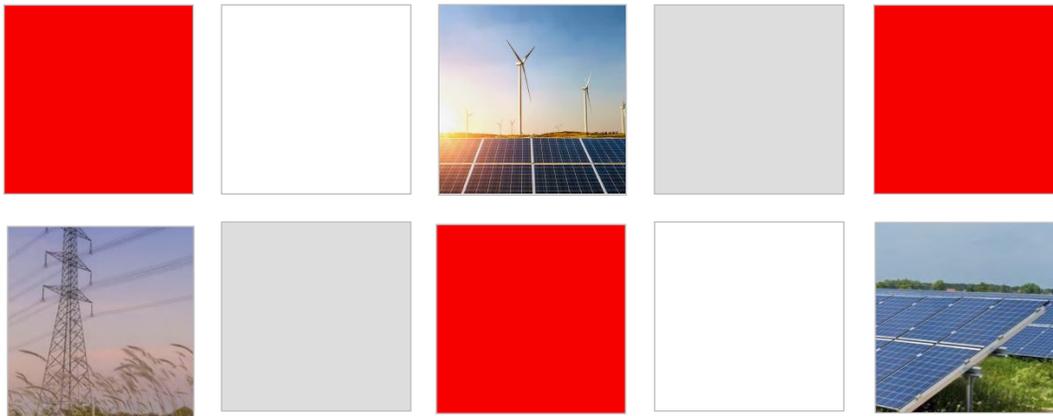


Appendix D

Draft Decommissioning Plan



PREPARED FOR

North Star Energy Storage, L.L.C.

**North Star Battery Energy Storage System Project
North Branch, Minnesota**

Decommissioning Plan

PREPARED BY

Merjent, Inc.
1 Main Street SE, Suite 300
Minneapolis, MN 55414

February 2025



TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
1.0 SYSTEM DESCRIPTION AND PROJECT COMPONENTS.....	1
1.1 Project Overview.....	1
1.2 Project Components	1
1.3 Generation Output	1
2.0 DECOMMISSIONING.....	1
2.1 Trigger Resulting in Decommissioning.....	1
2.2 Notification	1
2.3 Decommissioning objective.....	1
2.4 Decommissioning of Project Components.....	1
2.5 Battery Modules and Containment.....	2
2.6 Electrical Systems.....	3
2.7 Civil Site Structures (Fences, Gravel Pads, Access Roads).....	3
2.8 Equipment Required for Decommissioning	4
2.9 Timeline	4
3.0 ENVIRONMENTAL	6
3.1 Waste Disposal.....	6
3.2 BESS FACILITY Site Restoration	6
3.3 Stormwater Impacts / Erosion and Sediment Controls	7
3.4 Permitting	7
4.0 DECOMMISSIONING COST ESTIMATES.....	8
4.1 Costs	8
4.2 Revenues	9
4.3 Cost estimate assumptions	9
4.4 Financial Summary	10
4.5 Financial assurance	10

LIST OF TABLES

Table 4.1-1 Decommissioning Cost Estimates	8
Table 4.2-1 Salvage Revenue Estimates	9

LIST OF APPENDICES

Appendix A - Proposed Design Plans

EXECUTIVE SUMMARY

North Star Energy Storage, L.L.C., is planning to construct an 80-megawatt (MW), 320 megawatt-hour (MWh) battery energy storage system ("BESS Facility" or "the Project") adjacent to the existing North Star Solar Facility ("Solar Facility") within the municipal boundary of North Branch in Township 35N, Range 21W, Section 36, Chisago County, Minnesota. The Project will be sited directly adjacent to the existing Solar Facility collector substation (Solar Facility Substation) and energy will flow to/from the Point of Interconnection (POI), the Chisago County Substation, utilizing infrastructure already constructed to interconnect the North Star Solar Facility to the POI. 34.5 kilovolt (kV) medium voltage collection lines will tie the Project to the Solar Facility Substation. The start of construction for the Project is anticipated for Q1 2026.

This Decommissioning Plan (Plan) was developed to provide procedures, schedules, and costs associated with the removal of the BESS Facility at the end of its operational life or at any time such removal may be necessary. The Plan will be based on the BESS Facility site being restored to its pre-construction land use once the BESS Facility ceases to continue operations.

The BESS Facility and associated power generation generally will include battery modules, battery containment units, inverters, power conversion systems, electrical skids, substation equipment, subpanels, fencing, gravel access roads, and concrete pads. Decommissioning of the BESS Facility may be triggered by events such as abandonment during construction, interruption of operational requirements, unrecoverable damage from "act of god" events (e.g., tornado, fire, etc.), or when the Project reaches the end of its operational life. Decommissioning will include removing, salvaging/recycling, and disposing of the battery modules, battery containment, power conversion systems, associated electrical equipment and cables, removal of ancillary equipment, removal of site fencing, and grading and re-establishment of the existing soils. The decommissioning process for the BESS Facility will take place over a 12-month period as detailed in Section 2.9. All decommissioning and restoration activities will comply with local, state, and federal permit requirements at the time of decommissioning.

The estimated cost to decommission the BESS Facility and restore the BESS Facility Site may vary dramatically depending on several factors such as battery module health, current resale market, current metal prices, and recycle costs. The current estimated revenue is approximately **\$10,667,031** in 2024 present-day dollars. This total was determined by subtracting the estimated salvage revenue of **\$16,327,980** from the estimated decommissioning cost of **\$5,650,949**. Division of this estimated revenue by the anticipated 320 MWh size of the Project provides a revenue of approximately **\$33,365** per MWh. The estimated decommissioning costs and salvage revenues are expressed in present-day dollars and do not account for inflation or other future changes in costs or salvage values. The assumptions for these values are conservative for the purpose of determining the amount of financial security required. The current net decommissioning costs are estimated to be lower than the anticipated revenue provided through resale and scrap. Beginning in Year 10 of operation, the Plan shall be reviewed every 5 years to make changes to estimated costs, removal methods, or disposal methods as applicable based on new or updated information.

1.0 SYSTEM DESCRIPTION AND PROJECT COMPONENTS

1.1 PROJECT OVERVIEW

North Star Energy Storage, L.L.C. is planning to construct an 80-megawatt (MW), 320 megawatt-hour (MWh) battery energy storage system (BESS Facility) adjacent to the existing North Star Solar Facility within the municipal boundary of North Branch in Township 35N, Range 21W, Section 36, Chisago County, Minnesota. The Project will be sited directly adjacent to the existing North Star Solar Facility collector substation (Solar Facility Substation) and energy will flow to/from the Point of Interconnection (POI), the Chisago County Substation, utilizing infrastructure already constructed to interconnect the North Star Solar Facility to the POI. The operational footprint of the BESS and access road is expected to cover approximately 10.0 acres. The start of construction for the Project is anticipated for Q1 2026.

While this is BESS and not solar, solar is the closest land use contemplated at the state and local level. Thus, this Decommissioning Plan (Plan) was developed in accordance with North Branch Zoning Ordinance in alignment with Chapter 66 Article XI Solar Energy Systems and Minnesota Public Utilities Commission (MPUC or Commission) Site Permit Guidelines. The Minnesota Department of Commerce (DOC) Energy Environmental Review and Analysis (EERA) *Recommendations on Review of Solar and Wind Decommissioning Plans* has also been considered in the development of this Plan. The purpose of the Plan is to describe is to provide procedures, schedules, and costs associated with the removal of the BESS Facility at the end of its operational life or at any time such removal may be necessary. The Plan will be based on the BESS Facility site being restored to pre-construction land uses once the BESS Facility ceases to continue operations. The Plan was developed in accordance with applicable professional engineering and industry standards.

1.2 PROJECT COMPONENTS

The BESS Facility has components associated with construction of the BESS and associated power generation. Primary equipment associated with the BESS Facility includes:

- (120) battery storage containment systems including HVAC systems
- (30) Power conversion systems
- Medium and low voltage AC electrical wiring
- (4) Auxiliary equipment skids
- Control and monitoring cabinets
- Operations and maintenance building
- Substation terminations and equipment
- Site civil work including perimeter fencing, site access, and internal roads

1.3 GENERATION OUTPUT

The BESS will be connected to an existing substation adjacent to the Project site. The BESS will help stabilize the transmission system from the variable nature of solar generated energy from the nearby Solar Facility. The BESS will be able to absorb excess solar energy when output is high and inject energy into the system when output is low or if solar production suddenly drops due to events such as passing cloud cover. North Star Energy Storage, L.L.C. is working towards securing a Power Purchase Agreement (PPA) for the Project to sell the energy capacity to Xcel Energy.

2.0 DECOMMISSIONING

2.1 TRIGGER RESULTING IN DECOMMISSIONING

Decommissioning of the BESS Facility may be triggered by events such as abandonment during construction, interruption of minimum generation requirements, unrecoverable damage from “act of god” events (e.g., tornado, fire, etc.), or the Project reaches the end of operational life. North Branch City Code Chapter 66, Article XI requires that decommissioning of solar energy systems commence when the BESS Facility has not been in use for 12 consecutive months.

The expected lifetime of the battery modules is approximately 30 years. The BESS Facility intends to operate beyond this timeframe through procedural battery replacements, augmentation, and lease extensions. Depending on the market conditions and Project viability, the BESS may be retrofitted with updated components including battery modules, inverters, and other equipment, to extend the useful life of the BESS Facility.

2.2 NOTIFICATION

Prior to decommissioning the BESS Facility, North Star Energy Storage, L.L.C. shall notify the Commission, landowners, county and local governments, and all other affected parties. Following completion of all decommissioning activities all parties shall be notified through mutually agreed upon communication methods.

2.3 DECOMMISSIONING OBJECTIVE

The objective of decommissioning is to restore the site to a condition that will facilitate its pre-construction use at the end of operation. The system must be decommissioned when it is no longer in regular operation due to events in Section 2.1 or upon site permit expiration. At the time decommissioning is deemed necessary, North Star will be responsible for removal of all above ground equipment and underground equipment to a depth of 4 feet within the Project area associated with the BESS. North Star will restore and reclaim the site to pre-construction topography and topsoil quality to the extent practical.

Decommissioning includes but is not limited to the removal of battery modules, battery containment systems including HVAC systems, inverters, power conversion systems, overhead and shallow underground cables and lines, equipment pads and foundations, equipment cabinets, and ancillary equipment. The civil facilities, access roads, security fences, and drainage structure removal shall be included in the scope of this decommissioning plan. Standard decommissioning practices will be utilized, including resale, disassembly, repurposing, salvaging/recycling, or disposing of all associated BESS components. After all equipment is removed, all holes or voids will be filled in with native soil to the surrounding grade, and the Project site will be restored to pre-construction conditions, to the extent feasible. All access roads and other areas compacted by equipment will be de-compacted to a depth necessary to ensure adequate soil drainage and root penetration, then will be fine graded and tilled to allow for regrowth of native vegetation.

2.4 DECOMMISSIONING OF PROJECT COMPONENTS

At the end of the BESS Facility’s useful life, the BESS units and associated components will be decommissioned and removed from the BESS Facility site and the site will be restored in accordance with this Plan.

The following general decommissioning and site restoration processes would occur:

- Removing, resale, salvaging/recycling, and disposing of the battery modules, battery containment, power conversion systems, building materials, and supporting electrical systems.
- Removing, salvaging/recycling, and disposing of below-ground electrical cables to a depth of 4 feet (cables buried below 4 feet may be left in place).
- Removal of equipment, equipment supports, and foundations to a depth of 4 feet.
- Removal of the BESS Facility perimeter fencing after all equipment has been removed from the BESS Facility site.
- Removal of gravel roadway material and restoration of the roadway conditions to pre-development conditions. If the BESS Facility is decommissioned and the land is sold to a new owner, the BESS Facility roadways may be optioned to be retained by the new landowner.
- Grading, de-compaction of soils, adding/respreading of topsoil, and re-seeding the BESS Facility site in accordance with City of North Branch, Chisago County, and conditions in the Site Permit.

2.5 BATTERY MODULES AND CONTAINMENT

Decommissioning of the battery units includes disassembling, processing, and transporting battery components off the BESS Facility site. These structures include substructures consisting of modules, racking, and other mechanical support components associated with the battery units. Cutting and sorting of the scrap materials from the battery components will proceed in parallel, along with cutting, disconnecting, and dismantling the equipment. Battery modules can be tested to determine the individual state of health. This process is time consuming yet batteries with a state of health above 70 percent are anticipated to have a resale market. Selling the battery modules for reuse is the highest priority. Recycling battery modules is the next priority as scrap metals. Components of the battery modules that cannot be reused or recycled, such as plastic components, fasteners, and other support structures, would then be disposed of in a landfill. The current Environmental Protection Agency (EPA) guidelines (Title 40 Code of Federal Regulations [CFR] Part 273: Standards for Universal Waste Management) and Minnesota Statute 115A.9157: Rechargeable Battery and Products will be reviewed prior to disposal as complete and intact lithium-ion battery cells cannot be placed in a landfill per current regulations.

Lithium-ion batteries use safe operating practices to prevent injury due to electrical shock or battery explosion due to a short. Consult the battery manufacturer for specific instructions to ensure safe removal of the components. General recommendations include reducing the state of charge (SOC) of all battery modules as low as possible, visually inspecting battery modules and racks for abnormalities such as swelling or visible damage and isolating and insulating/taping positive and negative battery terminals to prevent accidental discharge. Another best practice includes scanning battery modules using a thermal imaging camera to identify potential internal defects that could lead to a fire or explosion upon transport. Lithium-ion batteries are considered a Class 9 hazardous material and shall comply with the specific packaging, labeling, and transportation requirements within the CFR Title 49, Subchapter C, Parts 171-180.

Decommissioning of the BESS includes removal of battery modules, electrical equipment, and heating, ventilation, and air conditioning (HVAC) components prior to being loaded on a flatbed for transport. Estimation or approximation of containment weight will be completed early in decommissioning to determine appropriate crane and transportation equipment ratings. The battery containment systems have resale potential as construction trailer and equipment storage units. HVAC system components attached to the containment may contain refrigerants which are considered ozone-depleting substances (OSD). All OSD material shall be collected and transported in separate containers per Section 608 of the Clean Air Act and handled using industry standard practices. All materials defined as hazardous waste through applicable federal, local, and DOT regulations shall be removed and cleared of any fluids prior to transportation using industry standard practices.

During the early life of the Project, minimal resale value of components has been calculated beyond scrap values, except for battery modules. Racking systems and components, cables and other associated equipment are considered scrap metal and will be sorted by material type (e.g. steel, copper, aluminum). Battery modules may also be recycled and sold as salvageable items. Remaining unsalvageable materials will be processed and transported to the local landfill.

2.6 ELECTRICAL SYSTEMS

Electrical systems associated with this BESS Facility will utilize alternating current (AC) system cables. The AC cables will consist of medium voltage cables buried in below-ground line with aluminum and/or copper cables. As part of decommissioning, underground cables will be removed from the ground to a depth of 4 feet. Underground cables deeper than 4 feet may be left in place. The primary service line installed underground to the BESS Facility may be decommissioned or utilized for a future project depending on the planned future development of the BESS Facility site. Most electrical cables are cut to specific lengths and often do not have resale value. As such, all cost estimates provided assume that all cables will be removed and recycled as bulk metal scrap or disposed of in a landfill with minimal to no value.

Removal of power conversion systems, electrical equipment skids, building materials, substation equipment, subpanels, and cabinets will follow similar procedures and processes as the battery units with reuse as priority. Power conversion systems, electrical equipment skids, and substation equipment has a higher probability of resale if removed from service properly without damage. Consult the equipment manufacturer instructions for proper storage and transportation methods. The operations and maintenance building, subpanels and cabinets have a lower probability of reuse and may be disassembled and sold for scrap metal or disposal in a landfill. For the estimates in this Plan, it will be assumed that power conversion systems, electrical equipment skids and substation breakers will have some resale value whereas subpanels and cabinets will be scraped or disposed up with minimal to no value.

2.7 CIVIL SITE STRUCTURES (FENCES, GRAVEL PADS, ACCESS ROADS)

The BESS Facility contains approximately 2,200 linear feet of fencing, 60,125 square feet of access roads, and concrete pads for power conversion systems and other electrical equipment.

Fencing for the BESS Facility shall be rolled up and removed from the BESS Facility site to be recycled or disposed of at a landfill.

BESS Facility site access roads shall be removed by excavating below surface and aggregate base until reaching native soil conditions unless it is mutually agreed upon with the landowner to

leave access roads. Ownership and maintenance of such access roads will be transferred to the landowner upon completion of the decommissioning process. The gravel surface and base material shall be hauled off-site to be properly recycled or disposed of at a local landfill or quarry. Typically, clean aggregate can be disposed of at a landfill at no cost, where it is used as daily cover. Subgrade of the access roads may contain a geotextile fabric placed before the aggregate surface was applied to the road. This geotextile fabric, if present, will be properly disposed of in a landfill.

Any concrete pads for the BESS Facility shall be demolished and removed from the BESS Facility site. Concrete pads require crushing and disposal in smaller pieces at a local landfill or location to be recycled. Concrete pads will also have an aggregate subbase that will require removal like the BESS Facility access roads.

2.8 EQUIPMENT REQUIRED FOR DECOMMISSIONING

There will be several standard types of equipment required to complete the decommissioning of the BESS Facility. Removal of battery modules from the containment unit to a pallet may be accomplished by manual labor. Moving battery module pallets to a truck for shipping will require a fork truck or skid steer. Removal of battery containment, power conversion systems, and electrical equipment skids will require a crane and rigging equipment including a flatbed for transport. Estimation or approximation of equipment weight will be completed early in decommissioning to determine appropriate crane and transportation equipment ratings. Demolition of electrical equipment will require an end loader, excavator, and manual disconnections. Cables can be pulled up by excavation or with an end loader or excavator. Removal of concrete pads will require an end loader or excavator to remove and break up the materials into manageable pieces. The removal of subgrade can be completed with an end loader or a skid loader and placed into haul trucks for removal.

All decommissioned items will be removed from the BESS Facility site via truck. Minimizing impacts to township, city, county, and state roads shall be considered during the hauling of materials. Seasonal roadway restrictions will be taken into consideration when completing the decommissioning tasks as part of this Project.

2.9 TIMELINE

The decommissioning process for the BESS Facility will take place over a 12-month period. The timing of revegetation of the BESS Facility site will be season dependent. The 12-month timeline assumes the schedule follows the sequence of demolition outlined in this document. It also assumes that the timing of decommissioning work may be impacted during winter months or during times of inclement weather.

The schedule shown below is a representative timeline of the decommissioning activities for each phase of demolition. This schedule is subject to change based on the business conditions, labor availability, field conditions, weather conditions, and any unforeseen conditions.

Task	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Mobilization	█											
Removal of batteries and conversion systems		█	█	█	█							
Removal of ancillary equipment					█	█						
Removal of electrical cables					█	█	█					
Remove site perimeter fencing							█					
Gravel roadways and gravel pads							█	█				
Site grading, de-compaction, and respread topsoil									█	█		
Seeding/Vegetation											█	
Demobilization												█

3.0 ENVIRONMENTAL

3.1 WASTE DISPOSAL

For the purposes of this Plan, it is assumed that many materials for the BESS Facility will be sold as scrap and recycled or disposed of rather than be sold for re-use. It is also assumed that scrap materials will be transported off-site to recycling facilities, salvage yards, or the landfill. The following landfills and salvage yards have been identified near the BESS Facility.

- Landfill
 - SRC Inc Waste and Recycle; 6320 E Viking Blvd, Wyoming, MN 55092 (14 miles)
 - Cambridge Solid Waste Transfer; 1756 180th Ave; Mora, MN 55051 (14 miles)
- Salvage Yards (Metal)
 - Evergreen Recycling LLC; 53465 County Rd 33; Rush City, MN 55069 (20 miles)
 - City-Tech Recycling; 6563 145th Ave NE, Forest Lake, MN 55025 (25 miles)
- Battery Recycling
 - Recycle Technologies, Inc; 10040 Davenport St NE; Blaine, MN 55449 (36 miles)

These facilities may not be in operation at the time of decommissioning, but it is assumed similar facilities will be present in the area. As the Plan is updated, these locations shall be reviewed, new ones identified, and the Plan revised accordingly. BESS components sent for disposal will be sampled and tested in accordance with industry, state, and federal standards to determine whether they will be managed as a hazardous waste under the current State of Minnesota or federal hazardous waste classifications.

3.2 BESS FACILITY SITE RESTORATION

Site restoration will include grading, decompaction, and re-seeding the BESS Facility site to pre-development condition. All land will be restored, and all unexcavated areas compacted by equipment and activities will be de-compacted to the depth needed to ensure proper density of topsoil and re-vegetation on the BESS Facility site. To the extent possible, all ripping and diking will be done at a time when the soil is dry and normal tillage operations can occur.

All access roads, compacted gravel equipment areas, and cement pad subgrades shall be further restored by importing topsoil, using fertilizer if necessary and employing other practices required to achieve pre-development conditions. Elevations of the finished area will match the surrounding grade to maintain existing drainage patterns. Topsoil shall be de-compacted and re-vegetated based on planned land use at the time of decommissioning. All rocks found in the uppermost 12 inches of soil and greater than 5 inches diameter shall be removed from the BESS Facility site.

During excavation and backfill, soil segregation will occur in accordance with the conditions in the Site Permit to ensure that topsoil and subsoils are maintained. Soil additives may be used to supplement local soils and ensure continued soil productivity if necessary. Excavated areas will be backfilled and compacted dependent on desired soil conditions.

All vegetation will be monitored for acceptable growth and stabilizing soil conditions. Any areas not found to be stable or vegetated will be reseeded per future land use requirements or landowner preferences and in accordance with local and state requirements.

3.3 STORMWATER IMPACTS / EROSION AND SEDIMENT CONTROLS

The BESS Facility contains primarily flat terrain. The BESS Facility is sited to avoid waterways, wetlands, and drainage ditches. Surface water conditions will be assessed prior to decommissioning and best management practices (BMPs) will be used to protect and restore the BESS Facility site to original pre-development conditions. Stormwater BMPs will be implemented to meet local and state requirements and based upon anticipated future land use.

During decommissioning of the BESS Facility, erosion, and sediment controls will be implemented per the MPCA Construction Stormwater General Permit (MNR100001) and the Project's Stormwater Pollution Prevention Plan (SWPPP). BMPs will meet the current Minnesota Department of Natural Resources (DNR) requirements for stormwater discharge associated with construction activities permitting. Construction site erosion and sediment temporary BMPs shall include street sweeping, rock construction entrance/exit, sediment barriers, and erosion prevention methods such as seed and mulch applied at 2.0 ton/acre and/or natural net erosion control blankets. Post-construction stormwater BMPs shall include an infiltration or filtration basin design consistent with the Minnesota Stormwater Manual depending on soil borings results to determine infiltration rates and depth to seasonal high water table. The stormwater management design will also comply with the City of North Branch's Municipal Separate Storm Sewer (MS4) ordinance and the City of North Branch Engineering Design Standards for Stormwater Management.

3.4 PERMITTING

All decommissioning and restoration activities will comply with federal and state permit requirements at the time of decommissioning. Decommissioning activities may disturb more than 1 acre of soil and could require compliance with additional state and local requirements. A site-specific SWPPP will be developed prior to filing a Notice of Intent (NOI) with the Minnesota Pollution Control Agency (MPCA). Permit(s), if required, shall be applied for, and received prior to commencing decommissioning activity.

If delineated wetlands near the perimeter of the BESS Facility will not be impacted during decommissioning, a Section 404 permit from the U.S. Army Corps of Engineers (USACE) will not be necessary. If wetland impacts are anticipated, a Joint Permit Application will be submitted to the USACE and the LGU to determine the need for Section 404 Permit or compliance with a Nationwide or Regional Permit. Section 401 Water Quality Certification would be covered under the USACE Nationwide or Regional Permit.

State of Minnesota air quality rules will also be reviewed at the time the work is scheduled to determine if an air quality permit will be required. All permits, compliance records and notices of permit discontinuation will be kept with BESS Facility decommissioning documentation.

4.0 DECOMMISSIONING COST ESTIMATES

4.1 COSTS

Costs associated with decommissioning the BESS Facility were determined utilizing data from sources including RS Means, other BESS and solar decommissioning cost estimates, EPRI reports, and 2024 Midwest costs for scrap metal, landfills, salvage yards and recycling facilities in the vicinity of the BESS Facility. The estimated decommissioning costs are expressed in present-day dollars and do not account for inflation or future changes in costs or salvage values. Resale, recycling, and disposal costs are heavily dependent on current battery resale market, current metal price, and recycling costs.

Table 4.1-1				
Decommissioning Cost Estimates				
Activity	Unit	Quantity	Cost per Unit	Total
PROJECT MANAGEMENT				
Mobilization	1	LS	\$25,000	\$25,000
Permitting	1	LS	\$15,000	\$25,000
Project Manager	12	Months	\$20,000	\$240,000
Support Staff	12	Months	\$18,000	\$216,000
Project Management Subtotal				\$506,000
BATTERY STORAGE REMOVAL				
Crew Safety and Training	1	LS	\$7,500	\$7,500
Disconnect Energy Sources	120	EA	\$2,000	\$240,000
Remove Battery Modules	22,857	EA	\$150	\$3,428,550
Recycle Battery Modules – 30%	6,857	EA	\$80	\$548,560
Remove HVAC	120	EA	\$1,200	\$144,000
Remove Power Conversion Systems	30	EA	\$8,300	\$249,000
Remove Equipment Skids	4	EA	\$8,300	\$33,200
Remove MV Cables	48,000	LF	\$3.65	\$175,200
Remove LV Cables	6,000	LF	\$14.75	\$88,500
Remove Substation Equipment	1	LS	\$30,000	\$30,000
Remove O&M Building	1	LS	\$25,000	\$25,000
Fencing Removal	2,200	LF	\$12.15	\$26,730
Gravel Removal	4,000	Yards	\$11.00	\$44,000
Battery Storage Removal Subtotal				\$5,040,240
ENVIRONMENTAL				
Erosion and Sediment Control	6,762	LF	\$3.85	\$26,034
Decompact Site	15	Acres	\$225	\$3,375
Grade Site	15	Acres	\$1,945	\$29,175
Seeding/Restoration	15	Acres	\$3,050	\$45,750
Environmental Subtotal				\$104,334
PROJECT TOTAL				\$5,650,949

4.2 REVENUES

The salvage revenue in the decommissioning cost estimate is based upon a high probability of battery module resale with additional scrap value of salvaged materials including salvaging components from the battery modules, inverters, power conversion systems, and other equipment. The estimated decommissioning revenues are expressed in present-day dollars and do not account for inflation or future changes in costs or salvage values.

Item	Unit	Quantity	Salvage Price per Item	Total
Battery Module Resale – 70%	EA	16,000	\$1,000	\$16,000,000
Battery Containment Resale	EA	120	\$1,250	\$150,000
Power Conversion Equipment Resale	EA	30	\$4,750	\$142,500
Electrical Skid Resale	EA	4	\$4,500	\$18,000
Substation Equipment Resale	EA	3	\$4,500	\$13,500
Other Metal Scrap	Ton	20	\$199	\$3,980
PROJECT TOTAL				\$16,327,980

4.3 COST ESTIMATE ASSUMPTIONS

Cost and salvage estimates were calculated using several conservative assumptions. Resale recycling and disposal costs are heavily dependent on current battery resale market, current metal prices, and recycling costs. The Project is large enough that it will require permitting, a project manager, and support staff during the 12-month decommissioning process.

The battery storage removal will be the largest portion of decommissioning costs. It is assumed that staff will require on-site training on safe work practices around lithium-ion battery systems. There is also time allocated for daily tailboard briefings to discuss the activities for that day's work and what hazards may be encountered. North Star should have the battery system in the lowest state of charge practical to limit DC battery voltages. There will be a significant amount of time dedicated to safely disconnecting all electrical sources including backfeed from the POI and isolating battery modules. It is assumed that each battery module will have to be disconnected and removed from the battery containment system prior to preparation and packaging for transport. This is anticipated to take two individuals approximately 60 minutes per module to complete these tasks. Each battery containment system will also have an HVAC system that may contain liquids and/or chemicals that will have to be individually removed prior to transport. All power conversion system and electrical skids will require a crane and flatbed truck for removal. Removal of medium voltage cables from each power conversion system to the point of interconnect and low voltage cables from each battery containment to the power conversion system will be disconnected and removed by backhoe or other excavation means with intent to scrap. Removal of all cabinets and associated hardware will require manual power and communication cable disconnections. The operations and maintenance building will be emptied of all equipment that can be resold or recycled before being demolished into recyclable scrap metal and landfill material. All fencing is expected to be removed and rolled for bulk scrap metal recycling or landfill disposal. All gravel will also have to be removed and hauled offsite for disposal or reuse to allow for full restoration of the land to its pre-construction land use or other agreed upon use.

Due to the extent of traffic and large equipment required for decommissioning, erosion and sediment control measures are anticipated to prevent damage to adjacent property. Areas such as gravel roads and gravel/cement equipment pads will require decompaction after gravel and cement is removed to allow for native growth to properly root in the soil. The site will be graded before final seeding and restoration is completed to return the site to its original state to the extent possible.

Salvage revenue is anticipated for several components of the Project. The values in this estimate are conservative approximations to provide proper financial assurance for anticipated future changes in market conditions. Battery resale revenue assumes seventy percent of battery modules will have adequate battery health for resale to secondhand markets. The remaining thirty percent of battery modules are included in other metal scrap revenue. The batteries are anticipated to be lithium iron phosphate (LFP) which have minimal anticipated salvage value. It is anticipated that a large quantity of BESS and electric vehicle batteries will reach the end of life in 20 to 30 years and market conditions may be drastically different. The battery containment units are expected to have a resale market as construction storage containment systems. All other metal scrap including AC wiring is grouped under a lump sum revenue per ton.

4.4 FINANCIAL SUMMARY

The estimated cost to decommission the BESS Facility and restore the Site may vary dramatically depending on several factors such as battery module health, current resale market, current metal prices, and recycle costs. The current estimated revenue is approximately **\$10,667,031** in 2024 present-day dollars. This total was determined by subtracting the estimated salvage revenue of **\$16,327,980** from the estimated decommissioning cost of **\$5,650,949**. Division of this estimated revenue by the anticipated 320 MWh size of the Project provides a revenue of approximately **\$33,365** per MWh. The estimated decommissioning costs and salvage revenues are expressed in present-day dollars and do not account for inflation or other future changes in costs or salvage values.

The assumptions for these values are conservative for the purpose of determining the amount of financial security required. The current net decommissioning costs are estimated to be lower than the anticipated revenue provided through resale and scrap. Beginning in Year 10 of operation, the Plan shall be reviewed every five years to make changes to estimated costs, removal methods, or disposal methods as applicable based on new or updated information. At that point, North Star Energy Storage, L.L.C. proposes to submit an updated Plan, cost estimate, and corresponding financial assurance every five years to adjust for inflation, improvements in technology, and market considerations. The exact amount to be allocated for decommissioning will assess the difference between estimated decommissioning costs and salvage value. The financial assurance shall be kept in place until such time as the decommissioning work has been completed.

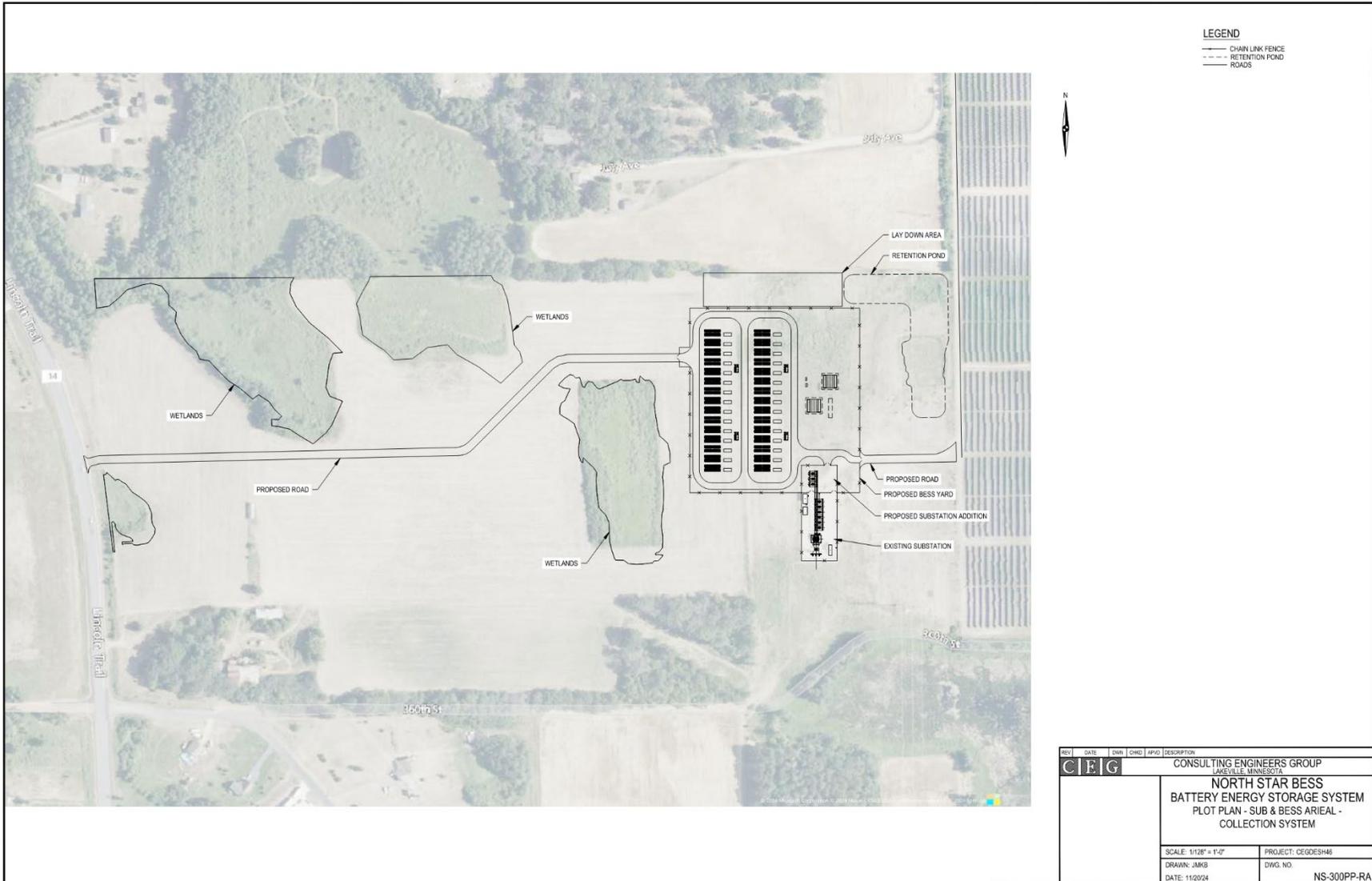
4.5 FINANCIAL ASSURANCE

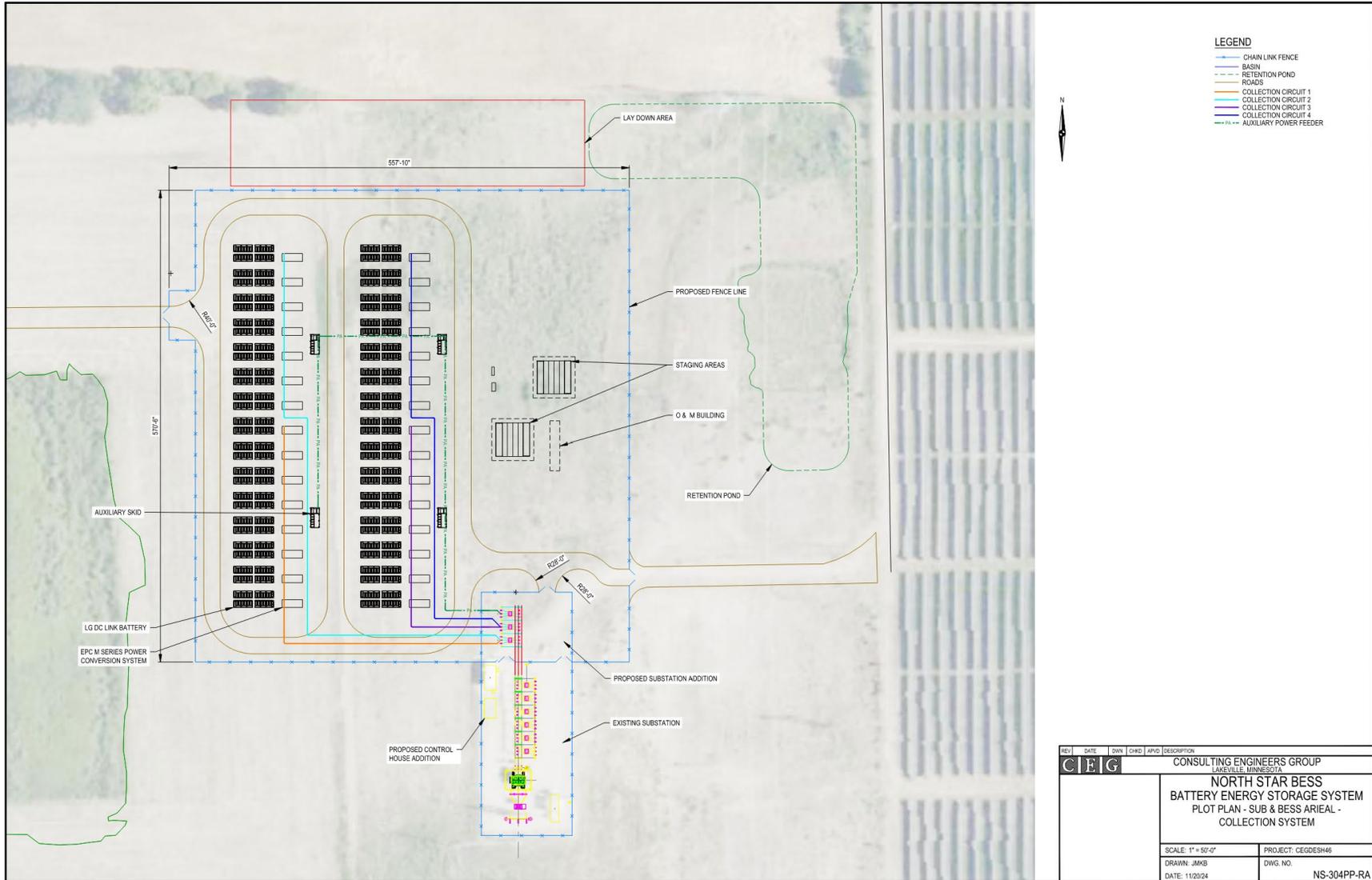
The North Star anticipates an operating life of 30 years or until the Site Permit expires. The site reserves the right to continue to operate the Project, instead of decommissioning, by applying for an extension of required permits. Consistent with the Solar and Wind Decommissioning Working Group recommendation, EERA recommends that the financial assurance process begins in year 10 and that North Star provide for full decommissioning costs prior to the expiration of any site leases. During the 10th year of operation, North Star Battery Storage will create an escrow account, a reserve fund, or another form of security that will ultimately fund decommissioning and

site restoration costs after Project operations cease. Under DOC EERA recommendations, a Financial Assurance is not required during the first ten (10) years from the Commercial Operation Date (COD) of the Project. A revised decommissioning estimate shall be submitted every five (5) years or any time there is a change in ownership. Each revised plan shall reflect updates in decommissioning techniques, reclamation equipment, decommissioning standards, decommissioning costs, and salvage estimates. The amount of the Financial Assurance shall be adjusted accordingly to offset any increases or decreases in decommissioning costs and salvage values determined during each plan reassessment.

Appendix A

Proposed Design Plans





REV	DATE	BY	CHKD	APPD	DESCRIPTION
CONSULTING ENGINEERS GROUP LAKEVILLE, MINNESOTA					
NORTH STAR BESS BATTERY ENERGY STORAGE SYSTEM PLOT PLAN - SUB & BESS ARIAL - COLLECTION SYSTEM					
SCALE: 1" = 50'-0"					PROJECT: CEGDES46
DRAWN: JMK8					DWG. NO.
DATE: 11/20/24					NS-304PP-RA