LINCOLN PARK GRID SUPPORT CENTER (LPGSC) STATE ENVIRONMENTAL QUALITY REVIEW COMPARISON OF POTENTIAL ENVIRONMENTAL IMPACTS ORIGINAL PROJECT VS REVISED PROJECT

POTENTIAL IMPACT	ORIGINAL PROJECT	REVISED PROJECT	CHANGE
PROJECT DESCRIPTION			
Comparison of project description for original project and revised project	 Natural gas-fired plant Reciprocating engine generator system (two combustion engines) in 40-foot-tall (9,145 square feet (SF)) steel Butler building Substation Central Hudson Gas & Electric (CHG&E) transmission infrastructure Underground gas connection 80-foot high exhaust stacks (2) Operation 6 to 14 hours per day Ultra low-sulfur diesel storage tank for fuel back up system Cooling equipment Reagent storage tanks Transformers Water supply well or water line extension Subsurface drainage system Office for ≤ 4 employees 20 megawatt (MW) 9-11 containerized battery systems 5-10 megawatt hours (MWh) combined battery system capacity 24-hour operation 8-10 inverter pads Access area and drive Stormwater management facility 	 20 MW battery array within a 35-foot-tall 30,000 SF building 25,000 battery modules with a combined capacity of approximately 80 MWh 8-10 inverter pads Cooling equipment CHG&E Structure, transformer, grid connection infrastructure 24-hour operation Unmanned Access area and driveway Stormwater management facility 	Project significantly reduced in scale.

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REQUIRED APPROVALS/PERMITS			
Comparison of approvals/permits required	 Town Board for Site Plan and possible approval of Out-of-District water line extension agreement Planning Board for advisory opinion to Town Board, lot consolidation, MS4 acceptance Ulster County Department of Health (UCDOH) for possible water supply well and Subsurface drainage system design approval, possible waterline extension Ulster County Department of Public Works (UCDPW) for Highway Work Permit Ulster County Industrial Development Agency (UCIDA) for Payment-in-Lieu-of-Taxes (PILOT) agreement Ulster County Planning Board (UCPB) for 239m review New York State Department of Environmental Conservation (NYSDEC) for minor source air permit, bulk petroleum storage registration, waste oil storage, GP-0-15-002, consultation on regulated species, section 401 water quality certificate New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) for Consultation on Historic and Cultural Resources United States Army Corps of Engineers (USACOE) Nationwide Permit United States Fish and Wildlife Service (USFWS) Consultation on regulated species New York State Public Service Commission (NYSPSC) for transmission connection 	 Town Board for Site Plan Planning Board for advisory opinion on site plan, lot consolidation, MS4 acceptance UCDPW for driveway approval, highway work permit UCIDA for PILOT agreement UCPB for 239m review NYSDEC for GP-0-15-002, Consultation on regulated species NYSOPRHP for Consultation on Historic and Cultural Resources NYSPSC for transmission certificate of public convenience and necessity New York State Energy Research and Development Agency (NYSERDA) for energy storage incentive Federal Energy Regulatory Commission (FERC) for market-based rate authority and exempt wholesale generator status approval 	Significant reduction in required permits/approvals and consultations.
SOILS AND GEOLOGICAL IMPACTS			

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Cut and fill	4,622 cubic yards net cut	Project requires less overall ground disturbance and due to simplified project components, the need for cutting is less; therefore, the site will be more balanced for cut and fill quantities.	Reduction in area of disturbance of 3.99 acres. Cut and fill quantities will be more balanced than original project.
Impervious	2.30 acres	1.39 acres	Reduction in impervious surface of 0.91 acre.
Area of disturbance	5.95 acres	1.96 acres	Reduction in area of disturbance of 3.99 acres.
Slopes analysis	1.04 acres of the disturbance area have slopes of 15 to 25%, 0.19 acre of disturbance area has slopes of 25% or more.	0.1 acre of the disturbance area have slopes of 15 to 25%, no disturbance area on slopes of 25% or more.	Reduction in disturbance of areas of slopes >15% to 25% by 0.94 acre. No disturbance area on slopes of 25% or more.
Potential for blasting	Project would likely require blasting.	Revised project requires less ground disturbance; therefore, less likely to require blasting.	Reduced potential for blasting.
SURFACE WATER AND WETLAND RESOURCES			
Stormwater	Disturbance of greater than one acre; Stormwater Pollution Prevention Plan (SWPPP) required. Construction of stormwater management facilities to mitigate effects of 2.3 acres of impervious ground cover.	Disturbance of greater than one acre; Stormwater Pollution Prevention Plan (SWPPP) required. Construction of stormwater management facilities to mitigate effects of 1.39 acres of impervious ground cover.	Reduced impervious will result in reduced stormwater and related infrastructure.
Wetland/stream impacts	0.09 acre impact to USACOE wetland for access drive.	No disturbance to wetlands.	No wetland disturbance.
GROUNDWATER DEMAND			
	Operation requires 48 gallons per day. Fire flow needs met through proposed water line extension.	Operation requires no water demand. Fire flow needs met through chemical fire suppression system. Cooling needs met via closed loop system.	The facility will be unmanned; therefore, no water demand will occur and related need for infrastructure (e.g. water well or water line extension) is precluded. Fire prevention will be met through chemical fire suppression system. Cooling needs met via closed loop system.
WASTEWATER GENERATION	•		
	48 gallons per day.	No wastewater generation.	The facility will be unmanned; therefore, no wastewater will be generated and related need for infrastructure (e.g. septic system) is precluded.

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VEGETATION AND WILDLIFE				
Vegetation removal	Clearing of 5.95 acres of forested area.	Clearing of 1.89 acres of forested area.	Reduction in area of disturbance of 4.06 acres.	
Habitat	Project area contains trees over 3" diameter above breast height (dbh) that could provide summer roosts for Indiana Bat and Northern Long-Eared Bat. Tree removal would be restricted to the period between November 1 and March 31 to avoid impacts to the bat species, as during this time, the bats would be hibernating and not present onsite. No suitable habitat for Bog Turtle.	Project area contains trees over 3" dbh that could provide summer roosts for Indiana Bat and Northern Long-Eared Bat. Tree removal would be restricted to the period between November 1 and March 31 to avoid impacts to the bat species, as during this time, the bats would be hibernating and not present onsite. No suitable habitat for Bog Turtle.	Reduction in clearing of forested area by 4.06 acres, which would reduce the overall number of potential suitable roost trees that may be removed.	
Species	Potential for Bog Turtle (Federally threatened, State endangered); Indiana Bat (Federally and State endangered); Northern Long-Eared Bat (Federally and State threatened).	Potential for Bog Turtle (Federally threatened, State endangered); Indiana Bat (Federally and State endangered); Northern Long-Eared Bat (Federally and State threatened).	Overall project site remains unchanged; therefore, no difference between original and revised project.	
Significant natural communities	None	None	None	
CULTURAL RESOURCES				
Historic or archeological sites	No National Register of Historic Places or State Register of Historic Places Listed or Eligible resources located on or substantially contiguous to the LPGSC project site. No archeological sites on the LPGSC project area.	No National Register of Historic Places or State Register of Historic Places Listed or Eligible resources located on or substantially contiguous to the LPGSC project site. Precontact remains (15 pieces of lithic debris and two cores) discovered during Phase 1B, Phase 2 underway.	Archaeological resources exist on the LPGSC project site; further testing is being undertaken and will be provided to the Town and NYSOPRHP for review. No significant adverse impacts to archaeological resources are anticipated as the Applicant will work with NYSOPRHP to satisfy concerns and will meet applicable laws and regulations.	
VISUAL RESOURCES				
Visual	Project included two 80-foot high exhaust stacks for fuel combustion with the potential for visibility of the plume and/or water vapor. 40-foot tall building compliant with zoning.	No exhaust stacks. 35-foot tall (or less) building compliant with zoning.	Reduced visual impact by removal of power generation infrastructure.	
TRAFFIC				

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Trip generation	Based on a maximum of 4 employees an anticipated 4 am peak hour trips, 4 pm peak hour trips anticipated 1 fuel truck delivery per day.	No dedicated on-site personnel.	Elimination of daily employee traffic and fuel truck delivery traffic.
Sight distances	Measured sight distance (looking right) less than American Association of State Highway and Transportation Officials (AASHTO) desired intersection sight distance. Sight distance (looking right) exceeds required stopping distance; therefore, the available distance would not be critically limited.	Sight distances are met for AASHTO desired intersection sight distance and the County's required stopping distance.	Project meets AASHTO desired intersection sight distance and the County's required stopping distance.
Construction traffic	Traffic generation during construction includes employees and construction equipment.	Traffic generation during construction includes employees and construction equipment.	Reduction in area of disturbance of 3.99 acres and reduction in scale of project. Therefore, reduction in construction employees and equipment and construction traffic.
LAND USE AND ZONING			
	Office-Manufacturing (OM) Zoning District; LPGSC is permitted use as "public utility." Surrounding uses include are other industrial uses including a closed landfill with an above-grade solar array, a solid waste facility, gas measuring station and a mine/quarry.	OM Zoning District; LPGSC is permitted use as "public utility." Surrounding uses include are other industrial uses including a closed landfill with an above-grade solar array, a solid waste facility, gas measuring station and a mine/quarry.	Intensity and scale of revised LPGSC is reduced and will continue to be consistent with land use and zoning.
HAZARDOUS MATERIALS			
Waste lubricating oil and reagent	A small amount of these products would be required including storage facilities.	These are not required for the current project.	Elimination of waste lubricating oil and reagent and storage facilities.
Bulk petroleum storage	50,000-gallon bulk petroleum above-ground storage tank for diesel fuel.	No bulk petroleum storage is needed for current project.	Elimination of bulk petroleum storage.
Hazardous materials	Lube oil and glycol wastes generated would be pumped out and removed from the site by a specialized recycling and disposal contractor. Battery stability system would be constructed and operated according to applicable codes and regulations, and external spill containment is not necessary as the technology is equipped with an internal containment system.	Battery stability system would be constructed and operated according to applicable codes and regulations, and external spill containment is not necessary as the technology is equipped with an internal containment system. Glycol waste to be disposed of by specialized recycling and disposal contactor off-site at approved disposal facility.	Elimination of lube oil waste.

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Comprehensive Spill Prevention, Control and Countermeasures (SPCC) Plan	A Comprehensive Spill Prevention, Control, and Countermeasures (SPCC) Plan was required to minimize the potential for any spills, and to contain and respond to impacts of any spills that occur.	No SPCC Plan required as there are no hazardous materials requiring external spill containment.	Need for a SPCC Plan is eliminated.
AIR RESOURCES			
Air emissions	NYSDEC minor source air permit required for primary emissions of carbon dioxide (CO2), nitrogen oxides (NOX), and carbon monoxide (CO), plus minor emissions from the diesel fire pump and fuel gas heater, if required.	Project requires no fuel combustion or exhaust stacks and will not result in any emissions. No air permits required.	Elimination of the need for air permits.
NOISE			
Construction activities	Temporary noise above local ambient levels would occur during construction activities, which will be limited to the hours of 7:00 am to 9:00 pm on Monday thru Saturday.	Temporary noise above local ambient levels would occur during construction activities, which will be limited to the hours of 7:00 am to 9:00 pm on Monday thru Saturday.	Reduction in area of disturbance of 3.99 acres and reduction in project scale. Therefore, reduction in construction employees and equipment, construction traffic and related temporary noise effects. LPGSC will located further from residences.
Operation	The operation of the facility would generate noise above local ambient noise levels. Nearest residence is 725 feet from LPGSC site.	Project will emit minimal noise from the inverters and cooling system. Nearest residence is 1,450 feet from LPGSC site.	Minimal operational noise.
ODOR	•		
	Intermittent fugitive odors may occur during loading of diesel, lube oil, and reagent storage tanks.	No odors will be produced by the project.	Elimination of odors and need for odor- reducing equipment

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