GRAHAM SUSTAINABILITY INSTITUTE
CENTER FOR EMPOWERING COMMUNITIES
UNIVERSITY OF MICHIGAN

To: Cathy Cole & Jule Baldwin, Michigan Public Service Commission

From: Sarah Mills & Madeleine Krol, University of Michigan Center for EmPowering Communities

Date: June 12, 2024

RE: Staff Straw Proposal Batch 3 feedback

Dear Cathy and Julie,

Following is our feedback on the third batch of proposals staff presented at the May 28th stakeholder meeting. We felt that this feedback was easiest to provide through annotating the PDF with comments. Please let us know if you have difficulty accessing or expanding the comments (by our count there are 67 comment boxes on the PDF).

In doing our review, we aimed to identify where each of the proposed requirements maps on to PA 233 and/or how the information would be useful to the commission in making their assessment. To assist in this, we also mapped staff's recommendations on to Section 225, application instructions. Whatever isn't directly mapped is still contemplated under Section 225(1)(s). (see attached table) This identified a couple areas where staff guidance has not yet been issued which you may consider including in the June 21st recommendations. But overall, we found that these recommendations do map directly onto the law and so may provide the Commission with important information upon which to evaluate a proposal. We do offer a couple of suggestions in the annotated pdf where requirements may be pared back.

Additionally, we went back to the questions posed in the March 7th stakeholder meeting to determine if there is additional content that has not appeared in any of the straw proposals, and also add in some additional questions that have arisen in our work of helping communities prepare to amend their ordinances. While all of these are questions that linger in planners' minds as they are helping communities navigate the implementation of the law, the highlighted question on the next page is the one that we know is tricky, but which matters greatly to how communities will approach planning for renewables within the context of their land use plans. Any indication that you may be able to provide about how staff or the Commission will approach the determination of "land dedicated to energy generation" would be welcome. This is a topic that we've thought about quite a bit and would be happy to share pros and cons of different approaches.

Thank you, again, for all of the work your team has put into this process—and the work that is yet to come! We have appreciated the transparency in your thought process behind the straw proposals, and your diligence trying to provide answers so that folks can make decisions accordingly.

~Madeleine and Sarah

Lingering questions from the March 7th presentation

Questions about CREOs (slides 45-48)

- (original question 3): It's still not clear to us what will happen if there is a dispute between a developer and a local government about whether or not a local ordinance is a CREO. Making clear whether these should be taken to the courts (as a zoning question) or the Commission (as a question of the eligibility to apply for PA 233) might help minimize the questions/disputes that will arise in November.
- (original question 5): We provided feedback on this in Batch 1, but want to reiterate, after seeing the likely list of Section 226(6) conditions in Batch 3, that it would be helpful to clarify whether or not local governments may reasonably apply the same conditions likely applied by the Commission if they are regulating projects through a CREO.
- (original question 10): In Batch 1 we suggested greater clarity that developers and local units may pursue land use approval through a non-CREO zoning ordinance. It would further be helpful to clarify whether or not a local unit that denies a project in this non-CREO ordinance will incur the same Section 223(3)(d) penalties as local unit that does claim it has a CREO.
- (original question 11): Since the timeclock for CREO approval starts with the application being filed rather than when it's deemed complete, what happens if the local government can't act within 120 day (or 240 days) because the developer hasn't provided a complete application?
- (original question 12): It would be helpful to clarify whether Airport Zoning and Natural Rivers zoning factor into an application that comes before the commission. Should applicants get approvals from those entities first? Does PA 233 supersede these authorities?

Questions about MPSC application of the law (slides 51-52)

- (original question 6): If the project will impact local land use / percentage of land in energy generation, is the only remedy additional conditions, or does the Commission have the authority to deny or alter the project?
- (new, related question): In the Batch 3 proposed instructions, there is no requirement that the applicant provide information about the land area in the local unit dedicated to energy generation. Is this something that the Commission will calculate or something that the local unit intervenors should calculate? Is there any standard by which that calculation should be done? Is it all participating land? Land behind the fence (solar, BESS), with a turbine on it (wind)?
- (new, related question): This was raised in the May 15th meeting by Lee Andre, but a question that many communities are asking what the expectation of the commission is in making the determination; said another way, how much land is a local unit expected to have dedicated to energy generation. Is this calculated at the township/city/village or county level? Lee's specific question was asking county-wide, so if a neighboring township/city/village in the county has exceeded its expected energy generation allocation, does that reduce the expected energy generation contribution of the neighbor?
- (original question 7): How will "unreasonably diminish farmland" be applied?
- (original question 9): What is the enforcement mechanism to ensure that the developer upholds conditions of approval? Is there a performance guarantee to ensure vegetation is established and maintained per the conditions of approval? For any of the other conditions, what happens if the developer does not comply? Is their certificate revoked? Are they fined?

- (new question): For Section 225(1)(k) Will the application instructions make clear who within each of the agencies should be consulted?

Questions about enforcement/follow-up (slide 55)

- (original question 3): As developers noted in the April 26th meeting, there is already some confusion between local units and developers about what components of a renewable energy project are subject to the building code / need permits. Is there any clarity from LARA on who will be responsible for issuing building permits/conducting inspections for projects approved at the state level, or which may further clarify building permit issues for any/all projects?

Questions about process (slides 57-58)

- (original question 6): If a project is in 2 local units who have CREOs and one denies or fails to act, does the whole project go to the state, or just that portion? If the whole project, do both lose their intervenor funds?

Questions about host community benefits (slide 60)

- (all 3 questions) Host community benefits have not yet been addressed yet in any of the straw proposals. We recognize that, in particular, the question about which affected local unit(s) will receive the $2/MW is monetarily consequential and hinges on the disputed definition of affected local unit. As we noted in our comments to Batch 1, this to us seems to be the place where if it's not sorted out now, there will be lawsuits (and that there may even be lawsuits if it is sorted out but stakeholders continue to disagree). But this issue will continue to surface and so it would be helpful for all involved to know whether staff is expecting agreements with both the county and the city/township (and sometimes village), or only an agreement with the zoning authority. We would suggest that if the agreement is to be with the zoning authority, there are a couple dozen (21) townships which have formed "joint" zoning authorities pursuant to MCL 125.135 [see the Energy Zoning database for a map: https://energyzoning.org/maps/mi/divisions?zj=3&keywords=] and so this should be contemplated in any guidance.

Questions about applicability (slide 61)

- (original question 1): we're not sure that we've seen guidance on which standards apply to hybrid projects or how the nameplate capacity will be determined (to determine if they are large enough to meet the Section 221 capacity thresholds for MPSC to issue a certificate)
- (original question 2): Is the nameplate capacity measured in DC or AC?
- (original question 3): Is MPSC not regulating MET towers? Does Section 231 (1) only apply to MET towers in projects that are covered by Section 222?
- (original question 4): How should a local government invoke the second sentence of section 222(2)? Just by saying so in their zoning ordinance or by resolution of the governing body? Or do they need to submit a formal request to the Commission? If the local unit has zoning authority, but doesn't have a CREO in place, presumably the applicant can apply for a certificate even if the local unit has not invoked Section 222(2), right? Some clarity on this would be helpful.

REQUEST FOR INFORMAL COMMENTS

As part of the MPSC Staff's collaboration with local units of government, project developers, and other interested persons to develop application filing instructions and guidance for the Commission's consideration to implement the provisions of PA 233 of 2023 for renewable energy and energy storage facility siting, the MPSC Staff is requesting informal comments on the items presented in this document. This is a ***partial draft*** which will be refined over time based on comments received and further engagement with subject-matter experts and interested persons. Today, we are seeking comments on the following initial Staff Straw Proposals included within this document:

a. Site plans and minor changes
b. Emergency response and fire response plans
c. Conditions for consideration

Comments responding to these draft straw proposals, which may be in the form of redlined suggestions, general comments, or the identification of other items that should be considered are requested from local units of government, project developers, subject matter experts, and interested members of the public.

Please submit your informal comments on these items by email to
colec1@michigan.gov and baldwinj2@michigan.gov
with Siting Comments in the subject line.
Your comments are requested on these items by June 12, 2024.

Comments received will help to inform what the Staff eventually files in Case No. U-21547 as Staff's proposal which is due to be filed by June 21, 2024.

If you have not already done so, please consider signing up for our email distribution list to receive future communications related to the implementation of PA 233 at the bottom of the Renewable Energy and Energy Storage Facility Siting webpage.

####### ATTORNEY-CLIENT PRIVILEGED INFORMATION #######

STAFF DRAFT STRAW PROPOSAL ON SITE PLANS AND MINOR CHANGES

Sec. 224. (1) A site plan required under section 223 or 225 shall meet application filing requirements established by commission rule or order to maintain consistency between applications. The site plan shall include the following:

> *(a) The location and a description of the energy facility.*
>
> *(b) A description of the anticipated effects of the energy facility on the environment, natural resources, and solid waste disposal capacity, which may include records of consultation with relevant state, tribal, and federal agencies.*
>
> *(c) Additional information required by commission rule or order that directly relates to the site plan.*
>
> *(2) When it submits a site plan required under section 223 or 225 to the commission, an electric provider or independent power producer shall, for informational purposes, submit a copy to the clerk of each affected local unit.*

Straw proposal primarily developed from:

- NY Regulations: chapter-xviii-title-19-of-nycrr-part-900-subparts-900-1-through-900-15.pdf
- Ohio regulations: OPSB Rule Review | Ohio Power Siting Board and ViewImage.aspx (state.oh.us)
- WI regulations: PUBLIC SERVICE COMMISSION OF WISCONSIN and PSC Wind Siting Rules
- UM Capstone report recommendations and lessons learned.
- Discussions with subject matter experts, developers, local government officials and public comments received earlier in the process.

SITE PLAN

SITE PLAN SECTION 1 – PLANNED FACILITIES:

(a) Latest- or recent-edition USGS maps (1:24,000 topographic edition, utilizing GIS mapping to the extent available), showing the proposed facilities including a two-mile radius from the project area facility showing: (electronically in geospatial mapping format with the ability to toggle layers on and off provided to Staff and other parties to the case upon request with pdf files submitted in the docket)

(1) The proposed location of the facility and potential right-of-way extents, including proposed electric collection and transmission lines and interconnections, all fenced in or secured areas, as well as ancillary features located on the facility site such as roads, railroads, switchyards, energy generation, storage or regulation facilities, substations and similar facilities;

(2) The proposed location of any off-site utility interconnections, including all electric transmission lines, communications lines, stormwater drainage lines and

appurtenances thereto, to be installed connecting to and servicing the site of the facility;

(3) The proposed limits of clearing and disturbance for construction of all facility components and ancillary features;
(4) Major institutions, parks, and recreational areas;
(5) Lakes, reservoirs, streams, canals, rivers, wetlands, and other waterbodies;
(6) Population centers and legal boundaries of cities, villages, townships, and counties;
(7) Sensitive receptors within 1000 feet of the site (such as occupied buildings);
(8) The location of inverters and other noise-emitting facilities in relation to sensitive receptors, property lines, and public rights-of-way;
(9) The area of the proposed site or right-of-way for the facility, and the identification of participating properties and adjacent properties;
(10) The location of any deeded easement that exists within the footprint of the facility.

The applicant should ensure that all items provided are clear and legible which could entail providing some of the requested items on separate layers, separate pdf maps, or by showing some areas on another scale.

(b) An aerial photograph with depictions of planned facilities, fences, roads, occupied buildings, and planned screening, landscaping, and vegetative cover.

(c) A dimensioned drawing or map with dimensions added showing setbacks from the project boundary and fences to all structures on participating properties, road rights-of-way, waterways, wetlands, occupied buildings and structures on non-participating properties, and property lines of non-participating properties.

(d) A description of the maximum height of solar panels, wind turbines, storage facilities, and associated electrical equipment in relation to existing overhead communication and electric transmission lines, in relation to the maximum height allowed under a Determination of No Hazard to Air Navigation by the Federal Aviation Administration under 14 CFR part 77 (for wind turbines).

SITE PLAN SECTION 2– AREA LAND USE INFORMATION:

(e) Latest- or recent-edition USGS maps (utilizing GIS mapping to the extent available) showing the proposed facilities and surrounding area showing (electronically in geospatial mapping format with the ability to toggle layers on and off provided to Staff and other parties to the case upon request when feasible, with pdf files submitted in the docket):

(1) Maps clearly showing the location of the facility and all ancillary features not located on the facility site in relation to municipal boundaries and taxing jurisdictions, at a scale sufficient to determine and demonstrate relation of facilities to those geographic and political features.
(2) A map showing existing and proposed land uses within the facility and surrounding area including, but not limited to, the identification of prime farmland and cultivation of specialty crops.
(3) A map of any existing overhead and underground major facilities for electric, gas or telecommunications transmission within the facility and surrounding area and a summary of any

consultations with owners of major facilities for electric, gas or telecommunications that may be impacted by the facility (crossing existing utilities or otherwise).

(4) A map of all properties upon which any component of a facility or ancillary feature would be located, and for wind facilities, all properties within two thousand (2,000) feet of such properties, and for solar or storage projects, all properties within one thousand (1,000) feet, that shows the current land use, tax parcel number and owner of record of each property, and any publicly known proposed land use plans for any of these properties. Also identify any parcels within the project boundaries participating in farmland development rights agreements under Michigan's Farmland and Open Space Preservation Program (PA 116).

(5) A map of existing local zoning districts and proposed zoning districts within the facility and surrounding area and a description of the permitted and the prohibited uses within each zone. For "floating" or "overlay" zones that are not specifically attributable to a specific mapped zoning district, describe the applicable substantive criteria that apply for establishment of the overlay zone.

(6) Maps showing designated coastal areas, inland waterways, groundwater management zones, designated agricultural districts, flood-prone areas, and coastal erosion hazard areas, that are located within the facility and surrounding area.

(7) Maps showing recreational and other land uses within the facility and surrounding area that might be affected by the sight or sound of the construction or operation of the facility, interconnections and related facilities, including wild, scenic and recreational river corridors, open space, and any known archaeological, geologic, historical or scenic area, park, designated wilderness, forest lands, scenic vistas, conservation easement lands, federal or state designated scenic byways , nature preserves, designated trails, and public-access fishing areas, major communication and utility uses and infrastructure, and institutional, community and municipal uses and facilities.

(8) A map depicting the proposed facilities, adjacent properties, all structures within participating and adjacent properties, property lines, and the projected sound isolines along with the modeled sound isolines including the statutory limit and any limits that have been adopted in administrative rules by the MPSC. (N/A right now)

(9) A map or schematic showing the area that will be impacted by shadow flicker for wind facilities.

The applicant should ensure that all items provided are clear and legible which could entail providing some of the requested items on separate layers, separate pdf maps, or by showing some areas on another scale.

SITE PLAN SECTION 3 – EXPLANATORY INFORMATION:

(f) Written explanations of the elements and features shown on all provided maps as well as other planned site/facility information including a description of the project area and the portion of the community where the project will be sited including socioeconomic and demographic profiles, major industries in the area, and local land use plans and policies. Examples of relevant project area information include: geography, topography, population centers, major industries, and landmarks.

(1) Provide justification for how the proposed project location, layout, construction methods, etc. minimize:

a) Environmental impacts
b) Noise
c) Visual impacts
d) Impacts to traffic
e) Impacts to solid waste disposal capacity
f) Other impacts to property owners during construction and operation.

(2) The number of acres, of the proposed site or right-of-way for the facility.
(3) Describe any unusual features and explain how the proposed project design accounts for unusual features.
(4) Written descriptions explaining the relation of the location of the facility site, and all ancillary features not located on the facility site, to the affected municipalities and taxing jurisdictions.
(5) A statement as to whether any applicable local jurisdiction has an adopted comprehensive plan applicable to lands on which facility components or ancillary facilities are located and whether the proposed facility is consistent with such comprehensive plan. A copy of the plan shall be provided in the application, with an indication of plan sections applicable to the proposed uses.
(6) A qualitative assessment of the compatibility of the facility, including any off-site staging and storage areas, with existing, proposed and allowed land uses and local and regional land use plans, located within a two (2)-mile radius of the facility site. The assessment shall identify the nearby land uses of particular concern to the community and shall address the land use impacts of the facility on residential areas, schools, civic facilities, recreational facilities, and commercial areas. The assessment and evaluation shall demonstrate that conflicts from facility-generated noise, traffic and visual impacts with current and planned uses have been minimized to the extent practicable.
(7) A qualitative description of the planned screening, landscaping, and vegetative cover.
(8) A written description of how planned fencing complies with the latest version of the National Electric Code.
(9) A report detailing the sound modeling results along with mitigation plans to ensure that sound emitted from the facilities will remain below the statutory limit throughout the operational life of the facilities.
(10) Plans to comply with dark sky-friendly lighting solutions for solar or storage facilities and light-mitigation plans for wind facilities, including exemptions requested for during the construction period.
(11) A report detailing the flicker modeling results for wind facilities along with mitigation plans to ensure that flicker will remain below the statutory limit throughout the operational life of the facilities.
(12) An emergency response plan and a fire response plan for the facilities.
(13) 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. A description and supporting records of consultations, including any consultations with relevant state, tribal, and federal agencies, that have taken place related to the anticipated impacts and plans to mitigate impacts to the environment and natural resources.
(14) An Unanticipated Discoveries Plan (UDP) including the following:

A. A set of procedures to be followed if cultural resources are discovered. Examples of cultural materials include, but are not limited to:
   (a) An accumulation of shell, burned rocks, or other food related materials
   (b) Bones or small pieces of bone
   (c) An area of charcoal or very dark stained soil with artifacts
   (d) Stone tools or waste flakes (i.e., an arrowhead, or stone chips)
   (e) Clusters of tin cans or bottles
   (f) Logging or agricultural equipment that appears to be older than 50 years
   (g) Buried railroad tracks, decking, or other industrial materials
B. A set of procedures to be followed if human remains are discovered
C. A contact list that includes the following:
   (a) Contact for the State Historic Preservation Office
   (b) Contacts for Tribal Historic Preservation Offices of Michigan
   (c) Local, project specific, emergency contacts (i.e., County Sheriff, County Medical Examiner, etc.)

(15) A list of all parcels that are participating or adjacent to the proposed facilities, including land-owner information for each parcel. Land-owner information may be redacted and filed confidentially pursuant to protective order at the discretion of the applicant.

(16) Proposed complaint resolution process for the site. The complaint process should include the name of a designated developer/operator representative provided with the authority to resolve local complaints, a dedicated phone number for complaints, an email address for complaints, and website information instructing the public on the complaint resolution process. The complaint process should include regular reporting of complaints received and how each complaint was resolved to be filed on a periodic basis in the docket.

(17) The list of local governments which were provided copies of the site plan pursuant to MCL 460.1224 (2) as well as the dates the site plans were provided to each..

(18) Plans to comply with any more stringent requirements that may be adopted in administrative rules.

SITE PLAN SECTION 4 - CONSTRUCTION INFORMATION

(g) Describe the project's proposed installation methods. The proposed site clearing, construction methods, and reclamation operations, including:

(1) Soil Surveying and testing, pursuant to Act 45
(2) Grading and excavation.
(3) Construction of temporary and permanent access roads, staging areas, and 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 facilities
(7) Post-construction restoration.
(8) Maps showing the following:
   A. The planned routes for cranes and other heavy equipment.

B. The location of any existing deeded easement granted to any entity within the footprint of the facility.
C. The location of all existing and proposed drains, drain easements, and underground drainage tile including data provided by the county drain commission.

SITE PLAN SECTION 5– CHANGES AND ALTERNATIVES

(h) A map and description of any future modifications or variations in the proposed site plan, including the nature and approximate timing of contemplated changes.

(i) A map and description of each alternative site location, proposed site layout, or other alternatives that are or were being considered, including rationale for why alternative locations were not selected for development.

_____

MINOR CHANGES:

Section 222(3) If the commission has issued a certificate for an energy facility, the electric provider or IPP may make minor changes, as defined by the commission, to the site plan if the changes are within the footprint of the previously approved site plan.

PROPOSED DEFINITION / GUIDANCE: A minor change does not include an increase in capacity or output from the facilities, nor does it include a change in planned technologies (such as the addition of storage to an existing site or other technological changes impacting noise or permit requirements), nor does it include reduced setbacks from any part of the planned facilities to occupied structures, non-participating property lines, public rights-of-way, or changes in the height of any facilities from what was included in an approved application, nor does a minor change require revised permits from any federal, state, or local permitting agency.

STAFF DRAFT STRAW PROPOSAL FOR FIRE AND EMERGENCY RESPONSE PLANS

Staff recommends the Commission consider adopting the following guidance related to the requirement for a fire response plan and an emergency response plan as outlined in PA 233 of 2023.

(All Projects) Application for certificate under 222(2) shall contain all of the following…..

Section 225 (q) - A fire response plan and an emergency response plan.

(Energy Storage Only) *Section 226(8)(c)(ii) - The energy storage facility complies with the version of NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems" in effect on the effective date of the amendatory act that added this section or any applicable successor standard adopted by the commission as reasonable and consistent with the purposes of this subdivision.*

Straw proposal primarily developed from:

- NY Regulations: chapter-xviii-title-19-of-nycrr-part-900-subparts-900-1-through-900-15.pdf
- NFPA 855: https://link.nfpa.org/free-access/publications/855/2023
- Pacific Northwest National Laboratory report, "Energy Storage in Local Zoning Ordinances"
- University of Michigan report, "Power in Partnership: Insights for siting utility-scale renewables in Michigan"
- Discussions with subject matter experts.

FIRE AND EMERGENCY RESPONSE PLANS

1. The application shall include an Emergency Response Plan (ERP). The ERP shall include:
    a. Evidence of consultation or a good faith effort to consult with local first responders to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local first responders is not possible, provide evidence of consultation or a good faith effort to consult with other local emergency managers.
    b. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate Fire Response Plan);
    c. Emergency response measures by contingency;
    d. Evacuation control measures by contingency;
    e. Community notification procedures by contingency; and
    f. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles.
    g. A commitment to review the ERP annually with fire departments and first responders and update as needed.
    h. Other information the applicants finds relevant.
2. The application shall include a Fire Response Plan (FRP). The FRP shall include:
    a. Evidence of consultation or a good faith effort to consult with local fire department representatives to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local fire department

representatives is not possible, provide evidence of consultation or a good faith effort to consult with the State Fire Marshal or other local emergency manager.

b. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.
c. A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.
d. A commitment to conduct, or provide funding to conduct, 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 local fire departments with the project, hazards, procedures, and current best practices.
e. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity.
f. Other information the applicants finds relevant.

3. Changes to the design, type, manufacturer, etc. of facilities after the initial filing must be analyzed to determine if changes are necessary to the ERP or FRP. Additional consultation with local fire department and first responder is required for amended plans.
4. In addition to the requirements above, applications for energy storage projects shall include the following in compliance with NFPA 855:
    a. Commissioning Plan (4.2.4 & 6.1.3.2)
    b. Emergency Operation Plan (4.3.2.1.4)
    c. Hazard Mitigation Analysis (4.4)

Screenshots from NFPA 855 (For reference in development of guidelines)

https://link.nfpa.org/free-access/publications/855/2023

4.2.4 Commissioning Plan. A commissioning plan meeting the provisions of Chapter 6 shall be provided to the building owner or their authorized agent and the AHJ.

6.1.3 Commissioning Plan.

6.1.3.1 The system installer or commissioning agent shall prepare a written commissioning plan that provides a description of the means and methods necessary to document and verify that the system and its associated controls and safety systems, as required by this standard, are in proper working condition.

6.1.3.2 The commissioning plan shall include, but not be limited to, the following information:

(1) An overview of the commissioning process developed specifically for the ESS to be installed and narrative description of the activities to be conducted
(2) Roles and responsibilities for all those involved in the design, commissioning, construction, installation, or operation of the system(s)
(3) Means and methods whereby the commissioning plan will be made available during the implementation of the ESS project(s)
(4) Plans and specifications necessary to understand the operation of the ESS and all associated operational controls and safety systems
(5) A detailed description of each activity to be conducted during the commissioning process, who will perform each activity, and at what point in time the activity is to be conducted
(6) Procedures to be used in documenting the proper operation of the ESS and all associated operational controls and safety systems
(7) Testing for any required fire detection or suppression and thermal management, ventilation, or exhaust systems associated with the installation and verification of proper operation of the safety controls
(8) The following documentation:
    (a) Commissioning checklist
    (b) Relevant operational testing forms
    (c) Necessary commissioning logs
    (d) Progress reports
(9) Means and methods whereby facility operation and maintenance staff will be trained on the system
(10) Identification of personnel who are qualified to service and maintain the system and respond to incidents involving each system
(11) A decommissioning plan meeting the provisions of Section 8.1 that covers the removal of the system from service and from the facility in which it is located and information on disposal of materials associated with each ESS

4.3 Emergency Planning and Training.

4.3.1* General. For ESS installations that exceed the maximum stored energy limits of Table 9.4.1, emergency planning and training shall be provided by the owner of the ESS or their authorized representative so that ESS facility operations and maintenance personnel and emergency responders can address foreseeable hazards associated with the on-site systems.

4.3.2 Facility Staff Planning and Training. For ESS installations that exceed the maximum stored energy limits of Table 9.4.1, an emergency operations plan and associated training shall be established, maintained, and conducted by ESS facility operations and maintenance personnel.

4.3.2.1 Emergency Operations Plan.

4.3.2.1.1 An emergency operations plan shall be readily available for use by facility operations and maintenance personnel.

4.3.2.1.2 For normally occupied facilities, the emergency operations plan shall be on site.

4.3.2.1.3 The plan shall be updated when conditions that affect the response considerations and procedures change.

4.3.2.1.4 The emergency operations plan shall include the following:

(1) Procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions
(2) Procedures for inspection and testing of associated alarms, interlocks, and controls
(3)* Procedures to be followed in response to notifications of system alarms or out-of-range conditions that could signify potentially dangerous conditions, including shutting down equipment, summoning service or repair personnel, and providing agreed-upon notification to fire department personnel, if required
(4)* Emergency procedures to be followed in case of fire, explosion, release of liquids or vapors, damage to critical moving parts, or other potentially dangerous conditions
(5) Response considerations similar to a safety data sheet (SDS) that will address response safety concerns and extinguishment when an SDS is not required
(6) Procedures for dealing with ESS equipment damaged in a fire or other emergency event, including contact information for personnel qualified to safely remove damaged ESS equipment from the facility
(7) Other procedures as determined necessary by the AHJ to provide for the safety of occupants and emergency responders
(8) Procedures and schedules for conducting drills of these procedures

4.3.2.1.5 The emergency operations plan in 4.3.2.1 shall not be required for electric utility facilities under the exclusive control of the electric utility located outdoors or in building spaces used exclusively for such installations.

4.4 Hazard Mitigation Analysis (HMA).

4.4.1* A hazard mitigation analysis shall be provided to the AHJ for review and approval where any of the following conditions are present:

(1) Technologies not specifically addressed in Table 1.3 are provided
(2) More than one ESS technology is provided in a single fire area where adverse interaction between the technologies is possible
(3) Where allowed as a basis for increasing maximum stored energy as specified in 9.4.1.1 and 9.4.1.2
(4) Where required by the AHJ to address a potential hazard with an ESS installation that is not addressed by existing requirements
(5) Where required for existing lithium-ion ESS systems that are not UL 9540 listed in accordance with 9.2.2.1
(6) Where required for outdoor lithium-ion battery ESS systems in accordance with 9.5.2.1

4.4.2 Failure Modes.

4.4.2.1* The hazard mitigation analysis shall evaluate the consequences of the following failure modes and others deemed necessary by the AHJ:

(1) A thermal runaway or mechanical failure condition in a single ESS unit
(2) Failure of an energy storage management system or protection system that is not covered by the product listing failure modes and effects analysis (FMEA)
(3) Failure of a required protection system including, but not limited to, ventilation (HVAC), exhaust ventilation, smoke detection, fire detection, fire suppression, or gas detection

4.4.2.2 Only single failure modes shall be considered for each mode given in 4.4.2.1.

4.4.3 The AHJ shall be permitted to approve the hazard mitigation analysis as documentation of the safety of the ESS installation if the consequences of the analysis demonstrate the following:

(1) Fires will be contained within unoccupied ESS rooms for the minimum duration of the fire resistance rating specified in 9.6.4.
(2) Fires and products of combustion will not prevent occupants from evacuating to a safe location.
(3) Deflagration hazards will be addressed by an explosion control or other system.

4.4.4 The hazard mitigation analysis shall be documented and made available to the AHJ and those authorized to design and operate the system.

4.4.5* Construction, equipment, and systems that are required for the ESS to comply with the hazard mitigation analysis shall be installed, tested, and maintained in accordance with this standard and the manufacturer's instructions.

####### ATTORNEY-CLIENT PRIVILEGED INFORMATION #######

STAFF DRAFT STRAW PROPOSAL ON CONDITIONS for consideration

Staff recommends the Commission consider adopting guidance that the following conditions should be considered in contested cases held pursuant to PA 233.

Sec. 226: (6) In evaluating the application, the commission shall consider the feasible alternative developed locations described under section 225(1)(n), if applicable, and the impact of the proposed facility on local land use, including the percentage of land within the local unit of government dedicated to energy generation. ***The commission may condition its grant of the application on the applicant taking additional reasonable action related to the impacts of the proposed energy facility, including, but not limited to****, the following:*
(a) Establishing and maintaining for the life of the facility vegetative ground cover. This subdivision does not apply to an application for an energy facility that is proposed to be located entirely on brownfield land.
(b) Meeting or exceeding 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 in effect on the effective date of the amendatory act that added this section or any applicable successor standards approved by the commission as reasonable and consistent with the purposes of this subdivision. 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 and supporting regional partners. This subdivision does not apply to an application for an energy facility that is proposed to be located entirely on brownfield land.
(c) Providing for community improvements in the affected local unit.
(d) Making a good-faith effort to maintain and provide proper care of the property where the energy facility is proposed to be located during construction and operation of the facility.

Straw proposal primarily developed from:

- UM Capstone report recommendations and lessons learned.
- Minnesota Department of Commerce procedures and requirements: Energy Environmental Review and Analysis Home (state.mn.us)
- Discussions with subject matter experts, developers, local government officials, and public comments received earlier in the process.

Staff recommends that these conditions are permissible under Section 226(6) and recommends the Commission adopt guidance indicating that the following conditions (**at a minimum**) should be considered by parties in cases filed at the MPSC pursuant to PA 233. The Commission may condition approval of a certificate upon the following:

1. An agreement from the applicant to hire a third-party independent monitor, funded by the applicant, selected in consultation with the MPSC Staff and to the extent practicable, the local unit of government, to be onsite during the construction process on a weekly basis to monitor the construction activities. The third-party independent monitor could provide weekly reports to the MPSC Staff, the local unit of government, and the applicant from the start of construction and continuing through the first 3 months of commercial operation.
2. An agreement to participate in a pre-construction meeting with the MPSC Staff, to the extent practicable local units of government which may include the County drain commissioner, and the third-party monitor to review final drawings signed by a professional engineer and plans and to review final approved permits and associated permit conditions prior to the start of

construction. The certificate could also be conditioned on filing the final drawings, plans, and permits received in the docket prior to the start of construction.

3. An agreement by the applicant to repair or replace all public and private drainage systems damaged from construction or decommissioning processes.
4. An agreement to file mechanical completion certificates for the facilities in the docket.
5. An agreement from the applicant to a complaint process that is agreeable to Staff and to the extent practicable, the local unit of government. The complaint process should include the name of a designated developer/operator representative provided with the authority to resolve local complaints, a dedicated phone number for complaints, an email address for complaints, and website information instructing the public on the complaint resolution process. The complaint process should include regular reporting of complaints received and how each complaint was resolved to be filed on a periodic basis in the docket.
6. An agreement to provide emergency contact information for the site in the docket and keep it updated on an annual basis.
7. An agreement to the planned implementation of screening that is mutually agreeable to local landowners, the MPSC Staff, and to the extent practicable, the local unit of government or another intervening party.
8. An agreement to the planned implementation of vegetative ground cover in consideration of Michigan State University's "Michigan Pollinator Habitat Planning Scorecard for Solar Sites" avoiding invasive species that is mutually agreeable to local landowners, the MPSC Staff, and to the extent practicable, the local unit of government, or another intervening party.
9. An agreement to bury underground facilities to a depth that is mutually agreeable to the landowners, the MPSC Staff, and to the extent practicable, the local unit of government or another intervening party.
10. An agreement to hire a third-party acoustics expert to conduct post-construction sound measurements and file the report in the docket. An agreement that if the post-construction sound measurements are close to or do not meet the statutory requirements, noise mitigation plans will be implemented and the post-construction sound measurements will be repeated and the results will be filed in the docket.
11. An agreement to conduct additional third-party sound measurements and if the sound level is not compliant with the statute, to implement noise mitigation during facility operations should significant complaints be received by the developer/operator, the local unit of government, or the MPSC.
12. An agreement to mitigate flicker that does not meet the statutory provisions.
13. An agreement to remedy at the applicant's cost, any electromagnetic interference that is disrupted by any wind energy facility and restore reception to at least the levels present before the wind energy facility began operations.
14. An agreement by the developer/operator to provide ongoing annual training for local fire departments and other first responders.
15. Approval contingent upon receiving approval for all other applicable state, federal, and local permits and an agreement to file a finalized list of all permits required for the construction of the process along with the permitting agency and when the permit was granted in the docket.
16. Approval contingent upon the execution of a decommissioning agreement approved by the Commission and an agreement to demonstrate that financial assurance has been acquired and

will be maintained throughout the operational life of the facilities, as outlined in the decommissioning agreement.

17. An agreement to comply with all other applicable (non-zoning) ordinances throughout the operational life of the facilities that were in effect at the time the MPSC certificate was issued.
18. An agreement to comply with the provision of periodic reports over time on the amount of electricity produced per turbine or per parcel, a report listing complaints received during the time period as well as the developer/operators' response including resolution and/or plans for mitigation, a report outlining the operating condition and performance of the facilities on the site (including non-producing ancillary equipment, structures, fencing, locks, gates, screening, vegetative ground cover and other items specifically listed in the condition), a report listing 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, and a report of any 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, to be filed in the docket.
19. An agreement to provide annual maintenance plans and annual inspection results in the docket.
20. An agreement to file a glare technical study and glare mitigation plans in the docket.
21. An agreement to provide for community improvements in the affected local unit.
22. An agreement to maintain proper care for the property where the energy facility is proposed and to be located during the construction and operation of the facility.
23. An agreement to utilize a project labor agreement or operate under a collective bargaining agreement for the construction and maintenance work to be performed.
24. An agreement to indemnify and hold harmless the Commission and its officials, employees, agents, and representatives for any and all claims or causes of action arising from any acts or omissions of the certificate recipient done in connection with the issuance of the certificate.
25. An agreement confirming the applicant's acceptance and agreement to comply with all terms and conditions in the certificate.

Subsections	Required items	Relation to Standards [226]	References to Batch 3 Proposed elements
224 (1a)	The location and a description of the energy facility		1.a.1; 1.a.2
224 (1b)	A description of the anticipated effects of the energy facility on the environment, natural resources, and solid waste disposal capacity, which may include records of consultation with relevant state, trial and federal agencies	(7-c)	3.f.1
224 (1c)	Additional information		
SECTION 225			
(a)	The complete **name, address, and telephone number** of the applicant.	procedure	
(b)	The **planned date** for the start of construction and the expected duration of construction.	procedure	
(c)	A description of the **energy facility**, including **a site plan*** as described in section 224. * [Sec. 225] the site plan shall include: (a) **The location and a description of the energy facility**. (b) A description of **the anticipated effects** of the energy facility **on the environment, natural resources, and solid waste disposal capacity**, which may include records of consultation with relevant state, tribal, and federal agencies. (c) Additional information required by commission rule or order that directly relates to the site plan.	(7-c), (7-d)	see above
(d)	A description of the **expected use** of the energy facility.	procedure	may want to clarify what the expectation is here.
(e)	**Expected public benefits** of the proposed energy facility.	(7-a)	3.f.4
(f)	**The expected direct impacts** of the proposed energy facility **on the environment and natural resources** and how the applicant intends to address and mitigate these impacts.	(7-c), (7-e)	this is covered by 3.f.1
(g)	Information on **the effects** of the proposed energy facility **on public health and safety**.	(7-g)	since the law says public health and safety is covered by complying with 226.8, site plans showing sound, setbacks, etc see to meet this.
(h)	A description of the portion of **the community** where the energy facility will be located.	procedure	3.f.5; 3.f.6
(i)	A statement and reasonable evidence that the proposed energy facility 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.	procedure	may want to provide examples of what is "reasonable evidence"
(j)	A summary of **the community outreach and education efforts** undertaken by the electric provider or independent power producer, including a description of the public meetings and meetings with elected officials under section 223.	(7-a)	partially discussed in Batch 1 straw proposals; info about what is required to be reported from meetings with elected officials was not covered
(k)	Evidence of **consultation, before submission of the application**, with the department of environment, Great Lakes, and energy and other relevant state and federal agencies before submitting the application, including, but not limited to, the department of natural resources and the department of agriculture and rural development.	procedure	3.f.13
(l)	**The soil and economic survey report** under section 60303 of the natural resources and environmental protection act, 1994 PA 451, MCL 324.60303, for the county where the proposed energy facility will be located.	(7-a), (7-c), (7-e)	4.g.1
(m)	**Interconnection queue information** for the applicable regional transmission organization.	(7-a)	may want to clarify what is required
(n)	If the proposed site of the energy facility is undeveloped land, a description of **feasible alternative developed locations**, including, but not limited to, vacant industrial property and brownfields, and an explanation of why they were not chosen.	(7-b)	5.i
(o)	If the energy facility 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 commission or the electric provider or independent power producer except pursuant to court order.	(7-g)	It's unclear how to know if this is relevant (i.e., if the energy facility is reasonable expected to have an impact) without some sort of engineering modeling / analysis; you may want to consider requiring the study, and then, if an impact is expected, the plan to miinimize and mitigate
(p)	**A stormwater assessment** and a plan to minimize, mitigate, and repair any drainage impacts at the expense of the electric provider or IPP. The applicant shall make reasonable efforts to consult with the county drain commissioner before submitting the application and shall include evidence of those efforts in its application.	(7-c), (7-e)	1.a.2; we anticipate that guidance will come as a result of the Drain Commissioners' presentation at the last meeting
(q)	**A fire response plan** and **an emergency response plan**.	(7-g)	3.f.12

(r)	**A decommissioning plan** that is consistent with agreements reached between the applicant and other landowners of participating properties and that ensures the return of all participating properties to a useful condition similar to that which existed before construction, including removal of above-surface facilities and infrastructure that have no ongoing purpose. The decommissioning plan shall include, but is not limited to, **financial assurance** in the form of a bond, a parent company guarantee, or an irrevocable letter of credit, but excluding cash. The amount of the financial assurance shall not be less than the estimated cost of decommissioning the energy facility, after deducting salvage value, as calculated by a third party with expertise in decommissioning, hired by the applicant. However, the financial assurance may be posted in increments as follows: (i) At least 25% by the start of full commercial operation. (ii) At least 50% by the start of the fifth year of commercial operation. (iii) 100% by the start of the tenth year of commercial operation.	(7-g)	this was covered in Batch 2
(s)	**Other information** reasonably required by the commission.		