PETITION BY KEY CAPTURE ENERGY FOR A DECLARATORY RULING, PURSUANT TO CONNECTICUT GENERAL STATUTES §4-176 AND §16-50K, FOR THE PROPOSED CONSTRUCTION AND OPERATION OF A 4.99 MW BATTERY ENERGY STORAGE SYSTEM LOCATED AT 100 SALMON BROOK ST, GRANBY, CONNECTICUT

Prepared for:

The Connecticut Siting Council

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SECTION 1. PETITIONER INFORMATION

Key Capture Energy ("KCE" or "Petitioner") is an experienced developer, owner and operator of battery energy storage projects. KCE was founded in 2016 as a utility-scale battery energy storage company headquartered in Albany, New York, with additional offices in Houston, Texas, and New York City. KCE seeks to identify, develop, construct, and operate battery energy storage solutions to foster greater deployment of renewable energy, create a more stable electric grid, and provide value to all customers. KCE will have 623 MW of operating projects by the end of 2024 and has a development pipeline of over 9,000 MW in markets across the country. SK E&S Co. Ltd., KCE's parent company, has deployed over $2 billion in investment capital in energy storage, electric vehicle charging, hydrogen, and distributed generation in North America. The KCE CT 11 Battery Energy Storage System ("BESS") Project (the "Project") is being proposed by KCE CT 11, LLC, a wholly owned subsidiary of KCE.

1.1 Petitioner

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1.3 Project Purpose and Need

Petitioner is seeking a declaratory ruling from the Connecticut Siting Council ("CSC") that a Certificate of Compatibility and Public Need is not required for the development of the Project in Granby, Connecticut. This Petition is submitted pursuant to Connecticut General Statutes ("CGS") §4-176 and §16-50k and in response to the Connecticut General Assembly's June 2021 passage of Public Act No. 21-53 "An Act Concerning Energy Storage". Connecticut's Public Utilities Regulatory Authority ("PURA") set ambitious

goals for Connecticut's energy storage capacity by targeting energy storage incentives for commercial, industrial, and residential customers as a result of this legislation.

SECTION 2. PROJECT AND PROPERTY DESCRIPTION

2.1 Project Setting

The Project is a proposed 4.99 MW BESS located at 100 Salmon Brook Street Granby (the "Property"). The Property is a 4.85-acre lot also known as Tax Parcel ID 101263 in Granby. The Project will occupy approximately two (2) acres ("Project Area") of the 4.85-acre Property. The Project is located within a vacant parcel in an area identified as Business Zone (C2) on the Town of Granby Zoning Map (updated June 2014). See, Figure 1 and Figure 2. with an adjacent industrial zone to the south and east. The Property is in a rural industrial portion of town west of Salmon Brook and along US Highway 202 (Salmon Brook Street). Figures 3.1 and 3.2 depict the existing conditions, including neighboring properties and topography. The Project will be centrally located within the Property with access from the north via a deeded right of way from Mill Pond Drive with interconnection to the west with the point of interconnect being direct tap to roadside distribution lines on Salmon Brook Street. Exhibit A depicts the civil design and site plan for the Project.

2.2 Project Purpose

Connecticut Public Act 21-53 was published in June 2021 and established the goal of reaching 1,000 MW of energy storage in Connecticut by 2030. This Project is proposed for development in response to this legislation and the anticipation of future incentives being developed by PURA for energy storage systems that will help to achieve Connecticut's ambitious goals for development of renewable energy in the State.

The details of the PURA incentive program are still in development. The Project will seek to participate in the incentive program once released. In addition, the Project has also obtained Capacity Supply Obligations ("CSO's") through the ISO-NE Forward Capacity Auction 18, with CSOs to be delivered June 2027 through June 2028. Depending on the structure of the incentive program, KCE may also seek to participate in the ISO-NE wholesale energy markets and frequency regulation markets.

2.3 Project Benefits

Battery energy storage provides several benefits that will help to modernize and stabilize Connecticut's electrical grid, including:

- Enhancing power reliability;
- Servicing (shaving) peak demand;
- Enabling greater penetration of renewable energy; and
- Deferring expensive transmission and distribution infrastructure upgrades.

The State recognized these benefits in Public Act 21-53, which incentivizes front of the meter ("FTM") projects on the distribution network. The Project is being developed in response to the State goals as an FTM project and will interconnect to the Eversource 23 kV NE Simsbury 43F3 circuit distribution system

via a primary service. The Project provides another benefit through its participation in the ISO-NE Forward Capacity Market and has received obligations to operate as a resource that can provide electric capacity as needed during capacity scarcity events.

The Project's electricity will be used for several purposes, each of which represents a different market sector, including:

- Shifting time of day supply and demand by utilizing the purchase and storage of excess energy at times when area generation exceeds demand and then selling energy back into the grid when demand exceeds generation. This is a scenario frequently seen given the increase of solar generation when excess electricity generated midday is not available during the high-demand evening hours;
- Providing capacity supply to the ISO-NE markets to ensure reliability during electrical scarcity events; and
- Providing frequency regulation to limit the level of system disruption due to large injections or withdrawals of electricity from generators and high-volume users.

The Project is located at an area on the distribution network with appropriate charging and injection capacity to allow a project of this size to operate. The Project will be able to support the future build out of renewable intermittent energy in this rural area of the grid. The Project will be able to indirectly benefit the electric system due to its availability to charge from resources that may be generating at a time of low demand and make the energy available during periods of high demand. As a stand-alone facility, the BESS will be able to provide this benefit with a variety of generation resources adding greater flexibility for the system.

The Project location will have little impact on surrounding properties. When the Project is built, a buffer of trees and natural vegetation of approximately 250 feet will be left between the Project and Salmon Brook Street to the west, and a buffer of trees and natural vegetation of 30-50 feet will remain between the Project and the businesses to the north. To the south is a 300 foot plus wooded span with a ravine between the Project and adjacent properties. The remote location away from homes and surrounded by wooded areas will ensure the Project does not impact the surrounding area during typical activities.

2.4 Project Description

The 4.99 MW/19.96 megawatt- hour ("MWh") BESS will include two power electronic inverters with eight Canadian Solar SolBank 3.0 battery containers. Exhibit B includes the technical specifications for this equipment. KCE designated Sungrow ST 2752UX-US system as the battery choice when the Project interconnection request was initiated in May of 2023. KCE recently updated the technology choice to use the Canadian Solar SolBank 3.0 system. KCE is currently obtaining approvals from Eversource for this modification.

The energy storage system consists of 314 Ah Lithium Iron Phosphate ("LFP") Prismatic Cells installed in battery racks and connected in series and in parallel. The batteries will be housed within battery containers constructed on concrete piers. They will be connected to inverters via underground conduit. The battery modules and cooling system are fully encased in IP55 containers. The cooling system uses a

mixture of 60 percent ethylene glycol and 40 percent water and includes an anti-leak design with liquid sensors placed throughout the container and a pressure differential sensor in the coolant line actively monitoring for leaks. In the event a leak occurs, plant operators will instantly be made aware of the sensor status changes from the KCE SCADA system and will follow plant containment procedures which may include shutting down the effected system. The container itself acts as a secondary containment system capable of storing up to 50 liters of liquid coolant inside the container. The container is sealed to contain all fluids within the containers. Any coolant that leaks from the system within the container will be drained using specified pre-installed valves to allow disposal of any leaked fluids without loss of fluids to the environment.

The Project will include an auxiliary power skid, switchgear, and control house, placed and secured on an engineered foundation system consisting of either concrete piers, piles, or slab/mat foundation. An eight-foot-high chain link security fence which meets applicable electric codes will surround the facility. Security at the site will be similar to typical utility substations and will be provided by the fence, a locked gate, motion-activated lighting, and security cameras. The maximum height of all facility equipment onsite excluding electrical line poles will be less than three meters (9.8 feet).

The Project's 23kV generation tie-in will be installed as an overhead line that runs west from the Project and will interconnect via a direct connection to the Eversource 23 kV NE Simsbury 43F3 circuit distribution system via a primary service in Granby. The Project will export energy at 23kV, so there will be no need for an additional main step-up transformer or substation.

The Project will be operated by a third-party Remote Operation Center contracted by KCE to respond to market signals and opportunities. Dispatch will be conducted in response to these opportunities. Any variation of this may occur in response to capacity supply obligations received by ISO-NE. The Project may also choose to enter into a contract with an entity to provide specific services before or during the operations period. Any such contact may include additional terms and requirements for dispatch management.

Petitioner submitted a request for a pre-application meeting for the Project with Connecticut's Department of Energy and Environmental Protection ("DEEP") on July 18, 2024. It is expected this meeting will be scheduled within two weeks of submittal of the request. Petitioner intends to meet DEEP's standards for air and water quality and the protection of the environment.

2.4.1 Site Access

The Project will be accessed from the north through a deeded access easement from Mill Pond Drive. Figure 2 depicts the proposed Project overlain on aerial imagery.

2.4.2 Equipment and Energy Storage Capacity

The Canadian Solar batteries will be housed in metal storage containers equipped with cooling systems, fans, and electrical equipment. Specification sheets for the Canadian Solar BESS are provided in Exhibit B.

The Project will have a maximum export capacity of 4.99 MW with a four-hour duration allowing a maximum delivery of 19.96 MWh. The proposed BESS will include:

- Two FP4200K4 Power Electronic inverters and two pad mounted 660 V / 23,000 V MVTs;
- Eight Canadian Solar SolBank 3.0 battery containers;
- One auxiliary power skid;
- One control house;
- Maximum height of all facility equipment onsite (not including electrical line poles) will be less than three meters;
- An eight-foot-high chain link security fence with a strand of barbed wire;
- A new access road capable of supporting emergency vehicles and responders originating from Mill Pond Drive;
- A 23kV generation tie-in will be installed as an overhead line running west from the Project to Mill Pond Road and interconnecting via a direct connection to the Eversource 23kV 15M3 circuit; and
- The Project will export energy at 23kV, so there will be no need for an additional main step-up transformer or project substation.

The proposed system design includes an excess of containers/energy to prevent a full depletion of batteries, cover electrical loss, supply auxiliary loads, and to cover degradation loss over the system's life. To meet POI energy requirements throughout the Project's life, the Project is designed to maintain additional energy storage. Our analysis concludes that eight SolBank 3.0 containers will satisfy the Project energy storage goals with an estimated 20-year life.

Each inverter unit is manufactured by Power Electronics paired with a pad-mounted step up transformer. The inverter step up transformer can have different high side voltage ratings and winding configurations. For this Project, the high side of the inverter step up transformer will be ordered at 23kV.

An Auxiliary Power Transformer will be installed with the Project to reduce the voltage from 23kV to 480 volts at the point of interconnect for use by the BESS mechanical and maintenance systems, which is largely comprised of the HVAC system.

After the Project has received full approvals, the EPC contractor selected to oversee the construction of the Project will choose the best method for establishing concrete pads and foundations based on the Project construction engineering plans.

The facility can charge and discharge between 0 and 4.99 MW. The energy management system divides the total QSE/ISO power setpoint between each power-conversion-system evenly or in a manner that would allow the plant to discharge evenly. In fast frequency response priority mode, the facility may reach full output within 250 milliseconds of the dispatch signal. In normal reserves priority (P or Q priority mode), the facility ramps to full power output within an agreeable time with the transmission system operator depending on the desired ramp rate. The fastest the facility can take to fully recharge 19.96 MWh with 4.99 MW charge at POI, is 4 hours and 40 minutes.

2.4.3 Electrical Interconnection

The Project will interconnect to the local electrical distribution system at the nearest power pole to 100 Salmon Brook Street. The new service will consist of approximately three new poles, a recloser, a primary meter, and a real time automation controller ("RTAC"). The recloser is operated remotely and manually.

All equipment located behind the primary meter, except the RTAC, will be owned and maintained by the customer. The Project anticipates a 50-foot-wide powerline pathway along the interconnection route depicted in Figure 4.

The Project filed an interconnection request on May 8, 2023 with The Connecticut Light and Power Company d/b/a Eversource Energy ("Eversource") and has been assigned project number INT-80118. The Project executed a Feasibility Study Agreement with Eversource, a specially chartered Connecticut corporation, on August 3, 2023. The Project received the results of this report September 6, 2023 and then entered a system impact study on October 20, 2023. The system impact study report was received on May 24, 2024. An interconnection agreement was tendered by Eversource on May 7, 2024. The agreement is in negotiations with the expectation to be executed July 9, 2024. The final interconnection agreement will include the forementioned modifications from Sungrow to Canadian Solar equipment.

2.4.4 Site Control

The Project has a valid purchase option agreement. Documentation demonstrating Petitioner's purchase option is provided in Exhibit C.

SECTION 3. ENVIRONMENTAL CONSIDERATIONS

3.1 Air Emissions

Normal operations of the Project will not produce hazardous air emissions. Therefore, the Project will be in compliance with CGS Chapter 446c and an air permit will not be required. Liquid cooling systems used by BESS projects operate similar to a closed-loop air conditioner, where cool air is circulated and maintained within the enclosure. This system is made up of a fan, water pump, and ethylene glycol/water system.

Temporary air emissions from construction activities are expected and will include emissions from construction vehicles and equipment transportation. Implementing an efficient work sequence for construction activities, limiting idling times, and maintaining equipment properly will reduce these emissions. During periods when the existing access road will be constructed and the earth work for the Project site is prepared, the Project will have the potential to cause limited dust emissions. KCE will use a water spray to control dust emissions during construction as needed.

3.2 Water Resources

3.2.1 Wetland and Watercourse Analysis

Biologists from Flycatcher completed wetland delineations of the site in May 2024. Wetland delineations were conducted according to the US Army Corps of Engineers ("USACE") Wetland Delineation Manual and the Northcentral and Northeast Regional Supplement. Additionally, wetland and watercourses surveys were completed in accordance with DEEP's Inland Wetland and Watercourses Act and with the Town of Granby Inland Wetlands and Watercourses Regulations.

Flycatcher mapped one wetland and one watercourse within the Property. These resources occur in a ravine on the western portion of the Property. The watercourse flows out of a culvert along the northwestern boundary of the Property and flows south offsite and to Sumatra Pond to the east. Figure 5 depicts the results of the wetland and watercourse delineation effort; detailed information on the methods and results of the wetland and watercourse survey is provided in Exhibit D.

3.2.2 FEMA Flood zone

There are no mapped flood hazard areas within the immediate vicinity of the Property. Figure 6 depicts the known water resources present on the Property and surrounding area.

3.2.3 Aquifer protection areas

The Project does not intersect with areas mapped by the State of Connecticut as aquifer protection areas. However, according to the June 2014 zoning map, it does occur within the Town of Granby's aquifer protection overlay zone. The Town's Zoning Regulations allow use in the aquifer protection overlay zone, that are permitted in the existing underlying zones, except for specific uses that are listed in the Regulations. Energy generation and BESS are not within those listed exclusions.

Figure 6 depicts the known water resources present within the Project Property and surrounding area.

3.2.4 DEEP Groundwater classification

The proposed Project occurs within an area with a groundwater quality classification as GA (Figure 6). This means that designated use is for existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies.

3.2.5 Analysis of impact on resource

The Project will not require a source of water for operation. The water used for liquid cooling will be recycled through the system and will not require an outside source. Including the Project Area, access road and generation tie route, the Project proposes to clear two acres of forest, this includes approximately 1,500 square feet of clearing within the delineated wetland.

The generator tie in line that will bring power from the Project to the interconnection point on Salmon Brook Street will require 1,500 square feet of clearing of vegetation within the northern extent of the wetland onsite. This impact will be minimized to the extent practicable by leaving low growing shrub species and only clearing trees necessary to construct the electrical transmission line as well as the application of best management practices during the construction period.

The Town of Granby regulates activities with "significant impacts" within the 100 foot upland review area of wetlands and a 200 foot upland review area from watercourses. It is unlikely that this activity would meet the definition of a "significant impact" as no grubbing will occur within the upland review areas of these resources, and minimal soil disturbance will be required for the placement of utility poles within upland areas.

3.3 Soils

Two soil map units are mapped within the Property. Natural Resource Conservation Service ("NRCS") mapped soils are depicted on Figure 7. The proposed BESS footprint is sited within an area mapped as Merrimac fine sandy loam, 0 to 3 percent slopes which is mapped as prime farmland soil. None of the soils within the Property are classified as hydric, alluvial, or floodplain; however, hydric soils were observed within areas mapped as wetland (Figure 5).

In addition to auger borings for natural resource surveys, a geotechnical investigation will be completed in July 2024. The results of this investigation will be provided once completed.

3.4 Wildlife and Vegetation

3.4.1 Wildlife Habitat

The Property is undeveloped and is adjacent to commercial development to the north. The Property is forested and consists of second growth, mixed woods dominated by eastern hemlock *(Tsuga canadensis),* red maple *(Acer rubrum),* white oak *(Quercus alba),* American beech *(Fagus grandifolia),* and eastern white pine *(Pinus strobus)* in the uplands. The wetland mapped on site is dominated by eastern hemlock, green ash *(Fraxinus pennsylvanica),* yellow birch and red maple with common winterberry *(Ilex verticillata),* skunk cabbage *(Symplocarpus foetidus),* and spotted touch-me-not *(Impatiens capensis)* in the understory.

The intermittent stream flows from a culvert on the northwestern portion of the Property to the south within the floodplain wetland but is otherwise not impacted by human development within the Property.

3.4.2 Vernal Pool Surveys

A vernal pool survey was conducted on April 10, 2024. Definitions from Calhoun et al. (2005) and the USACE Connecticut General Permit (2021) as well as the presence of indicator species were used to make vernal pool determinations. Flycatcher investigated the Project Area for indicators of obligate vernal pool species during the spring amphibian breeding season. No vernal pools were identified within the Property.

3.4.3 Listed Species

State

The Connecticut DEEP Natural Diversity Data Base ("NDDB") maps general locations of endangered, threatened, and special concern species as well as rare natural communities across the state of Connecticut. The program uses species data based on information collected by NDDB staff, scientists, landowners and historic records to provide maps showing approximate listed-species locations for landowners and petitioners to reference as a Pre-Screening Tool. NDDB maps do not show exact locations to protect sensitive species but depict general locations as polygons with 'cross-hatching' over state maps.

Petitioner has consulted the NDDB program mapping for this area, and the Project does not intersect with areas mapped by NDDB according to the most recent maps, dated June 2024. An NDDB preliminary

determination request was submitted on July 23, 2024. A copy of this correspondence is provided in the Natural Resources Survey report in Exhibit D. Figure 8 depicts the proposed Project Area in relation to mapped NDDB polygons.

Federal

The Endangered Species Act, 16 U.S.C. § 1531 et seq. ("ESA") protects federally threatened and endangered wildlife. The U.S. Fish and Wildlife Service ("USFWS") and National Oceanic and Atmospheric Administration ("NOAA") Fisheries are the federal agencies responsible for administering the ESA. Typically, the USFWS is the lead agency in issues dealing with wildlife species and habitat, while NOAA Fisheries often takes the lead with marine fish species and habitat.

A preliminary species list was acquired using the USFWS Information for Planning and Conservation ("IPaC") system, which identified the endangered Northern Long-eared Bat *(Myotis septentrionalis*), and monarch butterfly (*Danaus plexippus*) that may potentially occur in the Project Area. The IPaC report also notes that there is no Critical Habitat within the vicinity of the Project Area. This Project does not anticipate that a federal permit, or further consultation with USFWS, will be required.

3.4.4 Vegetation

As stated above, up to two acres of forest will be cleared to construct and operate the Project. The forested areas predominantly consist of mature trees with a generally open understory. Common species include eastern hemlock, red maple, white oak, green ash, yellow birch and American beech along with saplings of the tree species occurring in the understory. Invasive species were observed around the edges of the Property and along the generation tie route including Asian bittersweet (*Celastrus orbiculatus*), Morrow's honeysuckle *(Lonicera morrowii),* rambler rose (*Rosa multiflora*), and Japanese barberry (*Berberis thunbergia*).

3.4.5 Analysis of impact on resources

Following the initial results of the natural resources survey it appears that the electrical interconnection to Salmon Brook Street from the BESS location would require 1,500 square feet of clearing within a freshwater wetland. To minimize impacts the wetland, the generation tie-route was sited to cross the narrowest portion of the wetland along the northern boundary of the Property. The proposed Project is sited on an upland peninsula to minimize additional clearing and grading of slopes adjacent to resources on the Property. Site access is from existing commercial development on the parcel to the north.

The Project team intends to consult with staff at DEEP to solicit feedback on the Project and the generation tie route crossing a wetland.

3.5 Cultural

A Phase 1A cultural resources survey was completed by Heritage Consultants in May of 2024. This included a pedestrian survey and photo-documentation of the survey area. Based on the results of the background research and site visit, Heritage recommended that a Phase 1B survey be completed in two sensitivity areas totaling 2.4 acres. The Phase 1B survey was completed in June 2024 utilizing 46 shovel test pits

within the sensitivity areas. Reporting from Heritage Consultants indicates that 81 post-European contact artifacts were discovered during this investigation. The post-European Contact components did not have significant concentrations from stratified soils or association with other cultural features and were characterized as unassociated field scatter. None of the components found during the Phase 1B investigation are eligible for listing on the National Register of Historic Places.

Both reports were submitted to the Connecticut State Historic Preservation Office ("SHPO") for review and concurrence. A response from the SHPO was received on July 19, 2024 confirming the findings of the surveys and stating that it is the opinion of SHPO that no historic properties will be affected by the Proposed Project. The Phase 1A and Phase IB reports and SHPO response are provided in Exhibit F.

3.6 Noise

To determine the proposed Project's compliance with Connecticut's regulations for the control of noise under CGS §22a-69, an acoustic analysis was completed by Epsilon Associates, Inc. In accordance with CGS §22a-69, the Project would be considered an industrial use (Class C). The sound level standards for industrial use projects are 51 dBA at the nearest residential (Class A) properties at night and 66 dBA at the nearest commercial properties.

The results of the study indicate that the highest sound level from the Project at a residential receptor is 50 dBA. The highest sound level from the Project at a commercial receptor is 59 dBA. The full analysis and report are provided in Exhibit G.

3.7 Visual

A visual impact cross section was created from the nearest residence, located at 109 Salmon Brook Street, Granby. As demonstrated in the cross section provided in Exhibit H, due to topography, existing vegetation, and other barriers, the BESS facility is likely to be entirely screened from Salmon Brook Street. The full results of VHB's visual impact analysis are provided in Exhibit H.

Based on publicly available data, the nearest designated scenic road is Main Street through Suffield Depot and is located approximately 7 miles north of the Project. The nearest public recreation area, the municipal Granbrook Park in East Granby, is 0.5 miles to the east of the site. The nearest State resource is the Mclean Game Reserve approximately 0.5 miles to the west. None of these resources are expected to have visibility of the Project based on proximity, landforms, and tree cover in the area.

SECTION 4. PROJECT CONSTRUCTION AND MAINTENANCE

4.1 Construction Schedule and Phasing

Petitioner anticipates that construction of the Project will begin during the summer of 2025 and will take approximately eighteen months to complete.

Once equipment is staged and temporary erosion and sedimentation controls are installed, the construction contractor will begin to build the concrete equipment pads and then install the batteries, inverters, and interconnection equipment. The perimeter fence and gate access will be installed with final grading and seeding as needed.

Table 1: KCE CT 11 Milestone Schedule

KCE CT 11 Milestone Schedule	
Interconnection	
Impact Study Report Received	5/24/2024
Interconnection Agreement Executed	7/9/2024
Permitting	
All Permits Secured (non-ministerial)	3/26/2025
Engineering	
90% Construction Eng. Design	1/2/2026
90% Interconnection Eng. Design	1/2/2026
Procurement	
BESS Supplier Contract Awarded	7/30/2025
Other Major Equipment Procured	5/14/2025
BESS Delivered to Site	6/30/2026
Construction	4/18/25-10/28/26
COD - Project Online	**10/27/2026**

4.2 Stormwater Management

It is anticipated that the Project will exceed 1 acre and will therefore apply for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from DEEP under CGS §22a-430b. The Project will include a permanent stormwater basin to treat water quality and to mitigate potential increases in post-construction peak rates of runoff. Existing drainage patterns on the site will remain as is.

A stormwater report for the Project is provided in Exhibit I.

The plan set provided in Exhibit A outlines the best practices for erosion and sediment control to be implemented during the construction phase of the Project.

Under existing conditions, untreated stormwater runoff from most of the Project Area generally flows east or west off of the existing ridgeline towards wetlands downslope. Essentially all of the development area is comprised of forest. Generally, the Project Area is at its highest elevation center along the main ridgeline, and slopes away in each direction. The majority of the terrain slopes in the Project Area range from 1% to 10% with portions ranging up to 30% slope towards the wetlands.

In the proposed conditions, the stormwater management system for the Project has been designed to meet State standards described within the 2004 Connecticut Stormwater Quality Manual and the CTDEEP Stormwater General Permit, effective November 25, 2022. The system consists of stormwater management basins to the west, southwest and east of the Project. A seed mix of permanent turf forming grasses will be used to establish vegetation around the battery system to help stabilize the topsoil from

erosion, sequester nutrients and pollutants, and lower runoff rates. The only impervious surfaces created by the Project will be located on a de minimis square footage of equipment pads. Access roads that are proposed are planned to be constructed using gravel.

Post-construction stormwater runoff will be collected and conveyed to stormwater basins via an overland sheet flow, and then subsequently from the spillway to the existing slopes adjacent to the facility. Water quality treatment is provided in the basin and infiltration of stormwater runoff into the ground has been promoted to the maximum extent practicable. Information and computations regarding proposed conditions hydrology is contained in the Stormwater Report in Exhibit I.

4.3 Operations and Maintenance

Once the Project is operational, it will be continually monitored 24/7 by a remote operations control center ("ROCC"). The Project will be equipped with safety monitoring systems including Battery Management Software ("BMS"), Battery Control Interface ("BCI"), uninterruptable power supply ("UPS") and Energy Management System ("EMS") informing automated procedures and personnel through supervisory control and data acquisition ("SCADA") systems.

The BMS monitors battery status at the cell level in real time, including temperature, voltage, power level, fault, alarms, and protections, reports any faults, sends alarms to the control and monitoring system (BCI and EMS), and includes built-in UPS for monitoring during power outages.

The BCI controls the inverter and SolBank in real time, coordinates behaviors between these components, stops all inverter and SolBanks within the same energy station when there is a fire alarm, and minimizes fault impact.

The EMS monitors the status of all BESS equipment and reports any fault detected to the operator, and allows the service team to read and analyze operating data of the equipment, optimize system health and identify issues from an early stage.

Routine maintenance schedules will include work for on-site inspections and preventative maintenance. The schedule will include maintenance with the necessary frequency for adherence to all manufacturers' recommendations and applicable codes and/or laws. Occasional vegetative control, mowing, and snow plowing will be required to maintain the site and guarantee access throughout the year. An Operations and Maintenance Plan for the Project, including the Canadian Solar operations manual, is provided in Exhibit J.

The Project has drafted an Emergency Operations Plan ("EOP"), also provided in Exhibit J. The EOP is intended to be an operational document. The Project has also provided Safety Management Recommendations based on the most updated industry standards. KCE has sent a copy of the EOP and Safety Management Recommendations to the Granby Fire Marshal's office for review and feedback, and KCE will be in continued dialogue with the responding fire department and emergency responders through the development process. The EOP will continue to be refined as the Project goes through further iterations of engineering and design. Prior to construction of the Project, the plan will be finalized, and parties listed in the plan will have received the information, initial safety trainings, and debriefs as outlined in the EOP.

4.4 Public Health and Safety

The Project will be constructed to be in compliance with applicable National Fire Protection Association and other state and local safety standards. An eight-foot-tall chain link fence with a strand of barbed wire (altogether eight feet) will be installed around the perimeter of the Project. Additionally, the site will be monitored remotely twenty-four hours a day to allow for remote power shut-off and to notify local emergency responders if there is an issue. The Project will be continually monitored by the ROCC. The Project will be equipped with a safety monitoring system described in section 4.3, informing automated procedures and personnel through SCADA systems. The BMS monitors battery voltage, current, and temperature and continuously communicates with the ROCC. In the case of any out of the ordinary operational signal, the ROCC responds accordingly, including, when necessary, making notifications to KCE representatives, the utility, and/or first responders.

Petitioner has consulted with the Town of Granby, including representatives from the fire department and emergency response services. It is Petitioner's intention to continue this communication with the local emergency staff once the Project is operational to provide site-specific information and training in preparation for emergency response preparedness. The EOP is intended to be an operational document and will go through refinement upon further project design, engineering, and stakeholder input.

The Project qualifies as a Tier 1 facility by the United States Environmental Protection Agency ("USEPA") and, as such, must develop a self-certified Spill-Prevention, Control, and Countermeasure ("SPCC") Plan. A template SPCC Plan is provided in Exhibit J. The template has been provided with partial process and notification information as currently known. Final verified information will be completed upon final project approvals and design. The SPCC will be finalized and executed at that time.

During Project construction a site-specific Emergency Response Plan ("ERP") will be developed and implemented to protect the safety of construction personnel and Project staff. The site-specific information for emergency response will be included in this ERP.

The Project will implement best industry standards for public safety and emergency management, including the following:

General Security

The Project will employ the use of a locked security fence and recording security cameras. The Project will comply with the state compliance regulations as described in the CSC White Paper on the Security of Siting Energy Facilities under Compliance on page 4. The approach to BESS project security is similar to methods employed for existing utility transmission substations.

System Monitoring and Detection

Once the Project is operational, it will be monitored 24/7 by a ROCC. The Project will be equipped with BMS, informing automated systems and personnel through SCADA systems. The BMS has the ability to disconnect the system from the grid under certain conditions, as per the control system design. The first and most important line of defense for thermal runaway is the 24/7 ROCC monitoring using the BMS. The system is equipped to detect anomalies and ensure appropriate personnel are notified in response to any emergency condition. As needed, controls are designed to isolate modules, individual containers, or to fully shut down the system remotely.

In addition, each BESS container is equipped with:

- Fire Detection Heat and smoke detection – dual independent operation
- Gas Detection Combustible gas detection – dual independent operation
- Explosion Prevention & Mitigation
- Active air ventilation system with optional passive deflagration panels
- Fire Alarm Local strobes and bells, remote to master panel and EMS
- Backup Built-in UPS for 24+ hour backup for fire alarm, 2+ hour backup for ventilation
- Local Emergency Stop
- Coolant Leak Detection
- Interface with External Fire Panel, ethernet or fiber networking

The SolBank is equipped with smoke and heat detectors calibrated to detect early signs of fire within the SolBank. The spot-type smoke detector is calibrated to 3.5%/ft. The temperature threshold of the heat detector is 85℃. Both detectors are ceiling mounted as indicated in Figure 7. The SolBank contains both an audible fire alarm and visual fire strobe. If the smoke and heat detectors are triggered, both alarms will activate, and corresponding alarms will be sent to the ESS EMS, providing notification to the ROCC or other appropriate entity in order to initiate the appropriate internal response. In addition, alarms requiring dispatch of the local fire department will immediately be relayed to the local Fire Department dispatch station.

Fire Response

Training for local emergency responders prior to systems operation will be provided with a full review of these systems and guidance for the appropriate approach and recommended response actions. Training will be provided prior to construction, prior to commissioning, and once more prior to operations. Please refer to the Project's draft EOP. The EOP has been shared with local responders with a request for questions and comments. Further coordination will continue with local responders as the Project completes development and prepares for construction and operations.

Emergency response guidance for BESS facilities has been evolving with advances in safety testing, practices and lessons learned from operational experience. The protection of human life and surrounding structure/environment is of the highest importance. In concurrence with current industry guidance, KCE strongly recommends a containment strategy until any fire is exhausted while monitoring and protecting human life and nearby resources, and defensively firefighting from outside the fence line to protect outside property and structures. Response recommendations include avoiding applying water directly to the exterior of an affected BESS container, as this provides little benefit for fire response and may result in undesired run-off.

Water application should only be taken after clearance is authorized by appropriate KCE personnel. The system is designed to contain any incident to prevent any spread to further portions of the system as demonstrated through equipment stress and fire testing.

Any hose line operations should be limited to hose and master stream application from outside of the Project perimeter as far back as hose and stream ranges allow. The decision to provide thermal cooling via hose lines would only be made by the System Owner / Operator and any other required SMEs with consultation with the local emergency responders. Typically, once emergency responders arrive, they control the site from that point on.

In all instances, power shut down and isolation involving any high voltage feeder lines must be confirmed before any defensive measures are taken involving application of water to the site.

Management of Gases

Each SolBank 3.0 unit is equipped with gas detection and a NFPA69 rated active ventilation system with optional NPFA68 deflagration panels designed in accordance with NFPA 69 to remove gases from the container to prevent unsafe concentrations within the container. The SolBank is equipped with a combustible gas detection sensor and two off-gassing valves. The combustible gas detector is calibrated to 10%-20% LEL. If the combustible gas sensor is triggered, both alarms will activate, and the two off-gassing valves will be opened for exhaust. Corresponding alarms will be sent to the EMS.

Management of Chemical Runoff

The SolBank 3.0 is an IP 55 rated container equipped with pressure differential and water sensors. These sensors will send a signal to the plant SCADA notifying operators of a leak. Operators can respond by following the site-specific plan which may include stopping the leaked system from operating until a technician can repair the leak and properly dispose of fluids on the bottom of the IP 55 container.

The Project will be using the FP4200K-series converter with pad mounted Medium Voltage Transformers which are an oil-type transformer. These transformers use VG-100, a fully biodegradable dielectric fluid. Transformer documentation is included in Exhibit B- Equipment Specifications/ VCC Instruction Manual_IEEE_EN_2022.

Any VG-100 that infiltrates the soil onsite is biodegradable, non-hazardous, non-toxic and will be cleaned up in accordance with the site specific SPCC plan. Any VG-100 on impervious surfaces will properly be cleaned up in accordance with the site specific SPCC plan. All soiled absorbent materials and collected VG-100 will be disposed of in accordance with all State and Federal regulations and the site-specific SPCC Plan.

Electric and Magnetic Fields (EMF)

BESS EMF emissions are expected to be similar to those of transmission substations with respect to 60-Hz magnetic fields; as such, the sources inside the BESS facility are not expected to be substantial sources of 60-Hz magnetic fields outside the facility. The transmission and distribution lines entering and exiting the facility are the dominant sources of EMF at the Property line and beyond. In the case of the Project, the generation tie line that is connecting the Project to the point of interconnect on Salmon Street has the same 23kV rating as the existing roadside line and will not create any greater level of EMF than already exists at this location or across most areas of the State.

4.4.1 Federal Aviation Administration Consultation

The Federal Aviation Administration ("FAA") Notice Criteria Tool indicates that the Project does not exceed notice criteria for the permanent development nor for the temporary cranes up to 100 feet height and a Request for Determination to FAA is not required. The results of this analysis are provided in Exhibit K.

4.5 Decommissioning

A decommissioning plan, developed by Petitioner, explains the process and costs associated with decommissioning the Project once it is no longer in use and restoring the site to its former condition. The full decommissioning report is provided in Exhibit L.

SECTION 5. OUTREACH

Petitioner has met with representatives of the Town of Granby. Documentation of outreach is provided in Exhibit M. Additionally, as described earlier, the Project team completed a pre-application meeting with the DEEP concierge service and solicited feedback on the Project. A summary of the pre-application meeting is provided in Exhibit M.

Abutting property information is provided in the existing conditions survey in Figure 3. Project abutters have been notified of the Project via certified mail, with mailing logs provided in Exhibit M.

Table 2 lists the outreach completed by Petitioner for the Project. Copies of records and notes from individual meetings and other correspondence are included in Exhibit M.

Table 2: Record of Outreach

Record of Outreach for KCE CT 11		
Date	**Purpose**	**Attendees**
6/25/2024	Project introductory meeting	Abigail St. Peter Kenyon, Director of Community Development; Kurt LaFlamme, Captain of Police Department; Brian Long, Fire Marshal; Scott Sansom, Chief of Police; Joel Skitton, Building/Zoning; Michael Walsh, Town Manager
6/25/2024	Project fire/safety introductory meeting	Kurt LaFlamme, Captain of Police Department; Brian Long, Fire Marshal; Scott Sansom, Chief of Police
6/26/2024	DEEP pre-application meeting	Lee Hoffman; Melanie Bachman; Tom D'Aguiar; Steve Kochis; Jessie Hutchinson; Jeff Shamas; Liana Feinn
7/23/2024	Project notification	Letter notification of proposed Project to the Town of Granby
7/23/2024	Project notification	Letter notification of proposed Project to abutting property owners.
7/23/2024	Review of Emergency information and response plans	EOP sent to the Town of Granby Fire Marshal for review and comment.
8/5/2024	Project Introductory Meeting	Per the request from town officers during the 6/25/2024 introductory meeting, KCE will present the details of the Project to the Granby Board of Selectmen during the scheduled August meeting.
8/7/2025	Project Public Open House	Per the request from town officers during the 6/25/2024 introductory meeting, KCE will provide a public presentation of the project details and be available for questions following the Granby Board of Selectmen August meeting.