**STATE OF MINNESOTA**
**BEFORE THE**
**PUBLIC UTILITIES COMMISSION**

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|---|---|
| Katie Sieben | Chair |
| Joseph K. Sullivan | Vice-Chair |
| Audrey Partridge | Commissioner |
| Hwikwon Ham | Commissioner |
| John Tuma | Commissioner |

***In the Matter of the Application of Summit Lake Solar, LLC for an up to 200 MW Summit Lake Solar Energy Generating System Site Permit for the Summit Lake Solar Project in Nobles County, Minnesota***

***MPUC Docket Number IP-7150/GS-25-89***

***In the Matter of the Application of Summit Lake Solar, LLC for an up to 200 MW / 800-MWh Battery Energy Storage System Site Permit for the Summit Lake Solar Storage Project in Nobles County, Minnesota***

***MPUC Docket Number IP-7153/ESS-25-88***

**JOINT SITE PERMITS**
**APPLICATION AMENDMENT**

# *Joint Site Permits Application Amendment to the Minnesota Public Utilities Commission for: Summit Lake Solar Energy Generating System and Battery Energy Storage System*

**Summit Lake Solar, LLC**
**Summit Lake Storage, LLC**
**Nobles County, Minnesota**

**Solar Facility Docket No. IP-7153/GS-25-89**
**BESS Facility Docket No. IP-7153/ESS-25-88**

**December 2025**

**8400 Normandale Lake Blvd., Suite 1200**
**Bloomington, MN 55437**

# 1.0 Introduction

On February 21, 2025, Summit Lake Solar, LLC (Summit Lake Solar), a wholly owned subsidiary of Geronimo Power, LLC (Geronimo Power) (formerly National Grid Renewables, LLC), submitted a Joint Application for Site Permits[1] to the Minnesota Public Utilities Commission (PUC or Commission) to construct and operate the Summit Lake Solar Facility (Solar Facility) and Battery Energy Storage System (BESS), collectively the Solar Facility and BESS are referred to as the Project, in Summit Lake and Elk Townships, Nobles County, Minnesota. Concurrently with the submittal of this amendment to the original Joint Site Permits Application (Amendment), Summit Lake Solar requests the Commission change the name of the applicant for the BESS to Summit Lake Storage, LLC (Summit Lake Storage), also a wholly owned subsidiary of Geronimo Power and an affiliate of Summit Lake Solar. Together, Summit Lake Solar and Summit Lake Storage are referred to herein as the Applicants. The Solar Facility is proposed as a solar energy conversion facility with an up to 200-megawatt (MW) alternating current (AC) nameplate capacity. The BESS will consist of a stand-alone structure with an up to 200 MW / 800-megawatt hour (MWh) nameplate capacity and ancillary support infrastructure.

As discussed in the Joint Site Permits Application (Joint Application), the Applicants have obtained leases and purchase options for 1,989.6 acres of privately-owned land (Land Control Area). The Joint Application noted that approximately 1,482 acres would be needed to construct and operate the preliminary Project design (i.e., the Preliminary Development Area). The Solar Facility will include installation and operation of blocks of photovoltaic solar arrays on a tracking rack system, inverters, transformers, an electrical collection and communication system, a new Project Substation, an operations and maintenance (O&M) building, and a 345 kilovolt (kV) generation tie (gen-tie) transmission line. The gen-tie line will connect the Solar Facility to the Point of Interconnection (POI) for the Project, the existing Nobles Substation which is owned and operated by Xcel Energy. The BESS includes individual BESS modules that consist of multiple batteries installed in purpose-built enclosures. The BESS will function independently from the Solar Facility but will share the Project Substation, gen-tie line, and POI.

The Applicants are working to secure one or more Power Purchase Agreements, Build Transfer Agreements, Development Transfer Agreements, or other enforceable offtake agreement to sell the electricity, Renewable Energy Certificates, and capacity generated or stored by the Solar Facility and BESS. The power generated by the Solar Facility or stored by the BESS will be offered to wholesale customers, including Minnesota utilities and cooperatives that have identified a need for additional low-cost renewable energy and capacity, and corporate and industrial customers that have set clean energy goals. The Applicants plan to construct both the Solar Facility and the BESS on a similar construction schedule and begin commercial operation of the entire Project in the fourth quarter of 2028, following the completion of construction and testing.

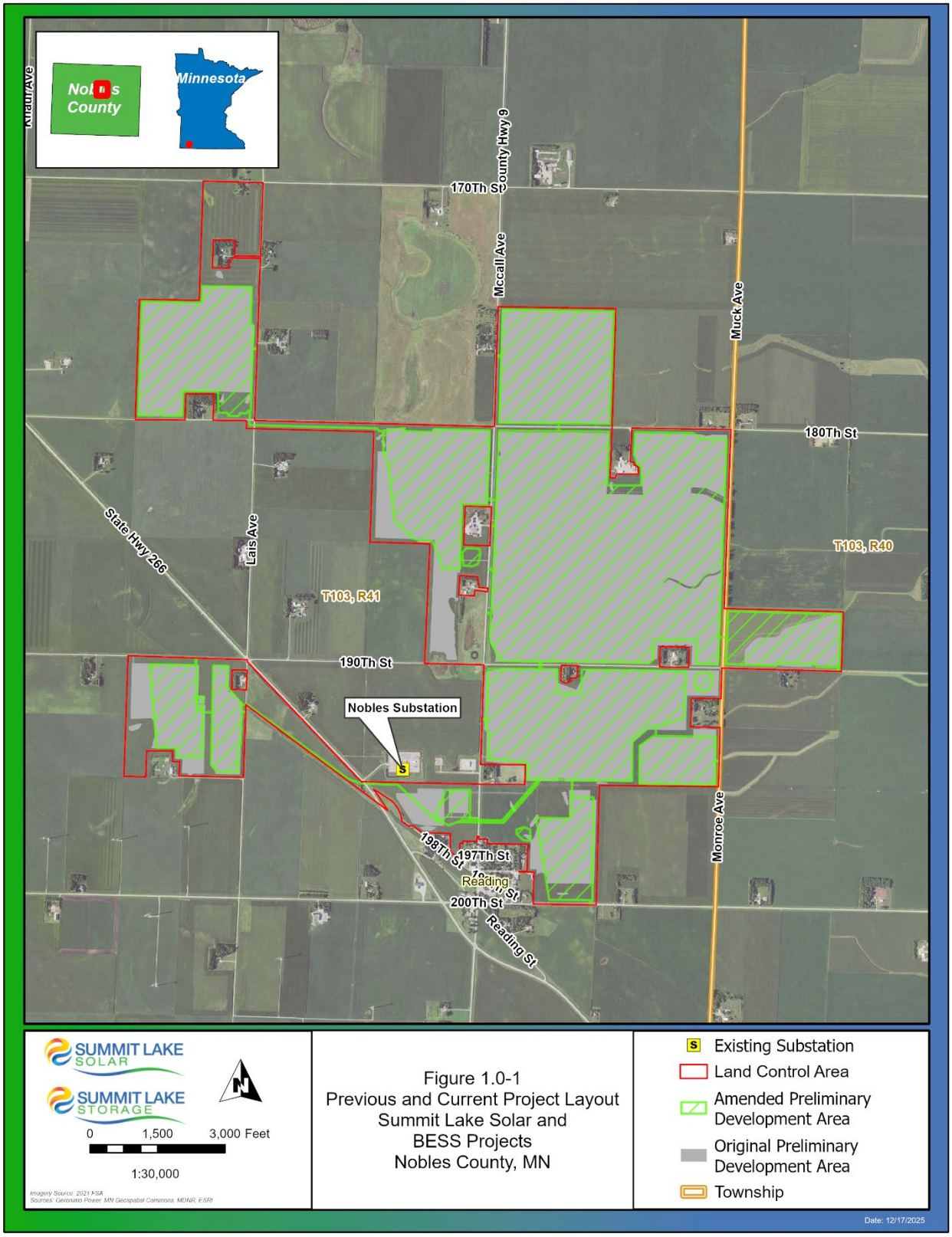
Summit Lake Solar prepared the Joint Application based on a preliminary Project layout. As discussed in Section 6.3.1 of the Joint Application, Nobles County identified county-owned drain tile throughout portions of the Land Control Area. After filing the Joint Application, Summit Lake Solar continued coordination with Nobles County to conduct a feasibility study evaluating options to re-route existing public drain tile maintained by Nobles County (County Drain Tile) and develop appropriate setbacks to County Drain Tile that would allow the county continued access for maintenance and repairs during the

[1] See Joint Site Permits Application to the Minnesota Public Utilities Commission for: Summit Lake Solar Energy Conversion Facility and Battery Energy Storage System, IP-7153/GS-25-89 and IP-7153/ESS-25-88, Document ID 20252-215674-02.

operation of the Project. Summit Lake Solar also coordinated with Northern States Power Company, doing business as Xcel Energy, and determined several existing collection cables from Xcel Energy's Nobles Wind Farm are located in an area previously considered as buildable area for the Project. Moreover, during the environmental scoping meetings and comment period for the Project, several commenters expressed concern about the proximity of the BESS to the city of Reading. Similarly, some landowners expressed concern about the proximity of the Solar Facility to residences (non-participating residences in particular). The Applicants have continued stakeholder outreach since the public scoping meeting in May 2025 to address stakeholder concerns and have increased setbacks from non-participating residences and identified locations where vegetative screening will be added to the final Project design. As a result of the County Drain Tile study, coordination with Xcel Energy, coordination with Nobles County and the townships in which the Project will be located, coordination with participating and adjacent landowners, public comments received during scoping, as well as additional feedback provided through ongoing stakeholder engagement, the Applicants updated the preliminary Project design as described in this Amendment.

The Applicants respectfully submit this Amendment to the Commission to document changes to the preliminary Project design. A summary of the Project design changes is provided in Section 2.0, and an updated assessment of Project impacts is provided in Section 3.0. The Applicants are not requesting any changes to the Land Control Area with this Amendment. The Preliminary Development Area for the Project (inclusive of the land to be used for the Solar Facility and BESS) has changed and now totals approximately 1,416 acres within the Land Control Area. The updated Preliminary Development Area is about 65 acres smaller than the preliminary Project design described in the Joint Application. This Amendment does not include any changes to the Solar Facility or BESS nameplate capacity, POI location, Project schedule, costs, or planned operations.

Figure 1.0-1 shows a comparison of the updated Preliminary Development Area and the Preliminary Development Area described in the Joint Application.


Nobles County
Minnesota
Klaudt Ave
County Hwy 9
170Th St
Mccall Ave
Muck Ave
180Th St
State Hwy 266
Lais Ave
T103, R40
T103, R41
190Th St
Nobles Substation
198Th St
197Th St
Reading St
200Th St
Monroe Ave
SUMMIT LAKE SOLAR
SUMMIT LAKE STORAGE
0
1,500
3,000 Feet
1:30,000
Imagery Source: 2021 FSA
Sources: Geronimo Power, MN Geospatial Commons, MDNR, ESRI
Figure 1.0-1
Previous and Current Project Layout
Summit Lake Solar and
BESS Projects
Nobles County, MN
Existing Substation
Land Control Area
Amended Preliminary Development Area
Original Preliminary Development Area
Township
Date: 12/17/2025

# 2.0 Description of the Project Changes

This Amendment includes the following changes to the preliminary Project design:

The Solar Facility layout has been updated, including rearrangement of blocks of solar arrays, inverters, the Project Substation, security fencing, access roads, and collection and communication lines to avoid and/or minimize impacts on County Drain Tile in the Land Control Area and residential homes near the Project. Solar Facility setbacks from non-participating property lines, residences, public roadways, and County Drain Tile have been increased. In addition, the following changes have been incorporated into the preliminary Project design:

- the BESS has been moved north-northeast to reduce noise impacts on sensitive receptors, increase the distance between the BESS and the city of Reading, and to avoid collection lines associated with the Nobles County Wind Farm;
- the Preliminary Development Area has decreased by approximately 65 acres;
- the O&M facility has been moved from inside the BESS facility fenceline to adjacent to the Project Substation;
- laydown yards have been relocated and consolidated to four new yards impacting fewer acres, although the final number of laydown yards may change based on the needs of the contractor chosen to construct the Project;
- the length of the gen-tie line has decreased by approximately 108 feet; and
- stormwater ponds have been relocated and consolidated into 13 larger stormwater ponds, resulting in increased acreage, provided the final number of stormwater ponds may change based on final design and compliance with applicable stormwater requirements.

The Applicants have identified locations where vegetative screening will be added to the final Project design to reduce aesthetic impacts and address concerns regarding snow drifting on public roadways. Vegetative screening areas are shown on the Landscape Plan provided in Attachment A and the visual renderings in Attachment B; vegetative screening will also be shown in the final engineering drawings for the Project.

The Applicants do not propose changes to the Solar Facility or BESS capacity, POI location, Project schedule or costs, or the planned commercial operation date. The Project layout presented herein is preliminary and subject to final micro-siting during the final engineering phase of the Project. Table 2.0-1 summarizes the Project changes and compares the Preliminary Development Area presented in the Joint Application to the amended design presented herein.

**Table 2.0-1 Estimated Solar Facility and BESS Acreages within the Preliminary Development Area - Comparison**

| Project Facilities | Joint Application Acres | Amended Design Acres | Difference Acres |
|---|---|---|---|
| Solar Arrays [1] | 1,131.2 | 1,056.6 | -74.6 |
| Inverters [2] | 0.8 | 0.8 | 0.0 |
| Access Roads [2] | 26.5 | 21.2 | -5.3 |
| Project Substation [2] | 5.1 | 5.1 | 0.0 |
| BESS [2] | 14.9 | 20.0 | +5.1 |
| O&M Building and Parking Lot [2] | 1.1 | 0.5 | -0.6 |
| Laydown Yards [3] | 5.4 | 2.7 | -2.7 |
| Collection and Communication Lines [4] | 1.4 | 1.4 | 0.0 |
| Stormwater Ponds | 17.2 | 28.3 | +11.1 |
| Remaining Area within the Fenceline of the Solar Facility | 278.0 | 279.9 | +1.9 |
| **PROJECT TOTAL** | **1,481.6** | **1,416.5** | **-65.1** |

[1] The impacts associated with solar panels in the design presented in the Joint Application include an approximate 17- to 25-foot-wide spacing between every row of panels. In the amended design, the row spacing has been reduced to 12 feet.

[2] These components of the Project design will result in impervious surfaces during operation of the Project. Impervious surfaces in the amended design total 47.6 acres, a decrease of 0.7 acre from what was presented in the Joint Application.

[3] The laydown yards are only used during construction and result in temporary impacts. The final number, size and arrangement of laydown yards will be determined by the chosen contractor to construct the Project, based on final design.

[4] Acreage provided for collection and communication lines includes only the areas where these facilities extend outside of the fence line of the Solar Facility.

As part of the Project layout redesign, the Applicants also increased setbacks from non-participating property lines and residences, public roadways, and County Drain Tile. Table 2.0-2 provides a comparison of the setbacks presented in the Joint Application and those in the amended Project design.

**Table 2.0-2 Nobles County Setbacks - Comparison**

| Feature | County Setback Requirement to Solar Facility (feet) | Preliminary Development Area (at closest in feet) [2] | | Solar Array (at closest in feet) | | BESS (at closest in feet) | |
|---|---|---|---|---|---|---|---|
| | | Joint App | Amended Design | Joint App | Amended Design | Joint App | Amended Design |
| Non-Participating Property Lines [1] | 150 | 10 | 38 | 50 | 64 | 145 | 162 |
| Non-Participating Residences [1] | N/A | 178 | 205 | 228 | 327 | 261 | 1,151 |
| Centerline of all roads including fences | 200 | 41 | 69 | 85 | 122 | 90 | 1,376 |
| Centerline of County Drain Tile [3] | 75 | N/A [4] | N/A [4] | 42 | 99 | 35 | 84 |

[1] Measurements were taken from non-participating parcels and residences adjacent to the Land Control Area.

[2] Measurements are taken from the fenceline of the Solar Facility.

[3] The County does not have a specified setback from county drain tile. This setback was established based on discussions with the Nobles County Drainage System Coordinator and the county's drainage engineer, ISG.

[4] County Drain Tile is present within the Preliminary Development Area; therefore, no distance to County Drain Tile is provided.

Source: Nobles County, 2021

Note: N/A = Not Applicable.

Since filing the Joint Application, Summit Lake Solar has continued coordination with Nobles County regarding County Drain Tile. On November 21, 2025, Summit Lake Solar met with Loretta Halbur, the Nobles County Drainage System Coordinator. During that meeting, the participants discussed the updated Project design presented in this Amendment as well as field surveys to accurately depict public and private drain tile in the Preliminary Development Area. Summit Lake Solar confirmed that the updated site layout described in this Amendment includes the maximum number of proposed County Drain Tile re-routes that will be considered and evaluated by Summit Lake Solar. Additionally, Summit Lake Solar confirmed that the solar arrays originally planned for the northwest corner of the intersection of McCall Avenue and 190th Street, near the property owned by Kyle and Malory Fritz, have been relocated and the existing County Drain Tile in this location will not be disturbed by the Project. The participants agreed that the Project facilities will maintain a 75-foot or greater setback on each side of County Drain Tile centerlines. Ms. Halbur advised Summit Lake Solar to consider potential impacts to existing drain tile when selecting tree species for the vegetative screening. Finally, Ms. Halbur raised concerns about the potential for impacts on collection lines if they are located above drain tile, as collection lines could be damaged if digging is needed to maintain drain tile. Summit Lake Solar will design collection lines to avoid crossing over existing drain tile. At locations where crossing is unavoidable, Summit Lake Solar may install collection lines below existing drain tile.

In addition to continued coordination with Nobles County, the Applicants have continued to prioritize outreach to neighboring non-participating landowners,[2] with a particular focus on those living adjacent to

[2] . The residents with whom the Applicants have coordinated include Dale Solt, Kyle and Malory Fritz, Rodney and Joann Burkard, Stuart Rogers, Curt Luing, and Debra Rogers.

the Project who expressed concerns about drain tile, aesthetic, or sound impacts

The Burkard and Fritz property owners expressed concerns regarding the potential for drainage issues, particularly related to the repair or rerouting of private tile lines during construction. To address these concerns, Summit Lake Solar has proposed Drainage Compensation Agreements that would provide compensation for any construction-related drainage impacts. To date, one property owner has accepted the agreement, and the other property owner has declined.

Summit Lake Solar recognizes the importance of addressing concerns from upstream landowners[3] and farmers regarding potential impacts from drainage tile reroutes and repairs. In-person meetings with two landowners are expected to occur before the end of the calendar year. During discussions with each landowner, Summit Lake Solar has highlighted the ongoing coordination with the county regarding County Drain Tile and its efforts to obtain all available private tile information from landowners participating in the Project. The tile maps provided by participating landowners have been digitized and provided to the Applicants' survey team, who will be locating all private drainage tile within the Project Land Control Area in the coming months. Summit Lake Solar will continue to relay Project updates to upstream landowners and farmers as more information is available.

At the public scoping meeting and via written comments submitted to the Commission docket, non-participating landowners also expressed concern about the original location of the BESS and its proximity to Reading. Summit Lake Storage shared its plans to relocate the BESS to the location described in this Amendment with neighboring landowners and to date most responses have been favorable. Summit Lake Storage has also conducted a detailed sound analysis (refer to Attachment C) of the updated BESS location and preliminary design and is working to minimize noise impacts on adjacent landowners, specifically the nearest non-participating landowner to the Project.

Some non-participating landowners also expressed concerns about the visibility of Project facilities from neighboring residences. To help mitigate these impacts, Summit Lake Solar has offered Good Neighbor Agreements, that include compensation for these residents to use as they wish, in lieu of Project-specific vegetative screening for their residence; these agreements are in addition to any agreements related to vegetative screening. Some of these landowners have noted that ash trees on their property have been dying and the compensation from the Good Neighbor Agreements could help alleviate the cost of removal. The Applicants have also engaged landowners regarding preferred vegetative screening options and incorporated the feedback into the most recent Project layout and Landscape Plan (refer to Attachment A) to further reduce aesthetic impacts from the Project. Additionally, Summit Lake Solar has updated the Project layout to increase solar array setbacks to at least 150 feet from non-participating residential property lines and at least 300 feet from all existing residences. While these adjustments do not eliminate visual impacts, they represent Summit Lake Solar's commitment to working with landowners to alleviate the concerns specifically raised during the environmental scoping public meeting and associated comment period.

Local stakeholders have also expressed concern about how the presence of the Project facilities could affect snow drift onto public roadways. Summit Lake Solar consulted with Summit Lake and Elk Township Supervisors Curt Luing and Stuart Rogers regarding these concerns. Mr. Rogers, who manages snow removal in the area, was identified as the primary contact to discuss these concerns. One of the

[3] Summit Lake Solar continues to meet with the following individuals to review proposed tile reroutes and mitigation measures: Mike Harberts, Randy Lubben, Wally Cooper, Bruce Kingery, Neil Cuperus, Greg Ponto, and Russ Penning.

primary concerns communicated by Mr. Rogers is the potential for snow removal to damage Project fences if they are positioned too close to the public road right-of-way. To address this concern, the Applicants have proposed a 50-foot setback for fencing from the edge of the public road right-of-way to provide adequate spacing for snow removal operations. The Applicants conducted a detailed snow drift analysis of the Project area and the results confirmed that the 50-foot setback is sufficient to allow snow to move through the fence structure without excessive buildup or drifting on public roads. The analysis also recommended the installation of vegetative screening in specific areas to control drifting in locations where drifting could be problematic, and these recommendations have been incorporated into the Project design and Landscape Plan provided in Attachment A. Visual renderings of vegetative screening areas are included in Attachment B; vegetative screening will also be shown in the final engineering drawings for the Project.

The Applicants continue to keep Nobles County apprised of Project development updates. The Applicants' representative met with Kathy Henderschiedt, Nobles County Zoning Administrator, on December 10, 2025, to review the Project layout changes described in this Amendment and provide an update on status of ongoing landowner communications, including how the Applicants are addressing landowner concerns. In addition to the design changes described in the preceding paragraphs, Ms. Henderschiedt inquired about road usage during construction of the Project. The Applicants will include a map of proposed haul routes with the Development Service Agreement to the county for their approval. The Applicants clarified that equipment hauling during construction will primarily occur on interior access roads within the Project Land Control Area. Ms. Henderschiedt also asked if the size or capacity of the BESS have changed in the updated Project design, and the Applicants confirmed that the size and nameplate capacity of the BESS have not changed. Finally, Ms. Henderschiedt expressed appreciation for how the Applicants have continued to engage with local stakeholders and work to address their concerns.

## 2.1 Impacts

As a result of the proposed Project changes, some Project impacts are different than what was described in the Joint Application. The changes to Project impacts are summarized in Table 2.1-1. The Applicants used the same methodology to assess the potential Project impacts on humans and the environment as was included in the Joint Application. The Project changes described herein do not present a significant change to Project impacts. The Applicants updated the original Joint Application maps to reflect the current Project design (see Amended Maps 1-16 and New Map 4a). The new Map 4a presents a detailed overview and comparison of the Project design presented in the Joint Application and the updated Preliminary Development Area.

Table 2.1-1 provides a summary and comparison of the impacts that have changed based on review of the amended preliminary Project design described in this Amendment and the preliminary design described in the Joint Application. Only elements that are anticipated to be different than what was described in the Joint Application are included in this table. Impacts on features not included in the table are anticipated to remain the same as described in the Joint Application.

**Table 2.1-1**
**Amended Project Impacts**

| Criteria | Units | Joint Application | Amended Design | Difference | Additional Information |
|---|---|---|---|---|---|
| **Residence Proximity to the Preliminary Development Area, Solar Arrays, BESS** | | | | | |
| ≤ 50 | feet | 0, 0, 0 | 0, 0, 0 | 0, 0, 0 | The amended Project design is within one mile of slightly more residences, but fewer residences are within 500 feet of the Preliminary Development Area, Solar Arrays, and BESS.<br><br>**Source:** Revised Site Plan and aerial imagery review. |
| 51 feet to 150 | feet | 0, 0, 0 | 0, 0, 0 | 0, 0, 0 | |
| 151 feet to 300 | feet | 9, 1, 1 | 3, 0, 0 | -6, -1, -1 | |
| 301 feet to 500 | feet | 11, 11, 0 | 10, 8, 0 | -1, -3, 0 | |
| 501 feet to 1,000 | feet | 31, 20, 7 | 33, 20, 0 | +2, 0, -7 | |
| 1,001 feet to 5,280 (1.0 mile) | feet | 34, 53, 43 | 40, 58, 50 | +6, +5, +7 | |
| **Total** | count | **85, 85, 43** | **86, 86, 50** | **+1, +1, +7** | |
| **Estimated Operational Noise Levels** | | | | | |
| **Inverters** | | | | | |
| Distance to 50 dBA | feet | 58 | 58 | +0 | The selected equipment is unchanged from the Joint Application.<br><br>**Source:** Revised Site Plan and aerial imagery review. |
| Distance to Nearest Residence (Noise Level) | feet (dBA) | 609 (29.6) | 447 (31.3) | -162 (+1.7) | The revised Project design will result in a slight increase in noise due to the nearest inverter; however, the operational noise will remain in compliance with Minnesota Rules 7030.0040.<br><br>**Source:** Revised Site Plan and aerial imagery review. |
| **Trackers** | | | | | |
| Distance to 50 dBA | feet | 52 | 52 | +0 | The selected equipment is unchanged from the Joint Application.<br><br>**Source:** Revised Site Plan and aerial imagery review. |
| Distance to Nearest Residence (Noise Level) | feet (dBA) | 228 (37.2) | 327 (34.0) | +99 (-3.2) | The revised Project design has limited impact on operational noise from the solar facility trackers.<br><br>**Source:** Revised Site Plan and aerial imagery review. |

**Table 2.1-1**
**Amended Project Impacts**

| Criteria | Units | Joint Application | Amended Design | Difference | Additional Information |
|---|---|---|---|---|---|
| **BESS** | | | | | |
| Distance to 50 dBA | feet | 232 | 59 | -173 | The BESS equipment has not been selected, but the equipment used in the noise model is different from the equipment modelled in the Joint Application. See below for further discussion.<br><br>**Source:** Westwood Professional Services Noise Impact Assessment. 2025 (refer to Attachment C) |
| Distance to Nearest Residence (Noise Level) | feet (dBA) | 261 (49.0) | 1,151 (24.1) | +890 (-24.9) | The relocated BESS will be farther away from the closest residence in the revised Project design, reducing noise impacts.<br><br>**Source:** Revised Site Plan and aerial imagery review / Westwood Professional Services Noise Impact Assessment. 2025 (refer to Attachment C) |
| **Land Cover** | | | | | |
| Agricultural Land | acres | 1,479.4 | 1,415.5 | -63.9 | The revised Project design will impact fewer acres of agricultural land.<br><br>**Source:** Dewitz, J. and U.S. Geological Survey. 2021[1] |
| Developed Land | acres | 1.6 | 0.7 | -0.9 | The revised Project design will impact fewer acres of developed land.<br><br>**Source:** Dewitz, J. and U.S. Geological Survey. 2021[1] |

**Table 2.1-1**
**Amended Project Impacts**

| Criteria | Units | Joint Application | Amended Design | Difference | Additional Information |
|---|---|---|---|---|---|
| Emergent Herbaceous Wetlands | acres | 0.6 | 0.3 | -0.3 | The revised Project design will impact fewer acres of emergent herbaceous wetlands. Note: wetlands areas identified in the National Land Cover Database are not as accurate as the field-verified wetland delineation data; delineation data is provided further down in this table.<br><br>**Source:** Dewitz, J. and U.S. Geological Survey. 2021[1] |
| Barren Land | acres | <0.1 | 0.0 | -<0.1 | The revised Project design will impact fewer acres of barren land.<br><br>**Source:** Dewitz, J. and U.S. Geological Survey. 2021[1] |
| **Prime Farmland & Farmland of Statewide Importance** | | | | | |
| Prime Farmland | acres | 894.2 | 861.3 | -32.9 | The revised Project design will impact fewer acres of prime farmland.<br><br>**Source:** Soil Survey Staff, 2025[2] |
| Prime farmland if drained | acres | 561.0 | 531.8 | -29.2 | The revised Project design will impact fewer acres of prime farmland if drained.<br><br>**Source:** Soil Survey Staff, 2025[2] |
| Farmland of statewide importance | acres | 26.5 | 23.4 | -3.1 | The revised Project design will impact fewer acres of farmland of statewide importance.<br><br>**Source:** Soil Survey Staff, 2025[2] |

**Table 2.1-1**
**Amended Project Impacts**

| Criteria | Units | Joint Application | Amended Design | Difference | Additional Information |
|---|---|---|---|---|---|
| **Surface Waters** | | | | | |
| Wetlands | acres | 0.10 | 0.12 | +0.02 | The revised Project design will increase wetland impacts by 0.02 acre. Wetland impacts from access roads will increase from 0.02 to 0.03 acres, impacts from collection and communication lines will increase from 0.09 to 0.1 acres. In addition, wetland areas within the Project fence will increase from 0.91 to 2.07 acres; however, these wetlands will not be impacted by Project facilities.<br><br>**Source:** Tetra Tech, Inc., Wetlands and Waters Survey. October 16, 2024 (provided in Appendix H of the Joint Application) |
| Inventoried Archeological Sites | number | 1 | 0 | -1 | The preliminary design described in the Joint Application showed collection and communication lines crossing Site NO0093; site avoidance was recommended by Tetra Tech. This site is avoided by the amended Project design. |
| Federally Listed Threatened and Endangered Species | Species | Topeka Shiner (Endangered); Monarch Butterfly (Proposed Threatened) | Topeka shiner (Endangered); Monarch Butterfly (Proposed Threatened); Suckley's Cuckoo Bumble Bee (Proposed Threatened) | 0, +1 | Suckley's cuckoo bumble bee was identified as potentially present in the refreshed IPaC review. Suckley's cuckoo bumble bee is proposed under the ESA, and as such, is not afforded protection under the Act. No additional impacts are anticipated A copy of the IPaC report is provided in Attachment D. |

[1] Dewitz, J. and U.S. Geological Survey. 2021. National Land Cover Database (NLCD) 2021 Products. Available online at: https://www.usgs.gov/data/national-land-cover-database-nlcd-2021-products. Accessed November 2025.

[2] Soil Survey Staff. 2025. Soil Survey Staff, Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture (USDA). Web Soil Survey. Available online at https://websoilsurvey.sc.egov.usda.gov/. Accessed November 2025.

Based on landowner input received during the public scoping meeting and throughout the Commission site permits proceeding thus far, a primary goal of the Project design revisions is to create greater distance between residences and the Project to reduce visual and noise impacts.

Noise levels decrease as the source of the noise moves farther away from the listener. The Project changes described in this Amendment increase the distance between residences, and noise-generating equipment, such as inverters, trackers, and the BESS enclosures. In addition to creating greater distance between noise-generating equipment and residences, Summit Lake Storage has also updated the BESS model contemplated in the Project design to a model that is quieter than the model contemplated in the previous layout and described in the Joint Application. While the equipment that will be used for the BESS has not been determined, the original BESS enclosure contemplated in the Joint Application noise model will no longer be considered for use by Summit Lake Storage.

The Joint Application reported that Project construction would produce temporary sound impacts to local residences. The revised Project layout increases the distance between construction areas and the nearest noise sensitive area by 178 feet; therefore, the Project revisions will also reduce construction noise impacts. As reported in the Joint Application, construction noise for the Project will be temporary and primarily limited to daytime hours; the changes described in this Amendment do not alter this conclusion.

Regarding operational noise, noise generated by inverters and trackers in the Solar Facility have changed slightly but levels remain below the threshold of 50 A weighted decibels (dBA) experienced for 50 percent of every hour specified in Minnesota Rules 7030.0040.[4] The Joint Application reported that sound levels from operation of the BESS may exceed the noise limit in Minnesota Rules 7030.0040. The amended Project design increases the distance between the nearest residences and the BESS by approximately 890 feet. Additionally, Summit Lake Storage has modelled a new, low-noise, BESS model that is 12 dBA quieter than the model contemplated in the Joint Application. This quieter BESS technology substantially reduces operational noise compared to the previous BESS model and leads to a significant reduction in predicted noise at nearby residences (both participating and non-participating). Collectively, the updated Project layout and modified equipment will reduce the operational noise from the Project which will be below the limits set in Minnesota Rules 7030.0040. A full noise analysis for the BESS that describes the modeling parameters considered in this analysis is provided in Attachment A.

For this Amendment, the Applicants refreshed their review of the U.S. Fish and Wildlife Service's Information for Planning and Conservation (IPaC) website and the Minnesota Department of Natural Resources Natural Heritage Information System database on December 3, 2025. The refreshed review identified the same federal and state protected species as were described in the Joint Application. In addition, one federally proposed species, Suckley's cuckoo bumblebee (*Bombus suckleyi*), was identified in the IPaC review. The USFWS regularly pushes species range updates through IPaC based on their understanding of the best available data for species under their purview. While the species was proposed on December 17, 2024, it did not come up in the IPaC review of the Land Control Area until the December 2025 updated review. Proposed species are not protected under the Endangered Species Act (ESA). However, if the species is listed during the life of the Project, the Applicants will coordinate with the USFWS as needed. A copy of the IPaC report is provided in Attachment D.

Summit Lake Solar is also providing an updated Draft Vegetation Management Plan with this Amendment that reflects the revised Project design. The area within the BESS will not be vegetated to

[4] https://www.revisor.mn.gov/rules/7030.0040/

reduce fire risk. Accordingly, Summit Lake Solar will manage vegetation of the Project outside of the BESS fenced boundary. In addition, the VMP has been updated to focus on establishment of diverse, lower-height, and pollinator-friendly vegetation that requires less maintenance during Project operation. Changes in the VMP continue to meet, and in some cases exceed, the minimum habitat friendly standards when scored using the Habitat Friendly Solar Site Assessment Form for Project Planning. The revised VMP is available in Attachment E.

As described in Section 5.4.3 of the Joint Application, the Phase I cultural resources inventory report was submitted to the Minnesota State Historic Preservation Office (SHPO) on February 12, 2025. The SHPO provided comment on the report on April 3, 2025, and agreed with Tetra Tech's recommendations regarding site eligibility for listing in the National Register of Historic Places. In particular, SHPO agreed that Site NO0093 should be avoided or evaluated for eligibility. As noted in Table 2.1-1, the Project design has been updated to avoid this site. SHPO agreed that if Site NO0093 is avoided, the Project will not affect properties listed in or eligible for the National or State Registers of Historic Places, or within the Historic Sites Network. SHPO also requested some updates to the Project's Unanticipated Discoveries Plan; the Applicants will make the requested changes to the plan. A copy of SHPO's response is provided in Attachment F.

# 3.0 Assessment of Project Impacts

The assessment of the Project changes described above do not result in significant changes to the human and environmental impacts of the proposed Project from what was described in the Joint Application. The Applicants will apply all mitigation measures discussed in the Joint Application and required by the Site Permits.

Table 3.0-1 summarizes the impact evaluation for each of the siting factors found in Minnesota Rules 7850.1900, subpart 3 and Minnesota Rules 7850.4100.

| Table 3.0-1 Assessment of Impacts of Project Revisions | | |
|---|---|---|
| **Minnesota Rules** | **Siting Factors** | **Impact of Project Revisions** |
| **7850.1900** | | |
| Subp. 3 | A. a description of the environmental setting for each site; | No change |
| Subp. 3 | B. a description of the effects of construction and operation of the facility on human settlement, including, but not limited to, public health and safety, displacement, noise, aesthetics, socioeconomic impacts, cultural values, recreation, and public services; | No change to public health and safety, displacement, socioeconomic impacts, cultural values, recreation, and public services.<br><br>The revised Project design includes additional areas of vegetative screening and additional setbacks from residences and voluntary agreements have been offered to and reached with some adjacent landowners. The vegetative screening increases in setbacks and voluntary agreements collectively reduce or mitigate the aesthetic impacts of the Project.<br><br>Anticipated noise impacts are reduced in the amended design. |
| Subp. 3 | C. a description of the effects of the facility on land- based economies, including, but not limited to, agriculture, forestry, tourism, and mining; | Impacts on existing drain tile systems (county and private) and agricultural land are reduced in the amended Project design, thereby reducing impacts on agricultural production. Impacts on forestry, mining, and tourism are not anticipated, as described in the Joint Application. |
| Subp. 3 | D. a description of the effects of the facility on archaeological and historic resources; | The preliminary design described in the Joint Application showed collection and communication lines crossing Site NO0093; site avoidance was recommended by Tetra Tech and SHPO. This site is avoided by the amended Project design. |
| Subp. 3 | E. a description of the effects of the facility on the natural environment, including effects on air and water quality resources and flora and fauna; | Impacts on the natural environment are generally less in the amended Project design presented herein, as the total acres of the Preliminary Development Area are reduced. However, the revised design will minimally increase wetland impacts by 0.02 acre. Refer to Table 2.1-1 for a description of this change. |

| Table 3.0-1 Assessment of Impacts of Project Revisions | | |
|---|---|---|
| **Minnesota Rules** | **Siting Factors** | **Impact of Project Revisions** |
| **7850.1900** | | |
| Subp. 3 | F. a description of the effects of the facility on rare and unique natural resources; | No change. Suckley's cuckoo bumble bee was identified as potentially present in the refreshed IPaC review, and is proposed to be listed under the ESA, and as such, is not afforded protection under the Act. No additional impacts are anticipated. |
| Subp. 3 | G. identification of human and natural environmental effects that cannot be avoided if the facility is approved at a specific site or route; and | No change |
| Subp. 3 | H. a description of measures that might be implemented to mitigate the potential human and environmental impacts identified in items A to G and the estimated costs of such mitigative measures. | No change |
| **7850.4100** | | |
| | B. effects on public health and safety; | No change |
| | C. effects on land- based economies, including, but not limited to agriculture, forestry, tourism and mining; | Impacts on existing drain tile systems (county and private) and agricultural land are reduced in the amended Project design, thereby reducing impacts on agricultural production. Impacts on forestry, mining, and tourism are not anticipated. |
| | D. effects on archaeological and historic resources; | The Project design has been revised to avoid Site NO0093. |
| | E. effects on the natural environment, including effects on air and water quality resources and flora and fauna; | Impacts on the natural environment are generally less in the amended Project design presented herein, as the total acres of the Preliminary Development Area are reduced. However, the revised design will minimally increase wetland impacts by 0.02 acre. Refer to Table 2.1-1 for a description of this change. |
| | F. effects on rare and unique natural resources; | No change. Suckley's cuckoo bumble bee was identified as potentially present in the refreshed IPaC review, and is proposed to be listed under the ESA, and as such, is not afforded protection under the Act. No additional impacts are anticipated. |

| Table 3.0-1 Assessment of Impacts of Project Revisions | | |
|---|---|---|
| **Minnesota Rules** | **Siting Factors** | **Impact of Project Revisions** |
| **7850.1900** | | |
| | G. application of design options that maximize energy efficiencies, mitigate adverse environmental effects, and could accommodate expansion of transmission or generating capacity; | The revised Project design described herein minimizes impacts on existing drain tile systems and generally reduces impacts on human settlements and natural resources. |
| | H. use or paralleling of existing right-of- way, survey lines, natural division lines, and | No change |
| | I. use of existing large electric power generating plant sites; | No change |
| | J. use of existing transportation, pipeline, and electrical transmission systems rights-of-way; | No change |
| | K. electrical system reliability; | No change |
| | L. costs of constructing, operation and maintenance which are dependent on design and route; | No change |
| | M. adverse human and natural environmental effects that cannot be avoided; and | No change |
| | N. irreversible and irretrievable commitments of resources. | No change |

# 4.0 Conclusion

As demonstrated by the information provided throughout this Amendment and shown in Amended Maps 1-16, changes resulting from the Project redesign do not result in significant modifications to the human or environmental impacts of the Project.