of that public trust under Part 17 of PA 451 of 1994.
- **Establishment of Municipal Negligence:** This letter removes the defense of "unforeseeable accident." If a water contamination or airborne toxic event occurs, this document will serve as Exhibit A in a class-action lawsuit against the Charter Township of Oshtemo for gross negligence, as the Board and its legal counsel were **explicitly warned of the soil permeability, infrastructure absence, watershed connection, pediatric risks, and baseline industry failure rates prior to approval.**
- **Corporate Shielding via Single-Purpose LLCs:** It is standard industry practice for energy developers to transfer project assets into localized, single-purpose Limited Liability Companies (LLCs). This corporate structure legally insulates the well-capitalized parent company from downstream liability. In the event of a catastrophic thermal runaway fire, chemical plume exposure, or widespread aquifer poisoning, the parent corporation can simply declare bankruptcy on the local LLC and walk away from the disaster. Without a pre-funded, irrevocable escrow bond held directly by Oshtemo Township, the financial burden of multi-million dollar environmental remediation, private well replacements, and physical site decommissioning will be permanently shifted onto the Township and its taxpayers. Approving this facility without capturing this financial risk establishes a clear case of municipal negligence.

VII. Statutory Conditions for Conditional Land Use Alignment

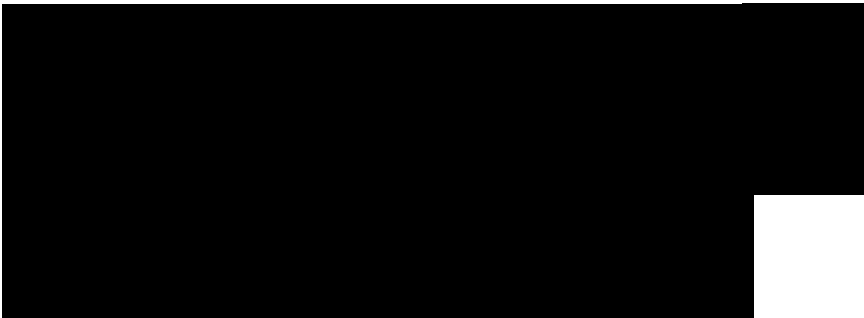
To protect this community and insulate the Township from developer lawsuits, on behalf of the concerned citizens of Almena and Oshtemo townships, we demand that the pending BESS ordinance explicitly integrate the following strict zoning boundaries under the authority of Michigan's Public Act 233:

- **Environmental Exclusion Zones:** Explicitly prohibit the construction of utility-scale energy storage facilities on soils classified with high permeability (sandy loams/sands) that sit directly above unconfined drinking water aquifers or feed protected sub-watersheds.
- **Mandate Immediate Hazmat Liquid Removal:** Require that any facility utilizing a liquid containment "bathtub" or holding tank submit a legally binding Emergency Firewater Extraction Plan. This plan must contractually mandate the arrival of certified hazardous waste vacuum trucks to empty the containment basins within 4 hours of any water deployment.
- **Strict 1,500-Foot Atmospheric Setbacks:** Mandate a minimum setback of at least 1,500 feet from any BESS container to the nearest residential zoning boundary, public road, or neighboring township border where the adjacent community relies exclusively on private wells.
- **Independent Plume Modeling:** Require the applicant to fund an independent, third-party Plume Dispersion Model. If the calculated worst-case chemical concentrations exceed federal EPA AEGL-2 limits at the property line, the permit shall be automatically denied.
- **Pre-Funded Escrow Bonds:** Require developers to place a minimum of \$10 Million into an irrevocable escrow account held by the Township prior to breaking ground to cover multi-day water hauling operations, private well replacements, atmospheric remediation, total hazardous site cleanup if the operating company defaults or declares bankruptcy, and complete physical decommissioning at end-of-life.

This Board has the right, the duty, and the legal ground to say: "We support infrastructure, but we will not sacrifice our groundwater, our air, or our children's safety to get it."

We urge you to stand firm, rely on the environmental statutes of the State of Michigan, and write an ordinance that protects the families who live here.

Respectfully submitted,



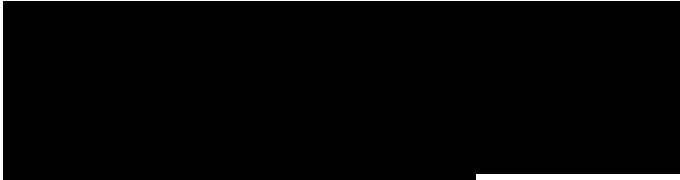
CC:

1. Joe LeDuc, Supervisor, Almena Township
2. Almena Township Planning Commission
3. James Rutherford, MPA, Health Officer, Kalamazoo County Health & Community Services
4. Lucas Pols, REHS, Environmental Health Division Manager, Kalamazoo County Health & Community Services
5. Danielle Persky, Health Officer, Van Buren/Cass District Health Department
6. George Friday, REHS, Environmental Health Director, Van Buren/Cass District Health Department
7. Kalamazoo County Board of Commissioners
8. Van Buren County Board of Commissioners
9. Oshtemo Township Planning Commission
10. Drinking Water & Environmental Health Division, Michigan Department of Environment, Great Lakes, and Energy (EGLE)

11. Kalamazoo District Office, Michigan Department of Environment, Great Lakes, and Energy (EGLE)
12. Division of Environmental Health (Toxicology Section), Michigan Department of Health and Human Services (MDHHS)

Certification of Submission

I certify that on July 6, 2026, a copy of this correspondence was submitted to the Charter Township of Oshtemo via Certified Mail/Return Receipt Requested and physical hand delivery for inclusion in the official public record.



Addendum A: Technical Ordinance Cheat Sheet for Utility-Scale BESS Siting

Siting Criteria and Public Safety Amendments for the Charter Township of Oshtemo Zoning Ordinance



1. Exclusion Zones for High-Priority Watersheds and Natural Watercourses

- **Mandatory High-Priority Watershed Prohibitions:** Siting of any utility-scale BESS facility (exceeding 10 MW) is strictly prohibited within any sub-watershed officially designated as a High Priority Protection Area, specifically including the **Hayden Creek Watershed**.
- **Cold-Water Stream Thermal and Chemical Buffer:** To protect ecologically sensitive cold-water trout streams, a mandatory zoning setback of no less than **1 mile** must be maintained between the perimeter of an industrial utility asset and any surface tributaries feeding into Hayden Creek.
- **Surface-to-Groundwater Linkage Ban:** Siting is prohibited on any parcel where surface water runoff directly drains into regional wetlands, creeks, or critical surface waters that serve as groundwater recharge zones for the broader regional water table.



2. Prevention of Migration Plumes (The "West KL Avenue Landfill" Precedent Standard)

- **Mandatory Hydrogeological Plume Modeling:** Prior to site approval, the developer must fund an independent, third-party hydrogeological migration study. The study must map the 20-year projected travel plume of any liquid coolant leak or toxic firewater deluge on the site's specific soil profile.
- **Automatic Siting Denial Criteria:** Siting must be automatically denied if modeling shows a potential contamination plume vector moving toward any private residential well fields or any area identified by the City of Kalamazoo for future municipal groundwater exploration.
- **Restricted Groundwater Safety Buffer:** Mirroring the groundwater restricted zones enforced by the county for the West KL Avenue Landfill, a minimum safety buffer of 2,500 feet must be established between any high-hazard utility asset and the nearest active private drinking well or down-gradient municipal border.



3. Infrastructure Siting Requirements (Overlay Zoning)

- **Municipal Water Access Mandate:** Utility-scale BESS facilities exceeding 10 MW/40 MWh must be restricted to parcels with direct access to a looped municipal water main capable of sustaining a minimum continuous fire-suppression flow of 2,500 GPM (gallons per minute) for 48 consecutive hours [PA233-BESS].
- **Prohibition Over Unconfined Aquifers:** Industrial-scale battery energy storage systems are prohibited from siting on high-permeability soils (such as Oshtemosandy loam) that lack a continuous, naturally occurring geological aquitard layer protecting shared regional drinking water tables.
- **Logistical Access Standard:** Parcels must possess Class-A all-weather highway access (e.g., M-43 / I-94 industrial corridors) to accommodate continuous heavy emergency vehicle staging and hazardous waste transport.

4. Catastrophic Firewater Runoff and Containment Specifications

- **Impermeable Secondary Containment:** The developer must install an engineered secondary containment basin lined with a puncture-resistant, high-density polyethylene (HDPE) liner (minimum 60-mil thickness) completely unpenetrated by drainage pipes.
- **Volumetric Deluge Capacity:** The containment basin must be engineered to hold 110% of the total potential fluid volume, calculating the maximum volume of all onboard liquid cooling systems combined with 48 hours of continuous maximum-flow firefighter deluge water.
- **The 4-Hour Rapid Extraction Mandate:** The ordinance text must require an approved Emergency Firewater Extraction Plan. The developer must maintain a legally binding, active contract with a licensed hazardous waste hauling service guaranteeing that certified vacuum trucks will arrive on-site within **4 hours** of any water deployment to continuously empty containment basins and prevent overflow.

5. Financial Indemnification and Sovereign Liability Insulation

- **Environmental Liability Insurance:** The operator must maintain a continuous Environmental Impairment Liability (EIL) insurance policy of no less than **\$50,000,000**, explicitly naming the Charter Township of Oshtemo as an additional insured party.
- **Irrevocable Groundwater Remediation Trust:** Prior to construction, the developer must establish a fully pre-funded, Irrevocable Standby Letter of Credit or a dedicated Groundwater Remediation Trust in the Township's name for no less than \$25,000,000. These funds must be completely insulated from any future corporate

bankruptcy or LLC dissolution, remaining immediately accessible to the Township to fund emergency water line installations or private well remediation if the aquifer is compromised.

- **Long-Term Decommissioning Bond:** A cash-backed or surety bond must be posted prior to construction, covering 100% of the cost of facility removal, battery recycling, and deep-soil chemical testing upon decommissioning, completely independent of salvage value assumptions.

DATE: July 6, 2026

TO: Supervisor Cheri Bell, the Board of Trustees, and Members of the Planning Commission,
Charter Township of Oshtemo
7275 West Main Street
Kalamazoo, MI 49009

Cc: Jim Porter, Esq., Township Legal Counsel

Via Email, Certified Mail / Return Receipt Requested, and Physical Hand Delivery for Official Public Record

RE: MUNICIPAL LEGAL ROADMAP, FINANCIAL LIABILITY, & REGIONAL WATER SECURITY FOR HIGH-RISK UTILITY ORDINANCES (PART II)
Establishing Non-Negotiable Public Safety, Property Value, and Groundwater Protections to Insulate the Township from External Liability

Dear Supervisor Bell, Honorable Trustees, Director Stefforia, and Planning Commission Members,

Thank you for your ongoing correspondence and your dedication to carefully evaluating the critical public health, environmental, and safety aspects of this upcoming zoning ordinance.

As an update to the official public record, I previously noted that [REDACTED], the out-of-state landowner of the proposed South Van Kal Street site, had been unresponsive and was not accepting certified mail. Fortunately, [REDACTED] has now officially signed for and received my certified letter outlining the severe environmental, geological, and community health risks this proposed utility project brings to our area. By signing for this documentation, the landowner can no longer claim ignorance of the localized site vulnerabilities. This **establishes clear, "actual notice" of risk, ensuring that the developer and landowner cannot easily deflect corporate liability onto the Township or claim they were unaware of the unconfined aquifer beneath their feet or that the site is within the boundary of a high-priority protected watershed.**

Secondly, my previous correspondence lacked a formalized, **municipal cost-benefit analysis regarding site selection.** To assist the Board and Planning Commission in protecting Township resources, I have compiled a fact-based economic and infrastructural assessment below. While I am a physician and community health specialist rather than a municipal budget analyst, these figures reflect real-world operational logistics, regional hydrogeology, and the established historical precedents of groundwater management in Kalamazoo County.

Furthermore, since my last letter, our community group met with **hydrogeology research faculty at Western Michigan University.** Their expert analysis changes the scope of this project for Oshtemo. The professor **confirmed that the unconfined glaciofluvial aquifer underlying the South Van Kal Street and West M Avenue site is a highly integrated, vital regional asset.** Crucially, this aquifer is not just a water source for current Alma and Oshtemo residents; it is a potential target

for future municipal water supply expansion. Per the WMU professor, the City of Kalamazoo is actively exploring this groundwater system to secure new well fields and meet growing regional water demands.

Introducing a **260-megawatt industrial battery energy storage system (BESS) directly over this highly permeable sandy loam introduces a catastrophic regional hazard that far outweighs any localized tax benefit.** Below, I outline how this regional water risk translates into immediate municipal liability, followed by a comparative financial and operational breakdown of siting this asset in an established Industrial Corridor versus the rural Van Kal location.

I. Regional Hydrogeology & The Extent of Aquifer Vulnerability

The environmental and financial risks associated with the proposed South Van Kal Street development extend far beyond the borders of Oshtemo and Almena Townships. The unconfined glaciofluvial aquifer underlying this specific site is an integrated regional resource of importance.

Introducing a 260-megawatt industrial battery energy storage system (BESS) directly over this highly permeable sandy loam introduces a regional hazard:

- **Regional Contamination Vector:** A single containment failure or unmitigated chemical firewater deployment will not remain localized. It will migrate rapidly through the unconfined aquifer, directly threatening the long-term viability of Kalamazoo's future public water supply exploration in addition to neighboring Van Buren County residents.
- **Sovereign Legal and Financial Liability:** By permitting a high-hazard utility asset over a shared regional water resource, Oshtemo Township exposes its taxpayers to massive, multi-jurisdictional lawsuits and state regulatory penalties if a contamination event compromises a neighboring city's water infrastructure and neighboring county's private well reliance.
- **Statutory Authority to Act: Under the Michigan Environmental Protection Act (MEPA), Part 17 of PA 451 of 1994,** this Board and the Planning Commission have an **explicit statutory mandate to prevent or minimize the impairment, pollution, or destruction of protected waters. Preventing industrial development over a critical regional drinking water asset is a legally sound, non-delegable duty that fully justifies restricting this project from the rural Van Kal site.**

II. The Illusion of Revenue: Municipal Cost-Benefit Analysis

While out-of-state industrial developers emphasize short-term personal property tax gains, a strict municipal asset analysis reveals that **siting this project at the South Van Kal Street and West M Avenue location creates an immediate net-negative financial position for the Township.**

1. Long-Term Stagnation of the Residential Tax Base

The proposed rural site relies heavily on a "rural residential premium"—homeowners purchase

property in western Oshtemo for quiet use, organic farming, and agricultural vistas. Empirical property valuation data shows that **inserting a massive, industrial utility footprint into a rural/agricultural zone causes an immediate drop in localized buyer demand. This leads to an estimated 1.5% to 5% depreciation or long-term price stagnation for properties within a one-mile radius. Because these homes rely 100% on private well water, any perceived threat to well-water safety introduces a real estate stigma that directly erodes Oshtemo's residential property tax base.**

2. Unfunded Capital and Infrastructure Mandates

A 24-to-48-hour thermal runaway event at a rural site devoid of municipal water infrastructure imposes a catastrophic operational cost on local fire services. To adequately protect a rural site, the Township would be forced to fund or co-sign for heavy industrial firefighting equipment, specialized chemical supplies, and mobile high-capacity water tankers. This capital outlay completely swallows the projected short-term tax revenue generated by the developer.

3. Catastrophic Failure Liability and the Historical Precedent

Oshtemo Township already knows the staggering cost of groundwater failure. **The legacy of the West KL Avenue Landfill Superfund site—where an underground toxic plume crossed municipal lines and destroyed residential drinking water—stands as a stark financial warning.**

A similar contamination event at the Van Kal site would trigger:

- **Massive Infrastructure Costs:** Forcing a municipal water main expansion into a rural area to save impacted homes would cost millions in capital main-laying and thousands in individual hookup fees.
- **Cross-Border Tort Litigation:** Because Alma Township and Van Buren County residents absorb 100% of the down-gradient well-water risk while Oshtemo captures the developer's taxes, a **contamination event guarantees massive cross-border municipal negligence lawsuits against Oshtemo Township.**

III. Defensible Zoning: Industrial Corridors vs. Agricultural Spot Zoning

Enforcing smart growth by **directing utility infrastructure to an established Industrial Zone Corridor (such as the M-43 / I-94 area) is not "unreasonably restrictive" under Public Act 233—it is the definition of sound municipal planning.**

Siting the BESS facility within an established industrial corridor eliminates the Township's liability:

- **Existing Infrastructure:** Industrial zones feature high-flow municipal hydrant loops capable of sustaining continuous fire suppression without exhausting regional mutual aid.
- **Runoff Isolation:** Industrial areas utilize engineered stormwater management networks and containment basins designed to isolate and remediate chemical runoff before it can reach unconfined aquifers.
- **Zoning Defensibility:** Directing industrial developers to industrial zones aligns perfectly with the Township's Master Plan. This insulates the Board from state-level legal challenges because it proves the Township is actively facilitating renewable energy placement in a safe, infrastructure-compliant

manner.

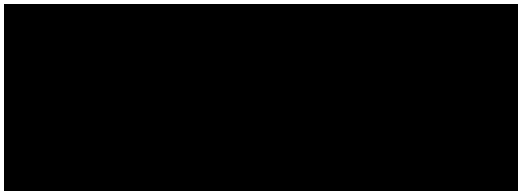
IV. Conclusion & Official Request for Action

This Board does not have to choose between violating PA 233 and compromising public safety. You possess the clear, statutory zoning authority to mandate that high-hazard, utility-scale assets utilizing massive chemical volumes must be restricted to parcels supported by municipal water, industrial drainage, and highway-grade emergency access.

We formally request that the **Planning Commission and the Board of Trustees embed strict, quantifiable groundwater protection standards and firewater containment infrastructure mandates directly into the text of the upcoming zoning ordinance. Siting this facility in an industrial corridor protects our regional water supply and delivers clean municipal profit.** Siting this project at South Van Kal Street creates an uninsurable, multi-million dollar liability that shifts private developer infrastructure costs directly onto the backs of local taxpayers and regional communities.

Thank you for your time, your leadership, and your continued dedication to protecting the physical and financial health of the Charter Township of Oshtemo and our wonderful shared surrounding community.

Respectfully submitted,



From: [REDACTED]
To: [Cheri Bell](#); [Dusty Farmer](#); [Jodi Stefforia](#); [Neil Sikora](#); [Anna Horner](#); [Clare Buszka](#); [David Kobb](#); [Sierra Lucas](#); [Kristin Cole](#); [Michael Chapman](#); [Zak Ford](#)
Cc: [James Porter](#); almenasupervisor@comcast.net
Subject: Re: Constructive Solutions for BESS Zoning & Cross-Border Water Protection
Date: Tuesday, July 21, 2026 11:58:18 AM
Attachments: [Part II Cost Benefit Analysis Osthemo water health and safety.docx](#)
[Part II Cost Benefit Analysis Osthemo water health and safety.pdf](#)
[Technical Ordinance Cheat Sheet for Utility-Scale BESS Siting.pdf](#)

CAUTION: External Email

Subject: Feedback on Draft Article 160 (Groundwater Protection) -
Vulnerabilities Re: BESS Siting

Dear Supervisor Bell, Director Stefforia, Honorable Trustees, and Members of the Planning Commission,

Thank you very much for providing a copy of the Draft Article 160 Environmental Protection Ordinance for review. It is clear that the Township staff has put significant, commendable effort into building a legal framework to protect Oshtemo's groundwater. The broad definitions of "Regulated Substances" based on Safety Data Sheets (SDS) and the mandatory "Spill Contingency Plans" are excellent foundations.

However, looking at this draft strictly through the lens of a 260-megawatt industrial Battery Energy Storage System (BESS) proposed for a rural, unconfined aquifer site like South Van Kal Street, there are a **few critical, high-risk loopholes that out-of-state developers could easily exploit to bypass these protections entirely.**

To ensure this ordinance fully insulates the Township and its neighbors from liability, I strongly recommend that the Planning Commission address the following four vulnerabilities in the final text:

- **The 2,200-Pound "Module" Loophole (Section 160.002 - Regulated Substances Exemption 1):** The draft exempts substances under 2,200 pounds if contained within an area capable of fully containing a release. Industrial BESS developers often argue that their systems are modular, consisting of hundreds of separate, self-contained battery racks or pods, each holding less than 2,200 pounds of chemical electrolytes. The ordinance must explicitly state that the 2,200-pound threshold applies to the **aggregate total volume of the entire facility**, not individual units or modules.

- **The Utility Transformer and Refrigerant Exemptions (Exemptions 5 & 6):** BESS facilities rely heavily on massive liquid-chilling refrigerants for climate control and large electrical transformers/switches to tie into the grid. If a catastrophic thermal runaway fire occurs, these are the exact components that leak toxic glycols and dielectric fluids into the ground. BESS utility assets must be explicitly excluded from these standard utility exemptions.
- **Uncapped Administrative Departures (Section 160.003 - Administration):** Giving the Public Works and Planning Directors the authority to grant "administrative departures" where "special conditions indicate" introduces a dangerous vector for industry pressure. If an out-of-state developer threatens the Township with a lawsuit under PA 233, staff should not bear the sole burden of granting or denying a waiver. High-hazard, utility-scale assets should be explicitly excluded from administrative departures, forcing all deviations to go through the full public Variance process.
- **Inadequate Financial Penalties (Section 160.009 - Violation & Penalty):** A maximum fine of \$500.00 per day is an inconsequential "cost of doing business" for a multi-million dollar energy conglomerate. While criminal misdemeanor fines are capped by state law, the Township should utilize its full civil authority to mandate that any groundwater violation by an industrial utility operator triggers **automatic suspension of their operational permit** alongside mandatory full restitution of all environmental remediation costs.

I have attached a brief, one-page **Technical Ordinance Cheat Sheet (Addendum A)** to this email that provides clean, actionable language the Planning Commission can drop directly into the upcoming text amendments to close these exact loopholes.

I have also attached **Part II** of the formal correspondence for the official public record. It includes a localized municipal cost-benefit analysis for your Township, findings from our recent meeting with a Western Michigan University hydrogeology professor, as well as a record update regarding the out-of-state landowner, Mr. Ronnie Richardson. **Please note that a physical copy of this Part II document is also being delivered via Certified Mail and hand delivery to ensure its formal entry into the permanent public record.**

Thank you again for your leadership, transparency, and your continued dedication

to protecting the physical and fiscal health of Oshtemo Township, alongside the overall health and safety of our shared community just over the border in Van Buren County. I am cc'ing our Alma Township Supervisor to keep our broader community informed.

Kind Regards,

[REDACTED]
[REDACTED]

Attachments:

1. Addendum A — Technical Ordinance Cheat Sheet (BESS Siting Criteria)
2. Formal Correspondence Part II — Municipal Liability & Regional Water Security

From: Cheri Bell <cbell@oshtemo.org>

Sent: Sunday, July 19, 2026 8:25 AM

To: [REDACTED]

Subject: Re: Constructive Solutions for BESS Zoning & Cross-Border Water Protection

WARNING: EXTERNAL SOURCE

Thank you, [REDACTED]

Appreciate your thoughtful time and consideration to the challenging matters at hand.

For your information, the Planning Commission has a work session planned for the Environmental Protection ordinance amendments. Packet can be found here:
<https://www.oshtemo.org/files/assets/public/v/1/boards-and-committees/planning-commission/agenda-packets/7-23-26-planning-commission-agenda-packet.pdf>

Enjoy the day,
Cheri

From: [REDACTED]

Sent: Wednesday, July 15, 2026 2:25 PM

To: Cheri Bell <cbell@oshtemo.org>; Anna Horner <ahorner@oshtemo.org>; Clare Buszka

<cbuszka@oshtemo.org>; Jodi Stefforia <jstefforia@oshtemo.org>; David Kobb
<dkobb@oshtemo.gov>; Sierra Lucas <slucas@oshtemo.org>; Dusty Farmer
<dfarmer@oshtemo.gov>; Kristin Cole <kcole@oshtemo.org>; Michael Chapman
<mchapman@oshtemo.org>; Zak Ford <zford@oshtemo.org>; Neil Sikora <nsikora@oshtemo.org>
Cc: almenasupervisor@comcast.net <almenasupervisor@comcast.net>; James Porter
<jposhtwp@oshtemo.org>

Subject: Constructive Solutions for BESS Zoning & Cross-Border Water Protection

CAUTION: External Email

Subject: Constructive Solutions for BESS Zoning & Cross-Border Water Protection

Dear Supervisor Bell, Director Stefforia, and Honorable Board and Planning Commission Members,

Thank you for your time, attentiveness, and the welcoming environment you provided during last night's Osthemo Township Board meeting. I know your team has been operating under immense pressure and a stressful public climate. I want to reiterate how much **your neighbors in Alma sincerely appreciate the rigorous, protective work you are putting into drafting a science-based and legally sound ordinance** under your current moratorium.

As a pediatrician specializing in community health, my goals align with yours: ensuring public safety, safeguarding vital natural resources, and establishing legally defensible zoning. To support your legal and planning departments in that endeavor, I am writing to highlight two critical takeaways from last night's Osthemo Township meeting that offer a practical path forward.

1. A Viable Alternative: Utilizing the Industrial Zone with Municipal Water

Last night's presence of a representative from Clark who has actively acquired property within Osthemo's designated industrial zone presents an ideal, common-sense solution. Rather than placing a utility-scale BESS over the highly permeable sandy loam soils and residential aquifers along the South Van Kal border that significantly threaten our water and natural resources, **directing BESS infrastructure to the industrial zone achieves multiple health and safety milestones:**

- **Infrastructure Synergy:** Industrial zones feature established access to municipal water and wastewater services. In the event of a thermal runaway incident, emergency responders have immediate access to high-volume water infrastructure required for rapid cooling, preventing the localized hydrological draws that threaten private well aquaspheres. Additionally, that suppression water could flow safely into municipal

drains rather than needing to be contained in a massive temporary basin and vacuumed out by trucks within a strict 4-hour window then driven to municipal drains to prevent toxic runoff from penetrating our aquifer.

- **Plume and Watershed Protection:** Any toxic plume resulting from a thermal runaway incident would be located far away from communities relying on well water, and crucially, far away from protected surface waters. The South Van Kal site sits directly within the highly vulnerable Hayden Creek Watershed area, whereas the industrial zone removes this environmental threat.
- **Local Accountability:** Working with invested, local entities like Clark provides the Township with transparent, accessible partners who are rooted in our community's long-term economic and environmental health.

2. The Out-of-State Landowner Liability Gap

This local accountability stands in stark contrast to the current situation on the South Van Kal site. As I mentioned last night, our attempts to serve a comprehensive legal notice via certified mail to the out-of-state landowner in Mississippi, Mr. Ronnie Richardson—who holds the property under a domestic limited liability company named "Sable Farms, LLC"—were unsuccessful. The United States Postal Service stated in an email that they were blocked from gaining physical access to deliver the notice to Mr. Ronnie Richardson.

An uncontactable, non-responsive out-of-state landlord operating behind a corporate LLC attached to a utility-scale industrial project is a significant structural and legal liability for Oshtemo Township. If an emergency occurs, your local emergency services, township attorneys, and residents require immediate, reliable points of contact. A developer layout that shields the primary landowner from certified mail is deeply problematic for local enforcement.

Moving Forward in Partnership

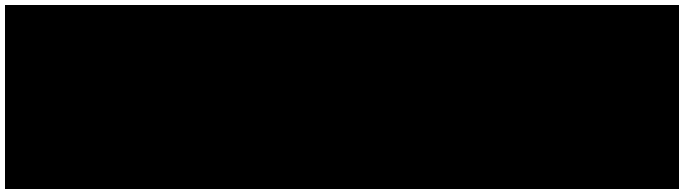
As you finalize your **Workable Incompatible Ordinance** under Public Act 233 frameworks, **we strongly encourage the Oshtemo Charter Township Planning Commission to craft language that explicitly restricts utility-scale lithium-ion storage systems from highly permeable residential border zones that rely on wells and protected watershed areas, while steering these projects toward fully serviced industrial zones.**

While developers like NewEdge may argue that shifting to an industrial zone or requiring municipal water infrastructure is cost-prohibitive, servicing NewEdge's profit margin is not the responsibility of this Board. As you know and do, your primary, statutory charge is to protect

the public health, safety, and general welfare of this community. **If adhering to rigorous, science-based environmental safety standards means NewEdge ultimately decides that Oshtemo is not the right fit for their project, that is an acceptable and legally defensible outcome.**

This approach protects our shared environment, keeps our local water safe, and ensures the Township partners only with accountable, accessible entities. **Thank you again for your dedicated service,** your warmth last night, and your continued review of the attached 6-page legal framework I submitted.

Kind Regards,



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Good Evening Commission and Community,

I live in Almena, about 1.5 m. from the land being leased by NewEdge. This is the first opportunity I have had to speak to you. I have emailed you my comments from the Township meetings, which I hope to hear answers to soon.

Other questions that require answers, are as follows:

1. What is the Commission's timeline for providing residents the WIO?
2. How has the recent lawsuit on its way to the MI Supreme Court, informed or altered your work?
 - a. Are you considering extending the moratorium as we wait to hear if the Supreme Court will take up this case?
 - b. Will the Commission gain a second legal opinion in these matters?
3. The Commission has had over a year now to strengthen ordinances.
 - a. What ordinances are being written and when will they be available for review?
 - b. Will you utilize the wetlands ordinance that was shared with you?
4. What work, if any, has been planned with Almena, to legally fight back since the Court of Appeals notes that other affected townships can now team up to fight back against projects like this?
5. What consultation has been done with EGLE?
 - a. What were the inquiries and what information was gained?
6. Will the Commission uphold their own bylaws?
 - a. In SECTION 2.0: MEETINGS (2.1 Regular Meetings) it is stated:
Meetings of the Planning Commission will be held at the Township Hall the second and fourth Thursdays of each month...
 - b. In SECTION 7.0: PLANNING COMMISSION STAFF it is stated in 7.3
Authorization/Duties:
The Planning Director, or their designee, shall: (b) **Provide information** and generally make recommendations on matters presented for Planning Commission consideration.
(c) Officially represent the Planning Commission and **serve generally as a liaison between the Planning Commission and the public.**
(d) **Cooperate with public** and private **agencies and with individuals for the development, acceptance, and effectuation of plans.**
(e) **Supply information for and encourage interested public agencies and citizen organization involvement in programs to promote public understanding and approval of planning and zoning.**

This fight is really about our humanity and our right to exist safely and to maintain our health on our property and in our community. We need protection from these sorts of dangers by local governments when we ask for it. Health and Safety (to prioritize the well-being and security of all) is listed as #1 in the Township's Comprehensive Plan.

We are not outliers when we stand up to say “No!” to this project.

This fight is being fought all across the US. In MI alone, the coalition consists of 79 townships and counties, along with the support of MTA, that are all against PA 233, and are fighting for local control to be restored to the affected communities.