



Voyager Energy Storage Project

Decommissioning Plan

January 2025

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1. List of Abbreviations

AC	Air Conditioning
Ah	Amp-hours
BESS	Battery Energy Storage System
CHP	Combined Heat and Power
CFR	Code of Federal Regulations
DC	Direct Current
DOR	Division of Responsibility
HMR	Hazardous Materials Regulations
HRC	Hazard Risk Category
HVAC	Heating, Ventilation, Air Conditioning
ISO	International Organization for Standardization
IGBT	Insulated-gate bipolar transistor
kW	Kilowatt
LOTO	Lockout Tagout
LFP	Lithium Iron Phosphate (LiFePO ₄)
MW	Megawatts
MWh	Megawatt – hours
MVA	Mega Volt Ampere
OSHA	Occupational Safety and Health Administration
OEM	Original Equipment Manufacturer
PPE	Personal Protective Equipment
PCS	Power Conversion System
RCRA	Resource Conservation and Recovery Act
US DOT	United States Department of Transportation
US EPA	United States Environmental Protection Agency
UN	United Nations

2. Executive Summary

The purpose of this document is to provide an overall plan for activities that will occur during the planned decommissioning of the Voyager Battery Energy Storage Project, (the “Project”). Activities related to the restoration and the management of materials and waste will be considered in this document including:

- Permits, Certifications & Training
- Equipment Dismantling and Removal
- Removal and Recycling of the Battery Energy Storage Modules
- Removal of the Ancillary Electrical Systems
- Removal of Equipment Pads, Supports
- Site Restoration

This plan is based on current best management practices and procedures as of January 2025. It may be updated as necessary based on new information and developments as they are learned.

Many of the requirements imposed on decommissioning of a BESS, particularly the lithium-ion batteries, are imposed by the US EPA based on the waste classification of the material to be disposed.

A typical division of responsibility (DOR) for a BESS decommissioning project is provided in Appendix 1. A list of material/equipment/tools needed to complete a BESS decommissioning project can be found in Appendix 3.

3. Project Details

Project details including site location, site layout, list of major equipment, and conceptual schedule can be found in Appendix 2.

3.1. Battery Container

The Battery System uses a containerized approach. The containerized system integrates a closed liquid cooling system, multistage fire protection system, gas detection, battery management system (BMS), battery racks and battery packs into one overall system. Each battery container is pad mounted. Battery container dimensions are 6058*2438*2896 mm (19.88 x 8.00 x 9.5 feet) weighing 45,000 kg (99,208lb).



3.2. Battery Module

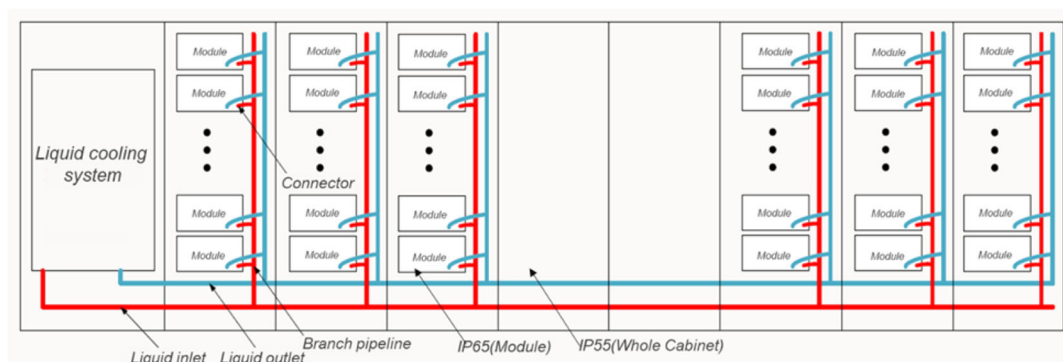
The fundamental unit of a battery module is the battery cell, where potential electrical energy is stored as chemical energy. The battery module is comprised of 104 cells arranged in two rows of 52 cells connected in series, with the two rows then connected in parallel (2P52S arrangement). The battery cells utilize LiFePO₄ lithium-ion based chemistry. Each battery module contains a battery module controller, which collects voltage and temperature data from the battery cells and reports to the battery management system. The battery module controller is comprised of power supplies, power resistors, heat sinks and various other electronic circuits for controlling battery performance.



3.3. Thermal Management System

The battery containers use a closed cooling system which circulates a liquid through the batteries to maintain the battery cells within a specified temperature range. The heated fluid is returned to the chiller where heat is removed, and the fluid is cooled. The chiller uses a refrigerant, in this case R134a, to cool the fluid.

The Ethylene Glycol/Water mixture will be recovered and sent to a recycling center for processing.



Example liquid cooling diagram

3.4. Power Conversion System

The Power Conversion System (PCS) for the project is SMA SCS-3950-UP-US integrated into SMA MPVS-4600-S2-US Medium Voltage Power Station. The PCS converts the DC power from the battery system to AC power for use on the grid. The PCS is comprised of a variety of switching components, control components and cooling system and is designed to regulate the battery's discharge. The PCSs are skid mounted units that are installed on a concrete foundation or permanent piling/footings. Each PCS includes a self-contained forced-air cooling system to maintain the components within a specified temperature range.

3.5. Additional Equipment

Additional balance of plant equipment on site includes 3665 kVA oil-filled pad mount transformers (integrated into MPVS-4600-S2-US SMA Medium Voltage Power Stations), control enclosures, distribution equipment, switchgear, 1680 kVA auxiliary transformers, and auxiliary equipment for monitoring. At end-of-life, the transformers offer the potential for refurbishment and reuse, while the balance of equipment is electronic waste that will be managed

appropriately.

4. Applicable Regulations, Certifications & Training

Decommissioning and restoration activities will adhere to the requirements of appropriate governing authorities, and will be in accordance with applicable federal, state, and local permits.

4.1. Michigan Environmental Quality & US DOT Regulations

Battery modules in the decommissioned system must be treated as Universal Waste per Michigan Administrative Code R.299.9228, which closely follows the US EPA Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 273). The Project Owner must obtain an EPA ID number in advance of decommissioning the system as more than 5000 kg of universal waste will be accumulated (40 CFR Section 273.32). The EPA ID number can be obtained at any point in the project lifecycle but must be obtained prior accumulating 5000 kg of universal waste, which will occur when the battery reaches end-of-life.

Lithium-ion batteries are classified by the US Department of Transportation (DOT) as Class 9 hazardous materials. All requirements related to the packaging, labelling and transportation contained in the Code of Federal Regulations, Title 49, Subchapter C, Parts 171-180, will be followed.

4.2. Certifications & Training

The handling of lithium-ion batteries will be performed by employees or contractors who have completed hazmat training applicable to their function (Code of Federal Regulations 49 CFR 172.704).

All workers who perform electrical work, including lockout/tagout and electrical disconnection, will be a qualified electrical worker as defined by 29 CFR 1910.269(A)(2).

All hazardous wastes will be transported using appropriate waste manifests by certified waste carriers to a US EPA certified Treatment, Storage or Destination Facility. All other materials, including those slated for asset recovery, will be transshipped using an appropriate bill of lading or other suitable DOT documentation.

5. Decommissioning Activities

At the time of decommissioning the installed equipment will be removed, repurposed, disposed of and recycled where possible. The facility will be secured, and assets removed. Site restoration will be restored to a state similar to its preconstruction condition determined by the

Property Owner. The removal of equipment and material will be done in accordance with the applicable regulations and manufacturer recommendations.

Prior to decommissioning, the facility will be deenergized and disconnected from the grid in coordination with all applicable parties. Generally, the decommissioning of the facility proceeds in reverse order of the original installation as follows.

5.1. State of Charge at Decommissioning

The battery energy storage system should be discharged to a state of charge as low as reasonably achievable. Although there is currently no restriction on the state of charge for ground transportation of lithium-ion batteries, the generally accepted practice is to reduce it as low as possible to minimize the hazard during handling and transport. If the batteries are reused, follow manufacturer's instructions regarding depth of discharge to prevent cell damage. Note that shipment by air is prohibited for batteries that are destined for recycling.

5.2. System Shutdown and Disconnection

Before the system can be dismantled or removed, it will need to be shut down and disconnected from the utility system in accordance with the manufacturer's/integrator's procedures. This will include a final inspection of the system, system shut-down, and physical disconnection of the system's electrical components.

5.2.1. Lockout/Tagout Procedures and Sequence

Before equipment can be decommissioned, it must be locked out and tagged out (LOTO) (LOTO). LOTO procedures provide safe work processes and procedures and must be compliant with OSHA standards 29 CFR 1910.147 and 29 CFR 1910.333 for the control of hazardous energy and the protection of employees working on electric circuits and equipment. Refer to Hithium Manual "ESS Container 5015kWh User Manual" for LOTO instructions specific to the Hithium 5105kWh Energy Storage Container.

5.3. Battery Removal

Battery packs will be removed from their racks and packaged in accordance with the battery OEM maintenance manual. Occupational Safety and Health Administration (OSHA) standards for safe lifting of heavy loads will be strictly followed. Multiple workers will be used as needed to safely remove the battery packs.

Lithium-ion batteries will be packaged in a manner to prevent short circuits, movement within

the outer package, and accidental activation of the equipment.

The batteries will be palletized and packaged in accordance with the requirements of 49 CFR 173.24 and 173.24a. The packages containing the batteries will be marked and labelled in accordance with 49 CFR 173.185, Subparts D and E. Considerations for damaged batteries are provided in Section 8.0. Refer to Section 9 for packaging considerations.

Lead acid batteries are typically used in the Control Enclosure for station backup power. The requirements for packaging of lead acid batteries are provided 49 CFR 173.159. Recycling of lead acid batteries is summarized in Section 12.0.

5.4. Battery Thermal Management System

Battery thermal management is provided via a closed cooling system that circulates a liquid, in this case ethylene glycol, through the batteries to maintain the battery cells within a specified temperature range. Ethylene glycol is not considered a hazardous waste by the US EPA but should be drained, collected, and brought to a chemical waste disposal facility. The chiller uses R134a refrigerant, which is not an RCRA listed hazardous waste but is subject to U.S. Environmental Protection Agency Clean Air Act Regulations Section 608 in 40 CFR Part 82 regarding refrigerant recycling. The refrigerant will be removed by a certified technician who will ensure that the refrigerants are not exposed to atmosphere while decommissioning the chiller and safe disposal of refrigerants comply with EPA regulations 40 CFR part 82, Subpart F.

Chillers used in the cooling system will be removed from the containers per OEM procedures and sent to a metal recycler separately, or they will be sent with the container to an off-site metal recycler/reclamation facility.

5.5. BESS Containers

All external additions such as stairs or railings, as applicable, will be removed and shipped separately as necessary to meet standard container shipping dimensions. All loose components will be removed, and anchoring will be removed to permit container to be lifted from the site. The container will be lifted by crane onto a flatbed or suitable moving vehicle for shipment to recycler/reclamation facility. Further container deconstruction may occur offsite.

5.6. Power Conversion System

The PCS unit or portions of it can potentially be returned to the manufacturer or for secondary use in other projects. Alternatively, the PCS units will be sent to an R2-certified waste electronics salvage facility, where they will be able to remove the Insulated Gate Bipolar

Transistor (IGBT) and other power electronics for metal recovery. The PCS units are thermally regulated using an atmospheric air-cooling system without refrigerant.

5.7. Transformers

Oil-filled transformers of this type typically have potential resale value, which will be pursued as the preferred outlet for this material. Should resale not be possible, transformer oil will be drained and sent to a waste oil processing facility for proper management. When disposed mineral oil is not considered a hazardous waste per US EPA RCRA regulations. The transformer will be sent to a metal recycler or metal smelting facility for further processing and reclamation.

5.8. Additional Equipment

Control enclosure, automatic transfer switches, dry-type transformers and switchgear are considered electronic waste at end of life. Metal structures that can be easily separated will be sent to metal recyclers for reclamation. The balance of the electronic equipment will be sent to an approved electronic waste recycler for proper management.

5.9. Electric Conductor Removal

The electrical cabling and all grounding devices will be disconnected from equipment. Cabling will be pulled from conduits where applicable. Below grade conduits will be excavated unless otherwise specified by the Property Owner. All removed cabling and conduit will be sent to a metal recycler for reclamation.

5.10. Foundation Removal

Concrete foundations and slabs used as equipment pads will be broken and removed to a depth of two feet below grade. Clean concrete will be crushed and disposed of off-site and/or recycled and reused either on or off-site. Steel H-pile (helical pile) foundations can be extracted via hydraulic or vibratory extraction methods.

6. Site Restoration Process Description

Following decommissioning activities, the sub-grade material and topsoil from affected areas will be de-compacted and restored to a density and depth and a useful condition similar to that which existed before construction. The affected areas will be inspected, thoroughly cleaned, and all construction-related debris removed. Disturbed areas will be reseeded to promote re-vegetation of the area unless the area is to be immediately redeveloped. In all areas restoration

shall include, as reasonably required, leveling, terracing, mulching, and other necessary steps to prevent soil erosion.

7. Environmental Effects

Decommissioning activities have a similar risk of environmental impacts as those associated with construction phase. For example, decommissioning activities will result in the disturbance of soil, and erosion prevention measures will be put in place, so nearby watercourses or other natural features are not impacted. A Sediment and Erosion Control Plan like that used during construction will be employed. The sediment and erosion control measures will remain in place until the site is stabilized to mitigate stormwater runoff and soil erosion. Temporary impact to roadway traffic similar to those during construction will accompany the decommissioning process. Noise levels similar to those during construction may be heard in the surrounding area while the decommissioning is taking place.

8. Damaged Batteries

Guidelines for safely handling batteries that have been subjected to abnormal conditions during installation or operation are provided below. In some cases, these abnormal conditions may require special care and specific packaging, storage and/or shipment requirements. Such abnormal conditions include:

1. Mechanical damage
2. Electrical damage
3. Thermal damage
4. Leaking electrolyte (resulting from either mechanical, electrical damage)

8.1. Mechanical Damage

Mechanical damage to battery modules can occur during handling and the damage may range from superficial scratches to more significant damage (e.g., dents, broken hardware, etc.). In severe cases, mechanical damage of the battery module resulting from severe shocks (e.g., dropping a battery module) can create a flaw in the cell that results in an internal cell fault much later (i.e., after the cell has undergone numerous cycles).

If mechanical damage is evident, or if the battery module is believed to have been subjected to severe shocks (i.e., dropped), take the following actions:

- Quarantine and monitor battery modules that have suffered mechanical damage. Mechanically damaged battery modules should be recycled rather than placed back into service.
- If the mechanical damage is severe, check for any signs of leaking electrolyte. If found, follow the guidance provided in Section 8.4 below.
- Battery modules that have been mechanically damaged should be packaged and shipped per the guidance provided in Section 9.0 below.

8.2. Electrical Damage

Electrical damage may result from improper operation of the battery module, such as over-discharge, or may result from an internal or external short circuit. Over discharge may occur when the battery module has been fully discharged to the point that overall voltage is too low, or the voltage of individual batteries is much lower than its normal working voltage range. A short circuit could be caused by external means such as improper handling that results in the battery terminals shorting together, or from severe mechanical damage that results in an internal short between cells.

In the event of known or suspected electrical damage, take the following actions:

- If the battery module is in operation, follow OEM product manual for proper LOTO and disconnect instructions.
- Quarantine and monitor battery modules that have suffered electrical damage. Electrically damaged battery modules should be recycled rather than placed back into service.
- Check for any signs of leaking electrolyte. If found, follow the guidance provided in Section 9.0 below.
- Battery modules that have been electrically damaged should be packaged and shipped per the guidance provided in Section 9.0 below.

8.3. Thermal Damage

Thermal damage may occur due to a variety of conditions, including high internal temperatures that may result during operation that cannot be dissipated by the battery cooling system or high ambient temperature during storage that exceed manufacturer's recommendations.

8.3.1. High Internal Temperatures during Operation

Under normal circumstances, when the battery of the battery pack is over its upper-temperature limit, the heat-removal system of the battery pack will automatically conduct the heat dissipation to make the battery pack cool down to the optimal working temperature range. When the battery pack cannot cool down to the target temperature within the OEM-specified time or the temperature of the battery pack exceeds the upper limit of safe use, notify OEM technical personnel to conduct a comprehensive inspection. If the evaluation determines that the excess temperatures may have damaged the battery module, it should be treated as a damaged battery and recycled following the guidance provided in Section 9.0 below.

8.3.2. High Ambient Temperatures during Storage

The battery manufacturer publishes specifications for proper storage of lithium-ion batteries, including ambient temperature ranges. Exceeding the ambient temperature specification as described in the OEM product manual can cause battery performance degradation. If it is believed that ambient storage temperatures exceeded manufacturer's specifications of 0-35°C (see product manual), notify OEM technical personnel to conduct an evaluation. If the evaluation determines that the excess temperatures may have damaged the battery module, it should be treated as a damaged battery and recycled following the guidance provided in Section 9.1 below.

9. Packaging for Shipment

This procedure is limited to batteries that remain classified as Universal Waste despite the damage, such as blunt force damage to battery module casing, loose parts, swollen cells, evidence of short circuit, etc. This procedure does not apply to damaged batteries with leaking cells. Such batteries must be shipped as a fully regulated hazardous waste. The specific packaging requirements will vary depending on the volume of leaking material. Regulations for shipment of hazardous waste are specified by US EPA in 40 CFR Part 263.

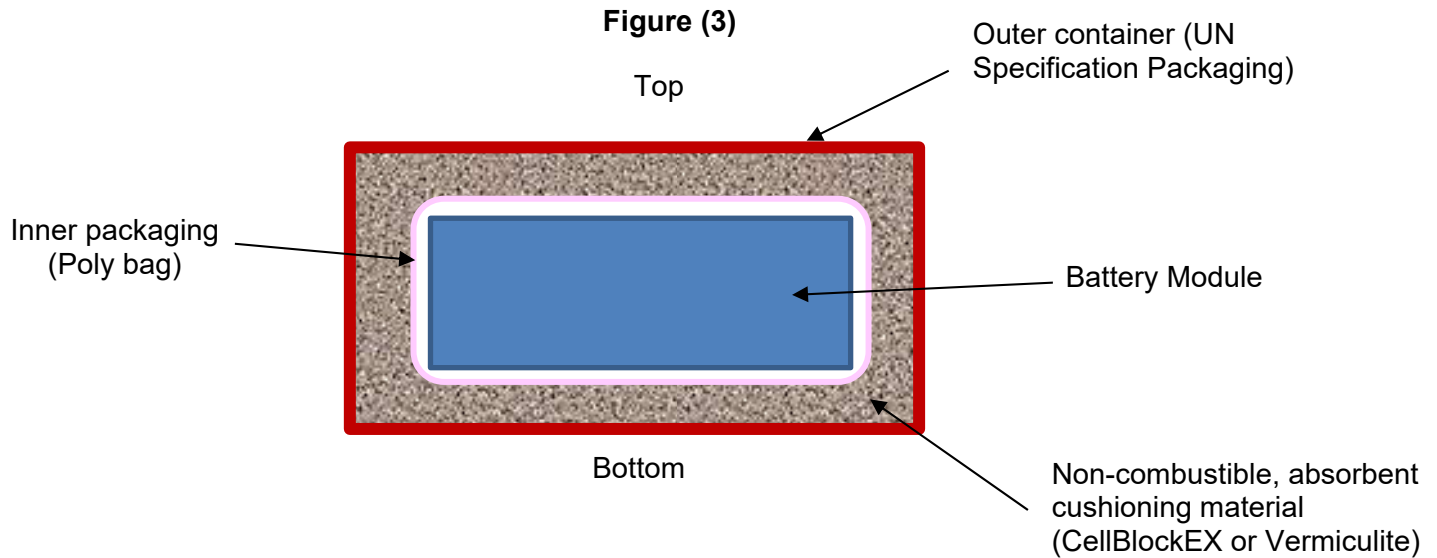
Before handling battery modules, the following requirements must be observed:

- Wear personal protective equipment including eye protection and nonconductive gloves
- Handle all damaged, defective, or recalled batteries with the same responsible care as a new battery to avoid any further damage.
- Do not drop batteries into the packaging or onto the shipping skid/pallet. Set them down carefully. Use lifting and handling fixtures as needed.

- If multiple damaged batteries are being shipped, they may be palletized and stacked provided the overall weight does not exceed the capacity of the pallet.

9.1. Preparing Battery Modules for Shipment

- Damaged, defective, or recalled batteries must be placed in UN specification packaging, which is specially designed and tested packaging that has been demonstrated to withstand the forces typically expected to be encountered during shipment.
- Any battery module or cell that is damaged must be packaged individually. Multiple batteries in the same packaging are prohibited unless such packaging is accompanied by a Special Permit issued by the US DOT Pipeline & Hazardous Material Safety Administration (PHMSA). US DOT considers the battery module a single unit.
- Battery module dimensions vary significantly by OEM and model. UN specification packaging must be procured that is suitable for the size and weight of the battery module to be shipped.
- The UN specification Packaging must be constructed of metal, plastic, or wood. Corrugated/fiberboard packaging is specifically prohibited.
- Terminals must be electrically insulated using electrical tape or other appropriate means.
- The battery module must be placed inside a non-metallic inner packaging that completely encloses the cell or battery. An anti-static plastic bag is suitable for this purpose.
- The battery module enclosed in the inner packaging must be placed inside the outer UN specification packaging and surrounded by cushioning material that is non-combustible, non-conductive, and absorbent (CellBlockEx or Vermiculite are suitable for this purpose). Refer to Figure 3 for a depiction of a properly prepared damaged battery.
- The battery modules should be set on the skid/pallet in the same orientation they were installed in the battery racks.



9.2. Package Labeling & Marking

- Each container must have the correct labeling to meet DOT regulations prior to shipment. This is considered a Universal Waste shipment and must be marked as such.
- Affix DOT Class 9 and UN3480 on at least 2 sides.
- Affix a Universal Waste label or clearly write the words “UNIVERSAL WASTE BATTERY” on the package.
- Label the package with the Consignor and Consignee Name and Address.
- Write “DAMAGED/DEFECTIVE LITHIUM-ION BATTERY” with black marker on at least one side.
- Do not overlap any markings or labels.
- Do not bend markings or labels around corners of packaging.
- Do not put labels on the bottom of the package.
- For shipments involving multiple damaged batteries, apply multiple layers of 75-gauge, clear stretch wrap around all four sides of the battery modules.
- Ensure all hazard markings, labels and UN Specification markings are clearly visible after shrink wrapping. If they are not visible, duplicate hazard markings and labels on the outside of the shrink wrap.

9.3. Record Retention

A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste sent must include the following information:

(1) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent.

(2) The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats).

(3) The date the shipment of universal waste left the facility. A large quantity handler of universal waste must retain the records for at least three years from the date a shipment of universal waste left the facility.

A large quantity handler of universal waste must retain the records for at least three years from the date a shipment of universal waste left the facility.

10. Transportation

The transportation of hazardous materials is governed by the US DOT Hazardous Materials Regulations (HMR) contained in 49 CFR Parts 100-180 and regulations specific to packaging of lithium-ion batteries are contained in 49 CFR 173.185. US EPA imposes a number of additional requirements through the full transportation lifecycle. These obligations include:

- Ensuring appropriate personnel complete classroom or on-the-job training to become familiar with proper hazardous/universal waste management and emergency procedures for the wastes handled at the facility.
- Monitoring and complying with accumulation time limits which define the amount of time hazardous/universal waste is allowed to accumulate on site.
- Maintaining records demonstrating compliance with the regulations, including tracking off-site waste shipments. Records must be retained for a period of three years.

Whether shipping a single battery or a palletized load of batteries, the safety of the package, and those who handle it in transport, depends on compliance with the HMR. Failure to comply with the applicable regulations could result in fines or even criminal prosecution.

Following removal of the batteries, the container and any remaining internal equipment will be lifted by crane onto a flatbed truck or chassis designed to accept the container. In some cases, a lowboy style trailer may be required due to height and weight limitations. In general, transport of an ISO container will not require special permits, however this will be confirmed prior to shipment.

11. Lithium Ion Battery Recycling

Battery recycling should be completed using an appropriate process to minimize environmental impact. Large battery packs first go through a manual disassembly process where technicians will carefully dismantle the pack, separating assembly pieces and circuitry from the battery cells. The separated cells are then fed by conveyor to an automated crusher. This crusher, which operates under a liquid solution to prevent fugitive emissions and to reduce the reactivity of processed batteries, produces three types of materials: metal solids, metal-enriched liquid, and plastic fluff. The metal solids and metal-enriched liquid contain materials that can all be used as raw materials in new products.

The recycling process for the power electronics is similar to that of traditional e-waste. Some equipment such as inverters and transformers have the potential for refurbishment and reuse, which would be the preferred alternative. For those that must be recycled, it will follow a standard electronic waste recycling process including but not limited to:

- Plastic materials will be retrieved and sent for recycling. The recyclers can then use the plastic materials to manufacture items.
- Metals will be separated and sent to a smelter for use in manufacturing newer steel products and metals.
- Circuit Boards will be smelted and recover tin, gold, silver, copper, palladium, and valuable metals.

The empty battery containers will be sent to a metal salvage yard for dismantling, deconstruction and recycling. Removed concrete will be crushed and screened to remove dirt and particles and to separate the large and small aggregate to be used for future construction projects.

12. Lead Acid Battery Recycling

The requirements for waste management of lead acid batteries are specified in 40 CFR 266 Subpart G. Lead acid batteries are highly recyclable and, in general, are exempt from certain hazardous waste requirements. Lead acid battery recycling follows a closed-loop recycling process

consisting of the following steps:

1. The lead acid battery is mechanically broken apart using a hammermill or similar equipment. The constituents are fed into a solution where the pieces are separated. Plastic parts rise to the top and are retrieved leaving lead and heavy metals.
2. Plastic materials are cleaned and dried and sent to a plastics recycler for processing and eventually sold to the manufacturer of battery cases, and the process begins again.
3. The lead parts are cleaned, smelted and formed into ingots, which are sold to lead acid battery manufacturers where they are used to form the lead plates and other lead components of the battery.
4. The electrolyte from the battery is recovered and treated by converting it to sodium sulfate, which is used in detergent, glass and textile manufacturing.

13. Conclusion

The decommissioning plan outline above addresses all anticipated activities that will occur during the decommissioning phase of the Voyager Battery Energy Storage Project. The processes presented above apply to both planned decommissioning at the end of project life and unplanned decommissioning that may occur throughout the project life, such as premature failure of components within this system. The decommissioning plan reflects current best management practices and procedures as of January 2025. It may be updated as necessary based on new information, requirements, and developments at the time of decommissioning.

APPENDIX 1 – Typical Division of Responsibility

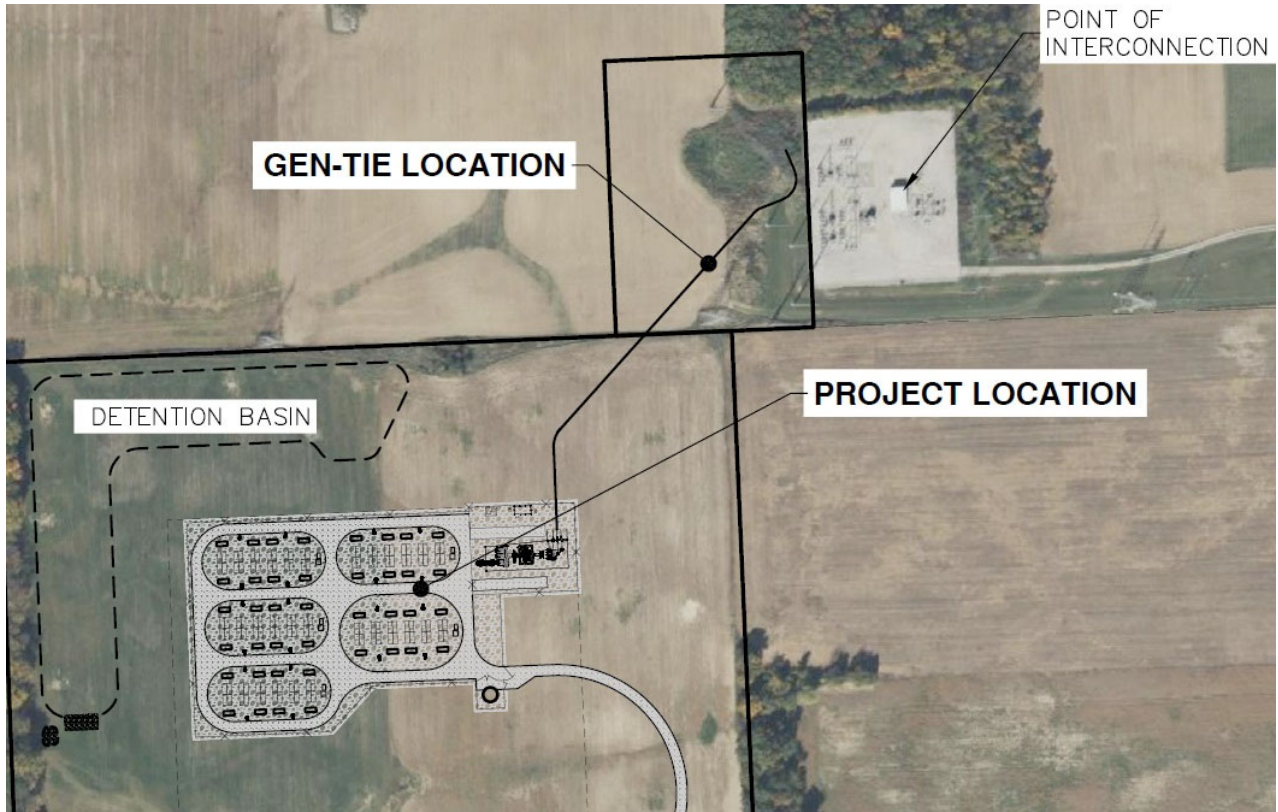
TYPICAL DIVISION of RESPONSIBILITY			
	Activity	Owner	Contractor
1.0	Project and Site Management		
1	Overall Project Management		X
2	Site Coordination/Site Management		X
3	Coordination Customer Internal Approvals	X	
4	Coordination with Independent System Operators/Utility Company	X	
5	Coordination with Geo-Tech Engineering if backfill/grading is required		X
10	Comply with existing Project Labor Agreements		
4	Payment of Fees including permits and Disposal of Equipment/Materials to Landfill	X (EPA)	X(Demolition, Landfill)
5	Provide existing site drawings, equipment manuals, equipment quantities, and bill of materials	X	
6	Provide material safety data sheets for all equipment/materials to be removed from site	X	
7	Provide and maintain insurance for all site related activities per Owner requirements		X
2.0	Pre-Mobilization Planning		
1	Obtain EPA Permit	X	
2	Obtain Demolition Permit		X
3	Obtain Environmental Permits (e.g. AQMD Approvals)	X	
4	Coordination and Notification of AHJs/Local Fire Authorities	X	
3	Develop and Submit Overall Site Safety Plans (JHA Procedure, Fall Protection, Hot Work, Hearing Protection, Heat Illness Protection, etc..)		X
4	Develop and Submit Emergency Response/Evacuation Plan		X
5	Develop and Submit Site Access/Security Plan		X
9	Develop Environmental Plans per Customer Specifications (Dust Mitigation, Storm Water Pollution Plan, Spill Prevention Plan, Audible Noise Plan, Wildlife Protection Plans, Emissions)		X
10	Provide traffic and track-out control plan		X
11	Develop and Submit Laydown Area and Parking Plan		X
6	Provide equipment removal and dismantling procedures		X
3.0	Site Preparations and Mobilization		
1	Provide Temporary Office Space (if required)		X
2	Provide Temporary Site Lighting (if required)		X
3	Provide and Connect Temporary Power Source		X
4	Provide Temporary Fencing (if required)		X
5	Provide Site Signage, Access Control, and Security		X
6	Provide Waste Management Equipment (Dumpsters, Oil Drums, Storage Bins)		X
7	Provide Portable Restrooms and Potable Water		X
8	Provide First Aid/Emergency Response Equipment (Eyewash Station, Fire Extinguishers, Spill Kits, AED, Heat Illness)		X
9	Perform Site Surveys to Locate Underground Utilities (Electrical/Gas/Water/Sewage) Prior to Digging		X
10	Relocation of Existing Equipment/Overheads To Facilitate Access	X	
11	Ensure all battery modules have been discharged to minimum SOC	X	
12	Perform hazardous material samples and inspections (asbestos, lead, PCBs, mercury)	X	
11	Perform hazardous material abatements if required	X	
4.0	System De-energization and LOTO		
1	Develop AC Power De-energization/LOTO Plan with Utility Company at POC	X	
2	Develop Med (12K-34K) Voltage AC Power De-energization/LOTO Plan	X	
3	Develop Site Low (120/240/480V) Voltage AC Power De-energization/LOTO Plan		X
4	Develop Site DC Power De-energization/LOTO Plan		X
5	Develop Turnover Plan	X	
6	Perform MV De-Energization/LOTO Plan	X	
7	Perform LV De-Energization/LOTO Plan		X
8	Perform DC De-Energization/LOTO Plan		X
9	Complete System/Equipment Turnover to Dismantling Team	X	

APPENDIX 1 – Typical Division of Responsibility

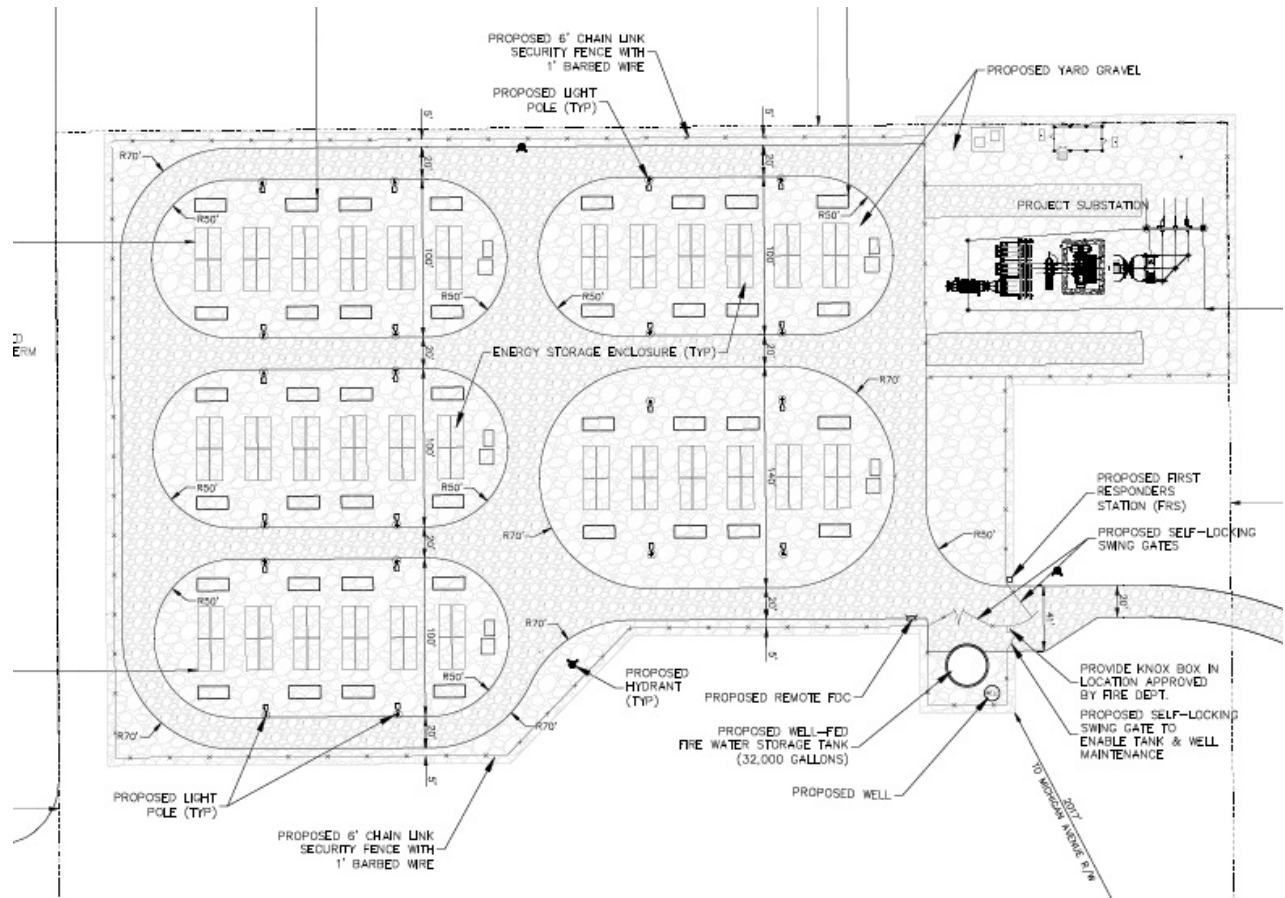
5.0	Equipment Dismantling/Removal		
1	Provide all Tools/PPE for Safe Dismantling/Removal of Equipment		X
2	Disconnect Low Voltage AC Power Cables at Terminals	X	
3	Disconnect DC Power Cables Including Battery String Cables at Terminals	X	
4	Sample and analyze Isolation Transformer Oil		X
5	Remove Isolation Transformer (s)		X
6	Prepare and Remove Pad Mounted Inverter (s)		X
7	Depressurize and Collect Battery Enclosure HVAC Refrigerant, if required		X
8	Remove Battery Enclosure Fire Suppression Agent/Canisters, if required		X
9	Remove battery modules from racks		X
10	Remove AC/DC Cables between Battery Enclosure and Transformer/Auxiliary Equipment up to high side of BESS main breaker		X
11	Remove Aux transformer and Aux Distribution Panels/Equipment		X
12	Remove BESS controls/SCADA		X
13	Remove MV switchgear	X	
14	Remove UPS and recycle UPS batteries		X
15	Remove above ground cable trays		X
16	Remove steel platforms and support structures		X
17	Remove Utility supplied equipment (meters, RTAC, switches, transformers)	X	
18	Remove power and control connections between MV switchgear and Utility POC	X	
19	Remove Foundations and Below Grade Material/Cables/Conduit		X
6.0	Equipment Packaging and Loading		
1	Package all equipment/materials for shipment per DOT standards		X
2	Ensure Proper Labeling of Equipment/Materials		X
3	Provide crane and/or forklift for equipment loading		X
7.0	Equipment/Materials Transport		
1	Coordinate pickup of battery modules		X
2	Coordinate pickup of all equipment/materials to be disposed to landfill or recycled by local scrap metal company		X
3	Recycle damaged Battery Modules with unbreached cells (Universal Waste)		X
4	Recycle damaged Battery Modules with breached cells (Hazardous Waste)		X
5	Recycle/Scrap Battery Enclosure/Racks/HVAC		X
6	Recycle/Scrap Inverter Enclosure/Power Electronics Inside Enclosure		X
7	Recycle/Resell Isolation Transformer		X
8	Recycle/Scrap Power and Control Cabling Outside Enclosure		X
9	Prepare Bill of Lading and Shipping Documents for respective shipments		X
10	Load equipment/materials onto trucks for shipment		X
11	Provide 24/7 emergency contact coverage during transport and storage required by 49 CFR 172.604		X
12	Ensure all equipment/materials have been delivered to recycler(s)		X
13	Manage recordkeeping and certifications		X
8.0	Site Demolition/Cleanup		
1	Inspection and Off Haul of Non -Contaminated Soils		X
2	Inspection and Off Haul of Contaminated Soils		X
3	Removal of Equipment Foundations		X
4	Removal of below grade material (Trenwa, Conduit, Manholes, Pull Boxes, Ground Grid Equipment, Concrete Encasements, Duct Banks)		X
5	Supply Backfill for Restore Grade per Geo-Tech Engineering Requirements		X
6	Remove and Dispose of Existing Site Fencing		X
7	Restoration of roadways to pre-Decommissioning conditions		X
8	Ensure all permit inspections have been completed		X
9.0	Demobilization/Project Closeout		
1	Remove all temporary equipment from site		X
2	Submit completed final turnover document package to Owner		X

APPENDIX 2 – Voyager BESS Project Details

Location: SALINE TOWNSHIP, WASHTENAW COUNTY, MI



APPENDIX 2 – Voyager BESS Project Details



APPENDIX 2 –Voyager BESS Project Details

Major Equipment

Major Equipment	
Battery System	Manufacturer: Hithium Model No: L1505 Quantity: 120 Enclosures Duration: 4 hours Chemistry: LFP Total Site Energy: 601.8 MWh installed BOL Dimensions: 6058*2438*2896 mm (19.88'x 8.00'x 9.5') Weight: 45,000 kg (99,208lb)
Inverter/PCS	Manufacturer: SMA Model No: SCS-3950-UP-US Quantity: 40 Packaging: Pad Mount Cooling: Air
DC/DC Converter	Manufacturer: N/A Model No: Quantity: Packaging: Cooling:
Transformer	Manufacturer: SMA Model No: TBD Quantity: 40 Size: 3365 kVA Type: KNAN (Natural Ester with air cooling)
Transformer	Manufacturer: Eaton Model No: TBD Quantity: 5 Size: 1680 kVA Type: KNAN (Natural Ester with air cooling)
Thermal Management	Cooling Method: Liquid-cooled battery container Manufacturer: Hithium
Fire Detection & Suppression	Manufacturer: Hithium
UPS	Included

DECOMMISSIONING RESPONSIBLE PARTIES:

The following individuals are required for the execution of the decommissioning plan:

General Contractor:

One (1) Project Manager/Superintendent
One (1) Environmental, Health and Safety Manager

Electrical Lockout/Tagout and Disconnection:

One (1) electrician with high voltage certification
Two (2) electrician support members

Battery Removal:

Three (3) forklift operator
Nine (9) battery removal & packaging technicians (trained in lithium-ion battery handling per US DOT)
Truck operators

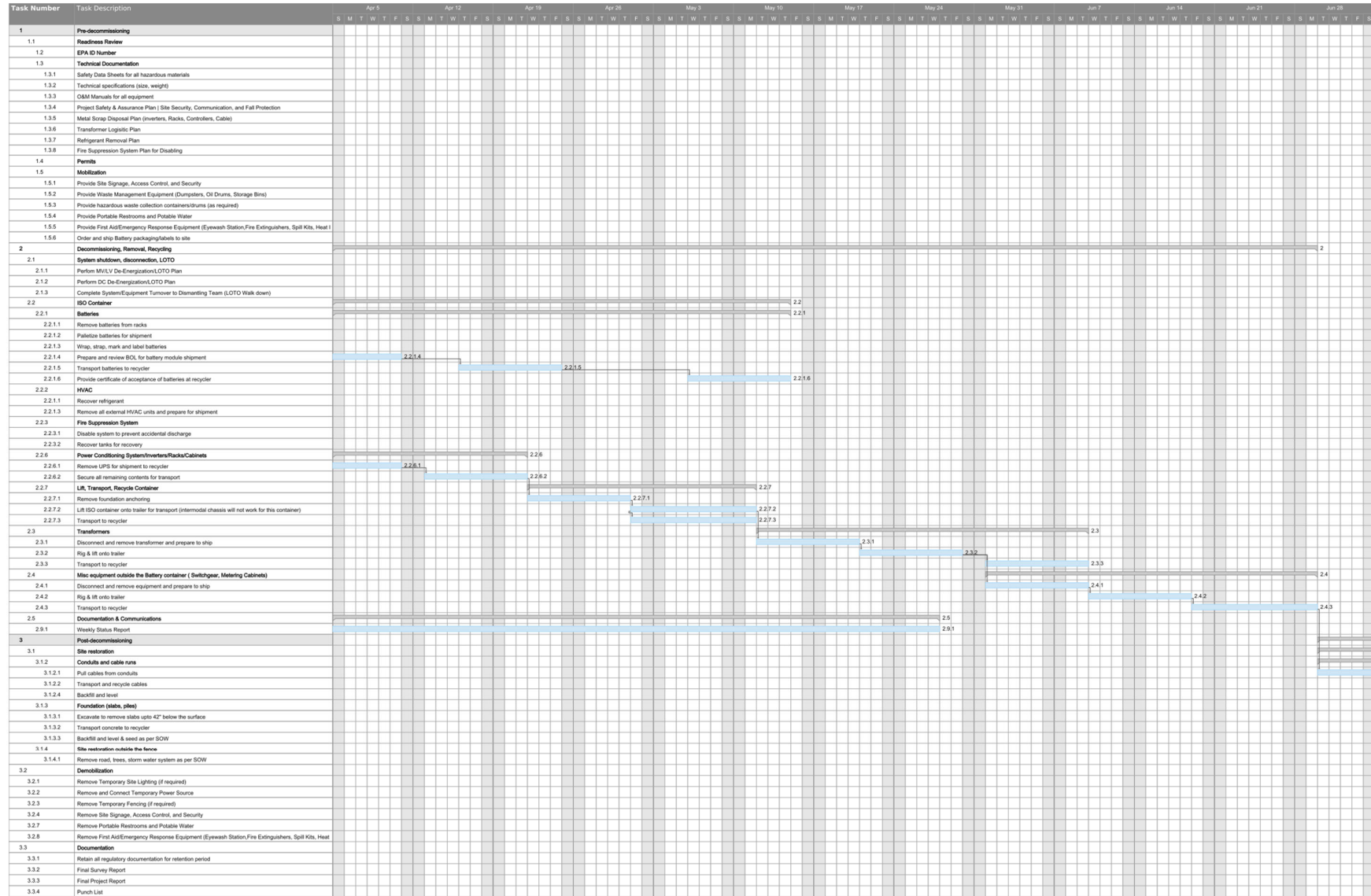
Equipment Removal:

One (1) licensed crane operator
One (1) licensed rigger
Two (2) signal workers
Two (2) laborers
Truck operators

Site Restoration:

Four (4) machine operators (excavator and dozer)
Six (6) laborers
Truck operators

Example Decommissioning Schedule (cont)



APPENDIX 3 – Example Equipment and Tools List

Material Handling	10T Reach Forklift
	50T Crane
	Manual Lift, 2000 lb capacity for battery pack removal
	Large metal recycling bins
	Large scrap bins
	Backhoe/Loader
Temporary Facilities	50 kW portable generator
	Temporary internal/external lighting
	Restrooms
	Eyewash station
Packaging Materials	88" x 36" pallets
	55 gallon metal drums
	Shrink wrap
	Plastic banding and bander tool
Equipment	PPE (HRC3 for battery string cable removal)
	Insulated Gloves, Class 0 per 29 CFR 1910.137
	Insulated hand tool set
	Hand power tools
	HVAC refrigerant collection
	Fire suppression collection

APPENDIX 4 – BESS Decommissioning Estimate

Activity	Est Total 2025		
Total estimated cost for battery removal, packaging and shipping batteries to recycling facilities, including rental equipment	\$2.07M		
Total estimated cost to recycle batteries	\$4.32M		
Total estimated cost to remove balance of plant equipment (inverters, switchgear, transformers, HVAC etc.) & battery containers	\$1.02M		
Total for site restoration (concrete removal, digging up to 2ft below grade and restoring site to original condition)	\$1.38M		
Total estimated cost to decommission and recycle BESS facilities	\$8.79M		