BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Snowshoe BESS, LLC for a Site Permit for the up to 150 MW Snowshoe Energy Storage Project in Olmsted County, Minnesota

MPUC Docket No. IP-7138/ESS-24-279
OAH Docket No. 21-2500-40522

DIRECT TESTIMONY OF MARY MATZE
ON BEHALF OF SNOWSHOE BESS, LLC

April 15, 2025

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name, employer, and business address.

A. My name is Mary Matze. I am a Manager of Development at Spearmint Renewable Development Company, LLC (Spearmint Energy), my business address is 7480 Flying Cloud Dr, Suite 425, Eden Prairie, MN 55344.

Q. Please briefly describe your educational background and professional experience.

A. I have a dual Masters degree in Urban and Regional Planning and Landscape Architecture from the University of Minnesota. I joined Spearmint Energy as a Senior Development Associate in 2024 and transitioned to Development Manager in March 2025. I have over 20 years of experience working with private and public sector stakeholders across the U.S. to complete and implement a wide range of initiatives.

Q. For whom are you testifying?

A. I am testifying on behalf of Snowshoe BESS, LLC (Snowshoe BESS or Applicant), a wholly owned indirect subsidiary of Spearmint Energy, in support of its Application for a Site Permit for the Snowshoe Energy Storage Project (Project).

Q. What is your role with respect to the Project?

A. I am the lead developer for the Project and am accountable for all aspects of Project development from site prospecting through commencement of construction. My duties include landowner and community engagement, overseeing environmental and engineering site surveys, permitting, power marketing, and managing the design and contracting of the Project.

Q. What is the relationship between Spearmint Energy and Snowshoe BESS?

A. Spearmint Energy is the owner of Snowshoe BESS, the entity seeking the site permit for the Project. Spearmint Energy is a leading energy company focused on

developing, owning, operating, and optimizing BESS infrastructure to reduce grid volatility and increase system resiliency. Spearmint Energy currently operates a 150MW/300 MWh BESS project in West Texas, and has more than 20 projects, totaling over 13GWh of capacity, under development in 10 states across the U.S. Snowshoe BESS will construct, own and operate the Project.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your Direct Testimony?

A. The purpose of my testimony is to: (1) provide an overview of the Project; (2) provide updates on the Project; (3) describe the Applicant's coordination and consultation with the Minnesota State Historic Preservation Office (SHPO); (4) describe the Applicant's coordination with additional stakeholders; (5) discuss Key Industry Safety Standards applicable to a battery energy storage system (BESS); and (6) provide limited comments on the proposed draft site permit provided with the Environmental Assessment (EA) for the Project

Q. What schedules are attached to your Direct Testimony?

A. The following schedules are attached to my Direct Testimony:

- **Schedule A**: Curriculum Vitae
- **Schedule B**: Confirmation of SHPO Consultation[1]
- **Schedule C**: Applicant and Minnesota Department of Agriculture (MDA) revisions to the Site Permit Application.[2]

[1] Confirmation of SHPO Consultation (Apr. 11, 2025) (eDocket No. 20254-217530-01).

[2] Site Permit Application (Oct. 7, 2024) (eDocket No. 202410-210785-02) (Application).

III. PROJECT OVERVIEW

Q. Please describe the Project.

A. The proposed Project is a BESS with a nominal power rating of up to 150 megawatts alternating current (MWac) and approximately 600 MW-hours (MWh) of energy capacity in Kalmar Township, Olmsted County, Minnesota. The Project will utilize lithium-ion or similar battery technology and provide up to 150 MWac to the electrical grid for up to four continuous hours as measured at the Point of Interconnection (POI). In addition to BESS enclosures, the Project will consist of inverters and transformers, electrical feeder lines, a tap line, a substation, storage and parking areas, access roads, fencing, and other minor equipment and subcomponents as are typical of a BESS. Snowshoe BESS may construct an operations and maintenance (O&M) facility at the site or may lease existing space nearby for an O&M facility.

The Project is proposed within approximately 27.2 acres of predominately agricultural land, which is all under lease agreements or access easement agreements with landowners (Project Area or Land Control Area). The Project is expected to occupy approximately 22.9 acres of the Project Area. The Project will interconnect to the existing Southern Minnesota Municipal Power Agency (SMMPA)-Maple Leaf Substation via a bi-directional 161 kilovolt (kV) tap line.

Q. How did you identify the project location?

A. Snowshoe BESS conducted a detailed analysis based on several factors, including renewable energy projects in the region, environmental constraints, land availability, and cost, to identify regions in Minnesota that were suitable for an energy storage facility to further state and national goals of supplying reliable energy to the grid. Snowshoe BESS also considered existing transmission interconnection feasibility as a factor in determining the Project's location. Four existing transmission lines ranging from 69 kV to 161 kV are located in the Project vicinity—all of which are associated with the SMMPA-Maple Leaf Substation

adjoining the western boundary of the Project Area. Four existing transmission lines ranging from 69 kV to 161 kV are located in the Project vicinity—all of which are associated with the SMMPA-Maple Leaf Substation adjoining the western boundary of the Project Area. Snowshoe BESS identified the SMMPA-Maple Leaf Substation as having available capacity and low interconnection costs. Snowshoe BESS then screened available land within the area of the proposed POI. Lands within the area of the POI were considered potentially suitable if they were: cleared and otherwise undeveloped; not currently encumbered by other easements (e.g., wind farms, pipelines); and contained minimal wetlands, streams, transmission lines, pipelines, roads, or other obstacles that would limit the buildable land or lead to irregularly shaped development areas. Snowshoe BESS also screened the areas for geotechnical risks, habitat for endangered species, proximity to culturally sensitive areas, other potential environmental risks such as pollutants, steep slopes, flood zones, current land use conflicts, and a clear and uncontested title. Following this screening, Snowshoe BESS approached landowners to negotiate a voluntary lease and easement.

The Project Area was chosen for its proximity to the POI, a supportive landowner, and limited competition with other potential renewable energy storage projects.

Q. Did you coordinate with local landowners, local, state, and federal regulatory stakeholders, and tribes?

A. Yes. As part of pre-Application efforts, Snowshoe BESS completed extensive engagement with local, state, and federal regulatory stakeholders to introduce the Project, request comments, and gain feedback. Snowshoe BESS also contacted the eleven recognized Tribal Nations in Minnesota for comments. Snowshoe BESS also met with state agencies, such as the Minnesota Department of Transportation (MNDOT). Snowshoe BESS has also coordinated with the Minnesota Department of Agriculture to develop appropriate agricultural impact mitigation measures for the Project.

IV. PROJECT UPDATES

Q. Have there been any updates to the Project since the Application was filed?

A. Yes. Since the Application was filed, Snowshoe BESS has completed the required consultation with SHPO. SHPO Consultation is addressed in Section V and **Schedule B** to my Direct Testimony. Snowshoe BESS also worked with MDA to revise sections of the Application detailing the activities and best management practices (BMPs) related to agriculture; these activities and BMPs are addressed in Section VII and **Schedule C** to my Direct Testimony.

V. COORDINATION WITH SHPO

Q. The Commission authorized Snowshoe BESS to initiate consultation with SHPO related to the Project and directed the Applicant to inform the Commission of the status of that consultation with pre-filed testimony. Are you aware of that authorization?

A. Yes. In this section of my Direct Testimony, I will provide an update regarding Snowshoe BESS's coordination with SHPO regarding the Project.

Q. Please describe the Applicants pre-Application coordination with SHPO regarding the Project.

A. As described in **Schedule B** of my Direct Testimony, on April 18, 2024, Snowshoe BESS initiated consultation with SHPO by submitting a letter describing the proposed Project and requesting comments. SHPO responded by letter on July 5, 2024 and recommended that a Phase I archaeological survey be completed.

Q. Has a cultural resource literature review or Phase I archaeological reconnaissance survey been performed or conducted for the Project?

A. Yes. Snowshoe BESS engaged Westwood Professional Services, Inc.(Westwood) to perform field surveys and a cultural resource literature review for the Project.

The associated Phase I Archaeological Reconnaissance Survey report was included as Appendix F of the Application, and submitted to SHPO for review.

Q. What were the results of the cultural resource literature review and Phase I archaeological reconnaissance survey?

A. The cultural resource literature review did not identify any National Register of Historic Places properties, previously recorded archaeological sites, or historic/architectural resources within the Project Area. No new or previously recorded archaeological, architectural, or historic sites were identified/reviewed during the Phase I archaeological reconnaissance survey.

Q. Do you have updates regarding SHPO coordination since the Application was filed?

A. Yes. On September 26, 2024, SHPO provided a letter confirming that it reviewed the Phase I Archaeological Reconnaissance Survey and concluded that "there are no properties listed in the National or State Registers of Historic Places and no known or suspected archaeological properties in the area that will be affected by [the Project]."[3] Snowshoe BESS informed the Commission of the status of SHPO consultation in a compliance filing on April 11, 2025. The compliance filing and September 26, 2024 SHPO letter are attached to my Direct Testimony as **Schedule B**.

VI. SAFETY STANDARDS

Q. Has Snowshoe BESS incorporated safety precautions into the preliminary design of the Project?

A. Yes. In this section of my Direct Testimony, I will describe the key safety issues taken into consideration in designing the Project. Safety will be Snowshoe BESS's foremost principle during construction and operation of the Project. In addition to

[3] Confirmation of SHPO Consultation (Apr. 11, 2025) (eDocket No. 20254-217530-01).

selecting safe equipment, Snowshoe BESS has designed the Project in compliance with safety codes, regulations, and industry recommendations. Snowshoe BESS will adhere to advances in technology, applicable codes/standards, and developing emergency response procedures to further reduce the likelihood and impacts associated with fire and battery thermal runaway induced events.

Q. What is a battery thermal runaway event and what is the cause?

A. As described in Section 4.1.1 of the Application, thermal runaway occurs when a battery cell's internal temperature heats to a temperature above the design temperature to maintain a controlled reaction resulting in a cascading chemical reaction which produces additional heat. This typically leads to breakdown of internal separators within the battery cell which results in additional reactions. Due to the high temperatures involved, this can also result in fire in nearby combustible components.

Q. What mitigating measures has Snowshoe BESS proposed to minimize the likelihood and potential impacts of fire and battery thermal runaway induced events.

A. Snowshoe BESS has incorporated the following safety precautions into the preliminary design protocols of the Project.

- Facility and technology design that is compliant with NFPA 855 and UL 9540
- Physical spacing of equipment from fences and other equipment
- Site-wide 24/7 remote monitoring and on site technician
- Heating, ventilation, and air conditioning (HVAC) for thermal management;
- Heat and smoke detection;
- Automatic stop and response personnel alerts;
- Gas detection and ventilation systems;
- Deflagration venting; and
- System-specific training for local fire departments and emergency response teams.

Q. What type of lithium-ion battery will the Project utilize?

A. The Project is designed to accommodate a variety of Lithium Iron Phosphate (LFP) battery technologies. Snowshoe BESS intends to use LFP batteries due partially to the improved safety profile when compared to nickel manganese cobalt oxide (NMC) batteries. LFP batteries are more stable than NMC and have a lower risk of thermal runaway.

VII. COORDINATION WITH ADDITIONAL STAKEHOLDERS

Q. Has Snowshoe BESS conducted additional consultation with MDA?

A. Yes. In this section of my Direct Testimony, I will provide an update regarding Snowshoe BESS's coordination with MDA regarding the Project. Since the filing of the Application, Snowshoe BESS has coordinated with the MDA to discuss the Project and its potential impacts to agricultural land that may need to be addressed by mitigation or management measures. The Project is the first stand-alone BESS to come before the Commission; Snowshoe BESS continues to consult with MDA to develop an appropriate plan to address potential impacts to agricultural land resulting from construction, operation, and decommissioning of the Project.

Q. Has a plan to mitigate or manage the Project's potential impacts to agricultural land been developed?

A. Yes. Snowshoe BESS, in its Application, developed a preliminary list of pre-construction, construction, and post-construction activities and best management practices to preserve and protect agricultural resources should the site be returned to agricultural uses when the Project is decommissioned. Snowshoe BESS worked with MDA to revise sections of the Application detailing the activities and BMPs related to agriculture (i.e., Sections 4.3, 5.3.1, and 5.3.1.1 of the Application) to more clearly and detail those pre-construction, construction, and operations activities and BMPs that will be followed by Snowshoe BESS to protect the agricultural resource to the extent practicable. These revised sections Application are included as **Schedule C** to my Direct Testimony. The revised Application

sections included in **Schedule C** will be implemented by Snowshoe BESS during pre-construction, construction, operation, and decommissioning to reduce and mitigate impacts from soil disturbances to the extent practicable. Section 4.3 of the Draft Site Permit requires Snowshoe BESS to comply with the construction practices, operation and maintenance practices, and material specifications described in the permitting record for this Project unless this site permit establishes a different requirement. Accordingly, the activities and BMPs listed in **Schedule C** to this testimony must be followed to ensure compliance with the site permit upon issuance. MDA has indicated it is comfortable with Snowshoe BESS proceeding with its commitments outlined in **Schedule C**, without a need for a separate standalone Agricultural Impact Mitigation Plan (AIMP).

VIII. DRAFT SITE PERMIT

Q. Have you reviewed the Environmental Assessment (EA) filed by the Department of Commerce Energy Environmental Review and Analysis (EERA) on April 9, 2025?

A. Yes. I have reviewed the EA, including the Draft Site Permit (included as Appendix D).

Q. Do you have any comments on the draft site permit that was attached to the EA?

A. Yes. Snowshoe BESS appreciates EERA's thorough review and analysis of the Project, and my limited comments are provided in this section.

Q. Do you have any comments regarding Draft Site Permit Section 3?

A. Yes, Section 3 of the Draft Site Permit allows the Permittee to make minor adjustments to the layout of Project as designed and evaluated during the permitting process. Snowshoe BESS proposes changes to Section 3 of the Draft Site Permit to ensure that future augmentation of the Project, as depicted on the

Site Plan, is authorized by the site permit without a need for Snowshoe BESS to return to the Commission for a permit amendment or minor alteration:

Section 3 Designated Site

The site designated by the Commission for the Project is depicted on the site maps attached to this site permit (Designated Site). The site maps show the approximate location of the energy storage system, including future augmentation units, and associated facilities within the Designated Site and identify a layout that seeks to minimize the overall potential human and environmental impacts of the Project, as they were evaluated in the permitting process.

The Designated Site serves to provide the Permittee with the flexibility to augment the Project in the future to maintain Project capacity, make minor adjustments to the layout to accommodate requests by landowners, local government units, federal and state agency requirements, and unforeseen conditions encountered during the detailed engineering and design process. Any modification to the location of a ~~photovoltaic tracker row~~ energy storage systems or associated facility shall be done in such a manner as to have human and environmental impacts that are comparable to those associated with the layouts on the maps attached to this site permit. The Permittee shall identify any modifications in the Site Plan pursuant to Section 8.3.

Q. Section 4.3.4 of the EA and Draft Site Permit Special Condition Section 5.5 both require Snowshoe BESS to prepare an agricultural impact mitigation plan (AIMP) that details methods to minimize soil compaction, preserve topsoil, and establish and maintain appropriate vegetation to ensure the project is designed, constructed, operated and ultimately restored in a manner that would preserve soils to allow for the land to be returned to agricultural use. What is your response?

A. As noted in my Direct Testimony, Snowshoe BESS has coordinated with MDA to revise applicable sections of the Application to outline mitigation or management measures that will be followed by Snowshoe BESS to address the Project's potential impacts to agricultural land. MDA has indicated that a separate, standalone AIMP is not necessary for the Project. Accordingly, Snowshoe BESS proposes the following edits to Section 5.5 of the Draft Site Permit:

> **5.5 Agricultural Impact Mitigation Plan**
>
> The Permittee shall develop appropriate agricultural impact minimization and mitigation measures ~~an agricultural impact mitigation plan (AIMP),~~ in coordination with the Minnesota Department of Agriculture (MDA), to be followed by the Permittee during construction, operation, and decommissioning of the Project. ~~The Permittee shall provide landowners within the Designated Site a copy of the AIMP. The Permittee shall file with the Commission the AIMP and an affidavit of the AIMP distribution to landowners at least 14 days prior to the preconstruction meeting.~~

Q. Do you have any comments regarding Draft Site Permit Section 4.3.12?

A. Yes, Section 4.3.12 inadvertently mentions photovoltaic trackers, which are associated with a solar facility. Snowshoe BESS does not propose to construct any solar facility or photovoltaic trackers. Accordingly, any reference to photovoltaic trackers should be deleted from the Draft Site Permit:

4.3.12 Public Lands

In no case shall the energy storage system and associated facilities including foundations, access roads, underground cable, and transformers, be located in the public lands identified in Minn. R. 7850.4400, subp. 1, or in federal waterfowl production areas. ~~Photovoltaic tracker rows~~ energy storage systems and associated facilities shall not be located in the public lands identified in Minn. R. 7850.4400, subp. 3, unless there is no feasible and prudent alternative.

Q. Do you have any comments regarding Draft Site Permit Special Condition Section 5.8 (State Historic Preservation Office Recommendations)?

A. Yes. As described in Section V of my Direct Testimony, on April 11, 2025, Snowshoe BESS filed documentation confirming that SHPO reviewed the Phase I Archaeological Survey report prepared for the Project and did not recommend further surveys or mitigation measures related to the Project. Snowshoe BESS proposes that Special Condition Section 5.8 be removed from the Draft Site Permit.

Q. Do you have any comments regarding Draft Site Permit Special Condition Section 5.9 (Security Fencing)?

A. Yes. Snowshoe BESS generally does not oppose Special Condition Section 5.9 of the Draft Site Permit. The Minnesota Department of Natural Resources (DNR) submitted comments on the Application on December 23, 2024. DNR recommended that security fencing for the Project reach a minimum height of 10 feet to prevent white-tailed deer and other large wildlife from entering the facility and advised against the use of barbed wire due to potential entanglement and injury concerns to wildlife. Snowshoe BESS does not oppose DNR's recommendation that the fencing for the Project reach a minimum of 10 feet. However, Snowshoe BESS remains concerned about safety and unauthorized access by members of the public. Therefore, Snowshoe BESS proposes to top the

security fencing by one to two feet of barbed wire to prevent unauthorized individuals from entering without the appropriate personal protective equipment. Accordingly, Snowshoe BESS proposes to revise Draft Site Permit Special Condition Section 5.9 as follows:

> **5.9 Security Fencing**
>
> The Permittee shall design the security fence surrounding the energy storage system to minimize the visual impact of the Project while maintaining compliance with the National Electric Safety Code. ~~The Permittee shall develop a final fence plan for the specific site in coordination with the DNR. The final fence plan shall be submitted to the Commission as part of the Site Plan pursuant to Section 8.3.~~ The Project will be enclosed by a chain link fenced topped by barbed wire, which shall reach a minimum of 10 feet.

IX. CONCLUSION

Q. Does this conclude your Direct Testimony?

A. Yes.

MARY MATZE

Development Manager

EDUCATION

Masters, Urban and Regional Planning, Humphrey School of Regional Affairs, University of Minnesota

Masters, Landscape Architecture, College of Design,University of Minnesota

AWARDS

President's Award

Outstanding leadership and dedication to Minnesota growth, Economic Development Association of Minnesota (2021)

CURRENT ROLE

Development Manager, Spearmint Energy
January 2024-present

Ms. Matze brings over 20 years of experience working with both private and public sctor stakeholders accross the U.S. At Spearmint Energy Ms. Matze is responsible for development of utility-scale Battery Energy Storage System (BESS) projects in multiple transmission regions managed by Midcontinent Independent System Operator (MISO) and Energy Reliability Council of Texas (ERCOT). In this role, she is responsible for moving projects from early stage development to construction including overseeing project due dilligence studies and ensuring compliance with both interconnection agencies andfederal, state, and local permit requirements. For projects in earlier stages of develpment, she is responsible for leading projects through site permitting processes, including:

- Negotiation and execution of development agreements
- Managing relationships with landowners, project stakeholders, and local communities
- Leading coordination and execution of project plans, studies, and evaluation with environmental, engineering, and pre-construction teams
- Managing real estate title work
- Developing project budgets
- Negotiating agreements with landowners and affected stakeholders.

ADDITIONAL WORK EXPERIENCE

Hennepin County Economic Development
Business Programs Portfolio Manager
September, 2018-January, 2024

Landform Professional Services
Development Manager, Planner III
April, 2014-September, 2018

Fredrikson

Fredrikson & Byron, P.A.
Attorneys and Advisors

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April 11, 2025

VIA E-FILING

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

Re: In the Matter of the Application of Snowshoe BESS, LLC for a Site Permit for the up to 150 MW Snowshoe Energy Storage Project in Olmsted County, Minnesota.

Docket No. IP-7138/ESS-24-279

Dear Mr. Seuffert:

Snowshoe BESS, LLC (Snowshoe BESS) respectfully submits this filing in response to the Public Utilities Commission's (Commission) letter dated March 19, 2025 authorizing Snowshoe BESS to initiate consultation with the Minnesota State Historic Preservation Office (SHPO) pursuant to Minn. Stat. § 138.665. As documented in this letter, the required consultation with SHPO was completed and the associated reports were filed with the Site Permit Application (Application) for the Snowshoe Energy Storage Project in Kalmar Township, Olmsted County, Minnesota (Project).[1] Based on extensive field investigations conducted in the Project area, the report determined and SHPO agreed, there are no properties listed in the National or State Registers of Historic Places in the Project area and there are no known or suspected archaeological properties in the area that will be affected by the Project.

On April 18, 2024, Snowshoe BESS initiated consultation with SHPO by submitting a letter describing the proposed Project and requesting comments. SHPO responded by letter on July 5, 2024 and recommended that a Phase I archaeological survey be completed.[2]

As described in Section 5.4.2 and Appendix F of the Application, Snowshoe BESS engaged Westwood Professional Services, Inc. (Westwood) to perform a Phase I archeological survey for

[1] *See* Application, Appendix B-2, and Appendix F (Oct. 7, 2024) (eDocket Nos. 202410-210785-02, 202410-210785-05, and 202410-210785-09).

[2] *See* SHPO Letter dated July 5, 2024 at Appendix B-2; *see also* Application at Section 5.4.2.

the Project and prepare a report.[3] A cultural resource literature review was undertaken prior to the Phase I archeological survey to identify known cultural resources documented in or within a one-mile buffer of the Project area boundary. The literature review did not identify any previously recorded archaeological sites within the Project area or the one-mile buffer, or historic/architectural resources within the Project area. Three previously inventoried architectural resources were identified within the one-mile buffer (SHPO Inventory Nos. OL-ROD-00001, XX-ROD-00016, and OL-KAL-00022), none of which have been evaluated for listing in the National Register of Historic Places. The literature review did not identify any National Register of Historic Places properties within the Project area or one-mile buffer.

As detailed in the *Phase I Archaeological Reconnaissance Survey*, archaeological field surveys were conducted on April 24, 2024. Field survey methods consisted of visual pedestrian reconnaissance conducted at 10- to 15-meter transect intervals across the entire 27.2-acre Project area.[4] No new or previously recorded archaeological, architectural, or historic sites were identified/reviewed during the survey. On September 26, 2024, SHPO confirmed it reviewed the *Phase I Archaeological Reconnaissance Survey* and agreed that there are no properties listed in the National or State Registers of Historic Places and no known or suspected archaeological properties in the area that will be affected by the Project (**Attachment 1**).

This filing has been e-filed through www.edocket.state.mn.us.

Please let me know if you have any questions regarding this filing.

Sincerely,

FREDRIKSON & BYRON, P.A.

/s/ Jeremy P. Duehr

Jeremy P. Duehr
Direct Dial: 612.492.7413
Email: jduehr@fredlaw.com

JPD

[3] The *Phase I Archaeological Reconnaissance Survey*, dated August 28, 2024, prepared by Westwood was submitted to SHPO for review on August 28, 2024. The *Phase I Archaeological Reconnaissance Survey* is also included in the Application as Appendix F.

[4] The Project design is expected to occupy approximately 22.9-acres of the Project area (described in the Application as the "Preliminary Development Area").

DEPARTMENT OF ADMINISTRATION
STATE HISTORIC PRESERVATION OFFICE

September 26, 2024

Ryan Steeves
Principal Investigator
Westwood
ryan.steeves@westwoodps.com

RE: File R0046088.00
Snowshoe BESS Project
T107 R15 S35, Kalmar Twp, Olmsted County
SHPO Number: 2024-1929

Dear Ryan Steeves:

Thank you for the opportunity to comment on the above referenced project. We understand that this project will require a Minnesota Public Utilities Commission site permit. Therefore, the submitted information has been reviewed pursuant to the responsibilities given the State Historic Preservation Office by the Minnesota Historic Sites Act (138.665-666). If this project will be located on non-federal public land, the project will also be subject to review under the Minnesota Field Archaeology Act (138.40).

As stated in your correspondence, the proposed project includes the installation of battery storage containers, construction of a substation, installation of an overhead tap line from the project area to an existing substation, access roads, fencing, and underground electrical connections.

We have reviewed the cultural resources survey report, *Phase I Archaeological Reconnaissance Survey for the Proposed Snowshoe BESS Project, Olmsted, County, Minnesota* (May 13, 2024, Westwood) that was prepared for this project. Based on the results of the survey, we conclude that there are **no properties** listed in the National or State Registers of Historic Places and no known or suspected archaeological properties in the area that will be affected by this project.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR § 800. If this project is considered for federal financial assistance, or requires a federal permit or license, then review and consultation with our office will need to be initiated by the lead federal agency. Be advised that comments and recommendations provided by our office for this state-level review may differ from findings and determinations made by the federal agency as part of review and consultation under Section 106.

If you have any questions regarding our review of this project, please contact Kelly Gragg-Johnson, Environmental Review Program Specialist, at 651-201-3285 or kelly.graggjohnson@state.mn.us.

Sincerely,

Amy Spong
Deputy State Historic Preservation Officer

Table 4.2-3: Estimated Project Facility Acreages in Preliminary Development Area

Preliminary Development Area*	Acres
Access Roads	0.7†
Basin Areas	2.02
BESS Pads	1.62
Laydown Yard	2.23
O&M facility	0.11
Project Substation Area	1.43
BESS Area (Fenced Area) Gravel Pad	4.38
Area Inside Preliminary Development Area not Housing Infrastructure	11.02
Preliminary Development Area Total	**22.95**

* The Preliminary Development Area includes the permanent development area that is hosting BESS equipment, as well as the access road within the lease area. The Project will also utilize either an existing access road owned by SMMPA or a newly constructed access road parallel to the existing SMMPA access road. The Preliminary Development Area, based on the Project's preliminary design, includes access roads, buried electrical feeder lines, O&M facility, Project substation, BESS, stormwater basins, and a temporary laydown yard.

† The approximate acreage of access roads under either the preferred existing or alternative access road scenario. *Note: some addends may not sum due to rounding.*

4.3 Construction, Commissioning, Restoration, Operation and Maintenance

A variety of activities must be completed to carry the Project through construction and into operation. Below is a preliminary list of activities necessary to develop the Project. Pre-construction activities will be completed between submittal of this Application and the start of construction. Pre-construction, construction, and post-construction activities for the Project will utilize best current practices which typically include:

Pre-construction

- Geotechnical investigation;
- Underground utility identification and location;
- Surface and subsurface agricultural drainage systems identification and location;
- Initiate soil/vegetation stabilization in areas with no disturbance;
- Design Project substation;
- Design BESS facility;
- Design access roads and electrical systems; and
- Procure necessary facility components (inverters, BESS, and transformers).

Construction

- Site preparation, grubbing, and grading;
- Protect and/or reroute identified surface and subsurface agricultural drainage systems;
- Maintain perennial vegetation established during preconstruction activities;
- Establish temporary or permanent (seasonally dependent) vegetation in disturbed areas, as practical;

- Construct laydown area and set up temporary job site trailers;
- Construct stormwater basins;
- Civil construction of access roads;
- Construct fencing;
- Install below-ground electrical systems including conduit, electrical feeder cables, other electrical cables, and communications cabling;
- Install electrical enclosure/inverter;
- Install BESS enclosures and batteries;
- Construct Project substation;
- Construct Project Line Tap; and
- Construct O&M facility (if utilized).

Post-construction

- Restore disturbed areas not intended for permanent above-ground facilities;
- Monitor protected/rerouted identified agricultural drainage systems for adequate function;
- Maintain and restore established vegetation;
- Replace temporary vegetation with perennial vegetation as applicable;
- Conduct training as outlined in ERP with local first responders;
- Energize and test facility; and
- Begin commercial operation.

4.3.1 Construction and Construction Management

Construction will begin after the necessary permits are obtained and the electrical interconnection process is finalized with MISO. Project construction will begin with workforce mobilization and the initial site preparation work, including establishment of staging/laydown area, grading, and vegetation removal. Preliminary engineering analysis indicates that approximately 17 acres of the Preliminary Development Area will require grading. Approximately 109,000 cubic yards of cut and 89,000 cubic yards of fill is estimated for the Project. Final cut and fill volume estimates for the access roads, stormwater management ponds, BESS pad, and other Project facilities will be established with the final site design.

In this first phase of construction, general site improvements will be made, such as access road improvements and preparation of the staging/laydown area. A temporary staging/laydown area will be located in the northwestern portion of the Project Area. The staging/laydown area will be used for storage of construction materials and shipped equipment containers, receiving construction deliveries, and temporary parking for Project-related vehicles. Temporary construction offices will also be located on-site during construction.

The BESS (battery enclosures, PCS, and electrical systems) will be installed next in conjunction with internal drive lanes. These drive lanes are differentiated from other on-site access roads in that there will not be a separate road within the fenced area. That area will be graveled in its entirety with no specifically designed road profile or area, so traffic will move in lanes between

Effects on temporary or permanent housing are anticipated to be negligible. During construction, out-of-town laborers will likely utilize some of the previously mentioned lodging facilities in the surrounding area. More permanent housing will be required for the one to two long-term personnel that will manage the Project on a regular basis. The residence and temporary housing statistics suggest the local area has ample amounts of accommodations for influx of construction workers, if needed and Snowshoe BESS anticipates that sufficient temporary lodging and permanent housing will be available within Olmsted County to accommodate construction laborers and long-term personnel.

Snowshoe BESS will pay wages, and purchase goods and services from local businesses and landowners during the Project's construction and operation. While the project does not create tax revenue through a production tax, the Project is estimated to provide property tax payments to Olmsted County of approximately $17,745 annually over the 20-year lease term for a total of approximately $355,000. Additionally, Kalmar Township is estimated to receive approximately $944 annually over the 20-year lease term for a total of approximately $19,000. In addition, lease payments paid to the landowners will offset potential financial losses associated with removing a portion of their land from agricultural production.

The socioeconomic impacts associated with the Project will be positive; therefore, no mitigative measures are proposed.

5.3 Land-Based Economies

5.3.1 Agriculture

According to the USDA's 2022 Census of Agriculture, approximately 308,004 acres of land in Olmsted County is comprised of farms, including 258,221 acres of cropland (83.8), 12,289 acres of pastureland (4.0%), and 17,829 acres of woodland. A total of 1,102 individual farms are located in Olmsted County, with the average farm size at 279 acres.

Olmsted County ranks Sixth in the state for total agricultural production and fifth in crop production. In 2022, the top three crops (in acres) in Olmsted County included corn (for grain), soybeans (for beans), and forage (hay and haylage). Cattle and calves topped the list of livestock inventory, followed by hogs and pigs, and cattle and calves. The total market value of agricultural products sold in Olmsted County was approximately $337 million, including $226 million for crops and $111 million for livestock, poultry, and products.[66]

~~No drain tile was identified from public data or landowner interviews, making it unlikely that any drain tile exists in the Project Area. Any drain tile that is discovered by Snowshoe BESS will~~

[66] ~~USDA. 2022. Census of Agriculture. Olmsted County Profile (available at https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/Minnesota/cp27109.pdf).~~

~~be evaluated and recorded accordingly.~~ When drained, up to 13.5 acres of prime farmland exists on within the Project Area.

~~5.3.1.1 Impacts and Mitigative Measures~~

The Project ~~will impact approximately 23 acres of agricultural land within the Preliminary Development Area (**Figure 2**) during its operating life and~~ will not result in a significant impact to land-based economies in the Project vicinity as Preliminary Development Area occupies less than 0.01% of the cropland in Olmsted County (258,221 acres).

5.3.1.1 Impacts and Mitigative Measures

Impacts:

- The Project will impact approximately 23 acres of agricultural land within the Preliminary Development Area (**Figure 2**) during its operating life.
- Agricultural production would continue in the surrounding areas during construction and operation of the Project.
- The Project will not impact livestock operations.
- No drain tile was identified from public data or landowner interviews, making it unlikely that any drain tile exists in the Project Area.
- Impacts to soils will occur during both the construction and, to a much lesser degree, operational stages of the Project.
- Grading impacts to soils will primarily be from construction of foundations for the Project substation, BESS, O&M facility, laydown yard, basin areas, and access roads potentially leading to some degree of compaction.
- Some soil compaction may result from construction activities.

Mitigative Measures:

- Payments will be made by Snowshoe BESS to the owners of the land used for the Project, as provided in the applicable lease and easement agreements. These payments are intended to replace the revenue that would have been generated if the landowner continued agricultural production.
- ~~No~~ Any drain tile ~~or drainage infrastructure are located within the Project Area~~that is discovered by Snowshoe BESS will be evaluated and recorded accordingly. The Applicant is committed to preserving existing soil drainage conditions as much as possible to minimize impacts or damage to unidentified drain tile lines and/or drain tile systems.
- Land disturbed during construction will be repaired and restored to pre-construction contours and characteristics to the extent practicable. Restoration will allow the Project's land surfaces to drain properly, blend with the natural terrain, re-vegetate, and minimize erosion.

- Measures to mitigate topsoil removal include limiting removal to areas designated for grading and construction of roads and permanent structures.
- Impacts to ~~soils~~soil erosion will be mitigated by incorporating sediment and erosion control measures during and following construction.
  - Construction activities will incorporate erosion and sediment control BMPs outlined in the SWPPP, which will be specifically prepared for the Project.
  - The SWPPP will include a discussion on topsoil and compaction management.
- During the operating life of the Project, erosion control will be primarily accomplished through ~~establishment~~ :
  - Establishment of a perennial vegetative cover in non-gravel areas of the Project Development Area not returned to agricultural use~~, installation~~ .
  - Installation of gravel roads with culverts (as necessary) to redirect concentrated surface water ~~and management~~ .
  - Management of surface water runoff in on-site ponds.
- Soil compaction will be mitigated by use of low-impact equipment and methods, regrading, and tilling these areas following construction.

These actions will preserve the soils in place and will likely result in less soil erosion than is typical with row crop agricultural activities. These actions will also mitigate soil compaction to the extent practicable. Snowshoe BESS will implement BMPs during construction and operation to reduce and mitigate any potential impacts from soil disturbances. Snowshoe BESS will implement vegetation management during construction and post-construction operations in accordance with BMPs and measures listed in the VMP (**Appendix C**). Should the site be decommissioned at the end of commercial operations, Snowshoe BESS will follow the measures outlined in Section 4.4, Decommissioning and Repowering.

5.3.2 Forestry

Economically important forestry resources are not found in this region of Minnesota. The Preliminary Development Area is located solely on agricultural land (**Figures 2** and **5)** and there are no resources within the Project Area that are considered to be forestry resources for commercial use. The primary tree cover along the southern boundary of the Project Area is comprised of buffers and wind breaks to the railroad and U.S. Highway 14 and will not be disturbed as part of Project construction or operations.

5.3.2.1 Impacts and Mitigative Measures

No impacts to economically important forestry resources will occur from construction or operation of the Project; therefore, no mitigation measures are proposed.

5.3.3 Mining