

## 1. Overall Project Summary and Approach

### a. Description of GHG Reduction Measures

The Village of Sea Cliff Municipal Complex HVAC project will completely replace the 50+ year old gas boiler system in use with a fully modern one that is both cost and environmentally efficient. The project entails scoping, planning, and implementation phases to ensure maximum efficiencies are achieved.

The Municipal Complex itself is a landmarked 110 year old Late Gothic Revival church repurposed in 1970 to become the Village's administrative offices, Library, and Museum. The HVAC configuration consists of 3 boilers and a chiller-condenser interfacing with an air handler to individual PTAC type registers located throughout the 20,000 square foot facility. There is no precise temperature modulation; the system provides "hot" air in the cold season and "cool" air in the warm season. "Zones" are controlled by physically turning individual registers on or off.

Tasks for the project include:

- Scoping: an assessment of available and appropriate HVAC methods and equipment. Milestone: determination of the best option for the Complex.
- Planning: architectural and engineering drawings will be produced to accommodate the chosen system. Milestone: complete plans for HVAC installation.
- Implementation: installation of the system will be overseen by the engineering consultant. Milestone: successful activation of the new system.

Beyond the urgent need to replace the existing system with a modern one, the planning and implementation must take into consideration preservation of the landmarked structure and the physical challenges of retrofitting HVAC into the building.

The project will enhance local resilience by allowing the Complex to become an emergency warming/cooling center to the benefit of all residents, especially elderly and low/moderate income households.

This GHG reduction measure aligns with Priority Measure 3.5: Create Green and Resilient Public Facilities in the CPRG PCAP for New York State. The project will reduce emissions to the region, including neighboring communities identified as disadvantaged. The Village will work together with Energy Performance Contractors (EPCs) identified by the New York State Energy Research and Development Authority (NYSERDA) to ensure the project meets all requirements of the Priority Measure. This measure was selected to address serious ongoing issues with the function of the HVAC system at the Village's largest municipal building which is becoming increasingly inefficient over time.

### b. Demonstration of Funding Need

The scope of essential, suitable renovations to the HVAC system at the Complex has grown beyond the limited financial resources available. State imposed tax caps have limited the Village's overall ability to generate revenue. Weather event recovery from recent years has drawn local resources away from other Village infrastructure repairs. Maintaining the

inefficient boiler system has become an exercise in futility; expensive, frequent repairs are temporary in nature and continue to contribute to GHG emissions in the region. The project requires specialized planning and implementation sensitive to the needs of an architecturally significant building and is expected to cost more than a replacement at a more modern building.

c. Transformative Impact

The proposal will address the most crucial issues affecting climate control at the Complex and improve its long term ability to function as the Village's municipal center on a daily and emergency basis. The overall project will enable the Village to continue to serve the public via a fully functional complex that promotes cost and environmental efficiency. The project will contribute significantly to the region's effort to decrease GHG emissions.

The proposed project will contribute to the overall revitalization of the Village by preserving a major historical asset, enhancing community services, and maintaining municipal administration. The prominent Late Gothic Revival building in the Village is a historic focal point and contributes significantly to the tourism appeal of the area. The Complex houses essential resident services, including a library, museum, and various Village agencies and organizations.

## **2. Impact of GHG Measures**

a. Magnitude of GHG Reductions from 2025 through 2030

As the proposed project includes a scoping phase that will determine precise GHG reductions depending on the VRF system recommended, it is difficult to speak specifically and technically to the magnitude of reduction at this point.

Emissions from the current HVAC system are calculated to be 29 metric tons annually. The proposed VRF system lifetime (10-15 years) emissions total is 56-78 tons, yielding a range of 5.6-7.8 tons annually. The total emissions from the existing HVAC scenario for the next 5 years would be 145 tons, compared to the proposed VRF system with a range of 28-39 tons for the same period.

b. Magnitude of GHG Reductions from 2025 to 2050

As the proposed project includes a scoping phase that will determine precise GHG reductions depending on the VRF system recommended, it is difficult to speak specifically and technically to the magnitude of reduction at this point.

Emissions from the current HVAC system are calculated to be 29 metric tons annually. The proposed VRF system lifetime (10-15 years) emissions total is 56-78 tons, yielding a range of 5.6-7.8 tons annually. The total emissions from the existing HVAC scenario for the next 25 years would be 725 tons, compared to the proposed VRF system with a range 140-195 tons for the same period.

c. Cost Effectiveness of GHG Reductions

The scoping phase of the proposed project will use the recommended VRF installation to determine cost effectiveness of the overall GHG reductions.

d. Documentation of GHG Reduction Assumptions

The GHG emissions for the current HVAC system were determined using the EPA Simplified GHG Emissions Calculator, May 2023 using natural gas usage taken from National Grid billing information from 2020. The VRF GHG emissions range was provided by “Estimation of Lifetime CO2 Emissions of Commercial HVAC Equipment through Building Energy Modeling”, Optimized Thermal Systems, December 2020.

**3. Environmental Results – Outputs, Outcomes, and Performance Measures**

a. Expected Outputs and Outcomes

The proposed project will reduce GHG emissions by approximately 73-80% compared to the current HVAC system. This increased efficiency will also reduce utility costs as well as maintenance and repair costs.

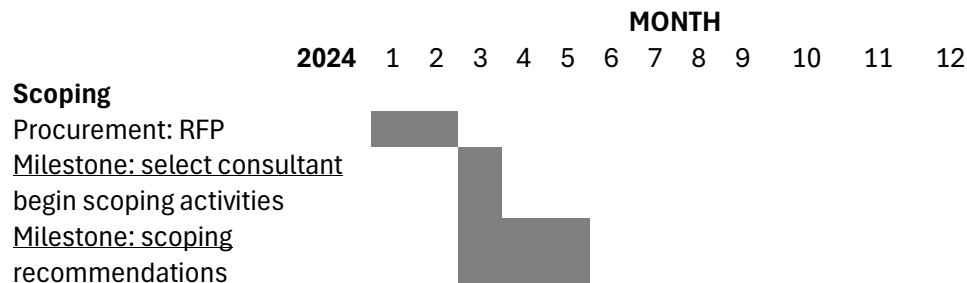
b. Performance Measures and Plan

The Village of Sea Cliff has been designated a NYSEDA Clean Energy Community and is participating in the associated Climate Smart Communities (CSC) program. CSC program activities and grant programs provide municipalities with resources to actively engage in reducing GHG emissions as well as build climate change resiliency. The proposed project’s performance would be supported going forward using appropriate tools and guidance available to the Village for that purpose.

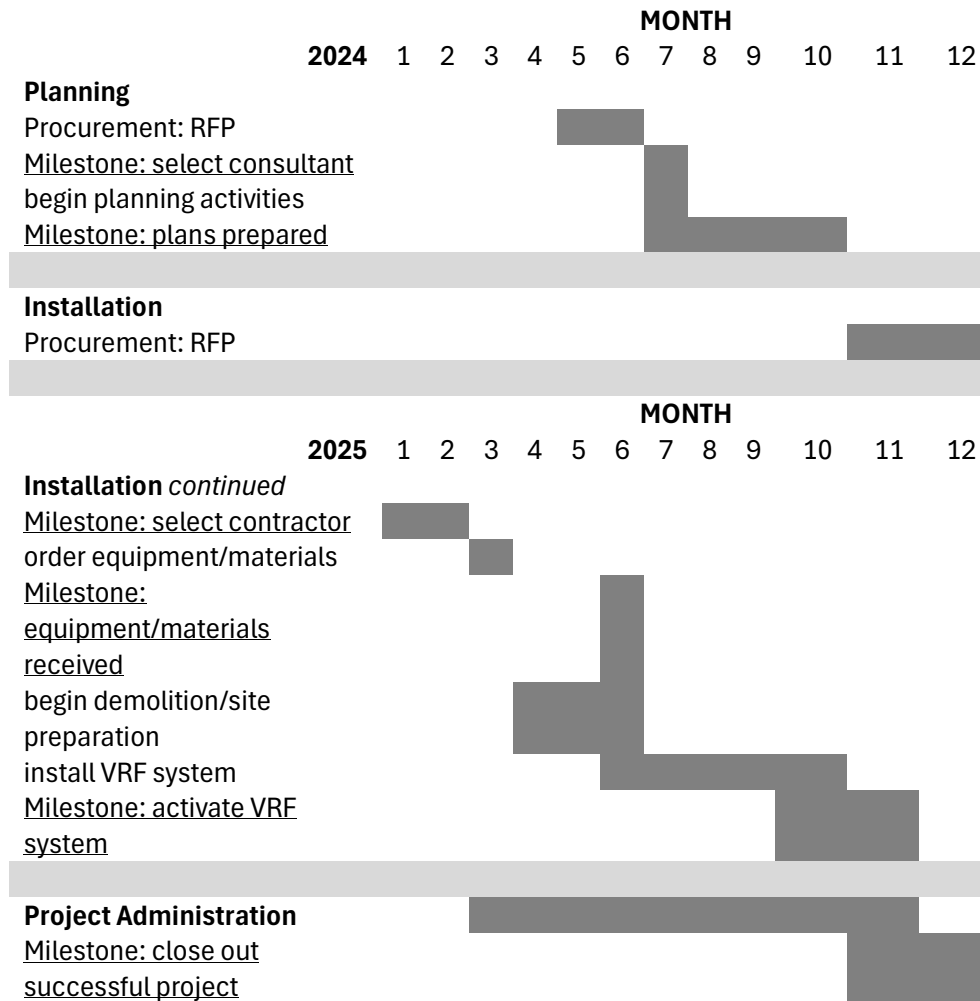
c. Authorities, Implementation Timeline, and Milestones

The implementation will be overseen by the Village Board of Trustees, Mayor, and staff supervised as described in 6.c. The Board of Trustees and Mayor have the authority to take action to carry out the measure described in this application as per New York State General Municipal Law.

The graph below details the implementation timeline along with project milestones and key actions required for project success.



## Village of Sea Cliff Municipal Complex HVAC Replacement



#### 4. Low Income and Disadvantaged Communities

##### a. Community Benefits

The proposed project is expected to yield environmental benefits to low/moderate income and elderly households in the Village as well as to those in the immediate region through GHG emission reduction. Benefits include maximizing tax dollars on an ongoing basis by reducing utility expenses and system maintenance costs. The area will also gain climate change resiliency by establishing a new emergency warming/cooling center at the Complex for use by the general public. It is expected the scoping phase will reveal a finer level of detail in regard to benefits.

The Village does not qualify as a disadvantaged community; however, it is immediately adjacent to a portion of the City of Glen Cove designated as such. Tract 36059517200 borders the northeast boundary of the Village and City and is identified disadvantaged for low income, housing cost, proximity to Superfund sites, and population with less than a high school education.

Since the City of Glen Cove is also pursuing Climate Smart Community status, the Village and City can avail themselves of the assessment and reporting tools through that program. The Village and City will share information and collaborate on future GHG emissions efforts.

b. Community Engagement

The Village of Sea Cliff is committed to a project that engages and represents the voices of all stakeholders, including both long-time and new residents, as well as non-resident stakeholders from the broader community.

The Village completed and adopted its first Comprehensive Plan in 50 years in September 2023. During the year long process, residents had the opportunity to engage with the Village on a full range of important local issues. In person events, online surveys, and mailings provided the Village with a high degree of input. The environment and progressive conservation efforts were among the top 3 most compelling issues for Village residents. The final Comprehensive Plan endorses efforts, such as the one proposed in this application, that will improve environmental quality in our region.

**5. Job Quality**

The project will create short-term jobs and revitalize a vital community resource. Approx. 10-15 short-term jobs are anticipated by the grant-funded proposal, which include engineers, architects, general contractors, field supervisor, plumbers, and miscellaneous laborers.

The Village will follow its procurement policies as well as any other mandated program policies required for high quality implementation and end product. Working together with the NYSDERDA EPCs will support our efforts to ensure labor standards are implemented and that a skilled, diverse contractor pool is solicited and engaged in the project.

**6. Programmatic Capability and Past Performance**

a. Past Performance

The Village of Sea Cliff has successfully managed assistance agreements and completed projects together with several federal and non-federal entities:

2022: Hempstead Harbor shoreline culvert system assessment conducted and completed to address flooding, outfall, and pollutants.

*Funding source:* New York State Dept. of Environmental Conservation (DEC) Non-Source Point Grant program

2015 to 2022: the Village successfully installed modern sewer infrastructure, in 3 phases, connecting to the Glen Cove Wastewater Treatment Plant allowing the entire Sea Cliff Avenue commercial area as well as more than 150 residences to abandon aging and faulty cesspool septic systems.

*Funding sources:* HUD Community Development Block Grant program, New York State DEC Water Quality Improvement program, Dormitory Authority of New York, New York State Dept. of Transportation

2020: the Village received a grant on behalf of the Sea Cliff Fire Department to purchase vehicle extrication equipment.

*Funding source:* FEMA Assistance to Firefighters

2017 to 2019: the Village restored to historic landmark standards the windows and exterior of the Tudor style Sea Cliff Fire Department Firehouse built in 1932 which continues in its original emergency response purpose.

*Funding Sources:* New York State Office of Parks, Recreation and Historic Preservation, Dormitory Authority of New York

2018 to 2021: the Village received a 4 year grant on behalf of the Sea Cliff Fire Department to provide Personal Protective Equipment to new volunteer recruits.

*Funding source:* FEMA Staffing for Adequate Fire and Emergency Response

2018: Sea Cliff converted Library and Village Hall interior lighting LED.

*Funding source:* Dormitory Authority of New York

2018: the Village installed a split unit HVAC at the Sea Cliff Fire Department Firehouse.

*Funding source:* NYSERDA Clean Energy Communities

2017: the Village successfully accomplished DPW Garage LED Lighting conversion.

*Funding source:* NYSERDA Clean Energy Communities

2017: Sea Cliff purchased in 2017 an Electric Vehicle for the Building Department Inspector.

*Funding source:* NYSERDA Clean Energy Communities

2014 to 2015: the municipality restored to historic landmark standards the exterior of the Sea Cliff Village Hall Complex.

*Funding Sources:* New York State Office of Historic Preservation and Recreation

#### b. Reporting Requirements

The Village has, and continues to, demonstrate a consistent history of successfully meeting reporting requirements contained within federal and non-federal assistance agreements.

*Funding source:* FEMA Assistance to Firefighters

The Village submitted progress and financial reports as well as modification requests in the FEMA GO grants portal. Progress reports were submitted quarterly and financial reports biannually. A modification to project scope was submitted and approved due to the costs of equipment increasing significantly during the COVID. Close out reports were submitted on time at the conclusion of the project.

*Funding source:* FEMA Staffing for Adequate Fire and Emergency Response

Progress and financial reports were submitted via FEMA E-Services, an earlier online grant management system, and FEMA GO. Over more than 4 years, progress reports were submitted quarterly and financial reports biannually. A modification to extend the project timeline due to the COVID pandemic was submitted and approved. Close out reports were submitted on time at the conclusion of the project.

*Funding source:* HUD Community Development Block Grant program

The Village participates in the Nassau County Urban Consortium for this project and reporting was submitted to the Consortium on behalf of HUD. An annual progress report and Section 503 report were submitted during the course of the sewer project phase one. Close out reports were submitted on time at the conclusion of the project's phase one.

*Funding source:* New York State Dept. of Environmental Conservation (DEC) Non-Source Point Grant program

The Village submitted progress and financial reports directly to the assigned DEC representative. Progress reports were submitted quarterly and financial reports biannually. Minority and Women Business Enterprise (MWBE) quarterly reports were submitted via the New York State Contracts portal. Close out reports were submitted on time at the conclusion of the project. The final assessment report was provided directly to DEC.

*Funding source:* New York State DEC Water Quality Improvement program

The Village submitted progress and financial reports as well as modification requests directly to the assigned DEC representative. Progress reports were submitted quarterly and financial reports biannually. Minority and Women Business Enterprise (MWBE) quarterly reports were submitted via the New York State Contracts portal. A modification to project scope was submitted and approved to include an area adjacent to the Business Center using excess grant award funds. Close out reports were submitted on time at the conclusion of the project. Final drawings for all phases were provided directly to DEC.

*Funding source:* Dormitory Authority of New York

The Village submitted modification requests directly to the assigned Authority representative. Minority and Women Business Enterprise (MWBE) quarterly reports were submitted via the New York State Contracts portal. A close out report was supplied with the final reimbursement request.

*Funding source:* New York State Dept. of Transportation

A close out report was supplied with the final reimbursement request.

*Funding Source:* New York State Office of Parks, Recreation and Historic Preservation

The Village submitted progress and financial reports as well as modification requests directly to the assigned Office representative. Close out reports were submitted on time at the conclusion of the project.

*Funding source:* NYSERDA Clean Energy Communities

The Village submitted progress and financial reports via NYSERDA's Salesforce vendor portal. Close out reports for all project phases were submitted on time at the conclusion of the project.

c. Staff Expertise

Staff and elected officials of the Village of Sea Cliff will administer the grant if awarded. Project Management will be overseen by the Village Administrator in tandem with the Village Board of Trustees and Mayor Elena Villafane. The Village Treasurer will be responsible for fiscal accounting and the Grants Administrator will manage grant administration, reporting, and compliance. The duties required to perform the grant tasks are already inclusive of the positions held by each respective Village employee and elected official.

## 7. Budget and Timely Expenditure of Grant Funds

a. Budget Detail

Activity	Category	Amount
Procurement, Scoping, Planning and Design	Contractual	\$400,000.00
Equipment	Equipment	\$1,000,000.00
Materials	Supplies	\$200,000.00
Installation	Contractual	\$400,000.00
Project Administration	Contractual	\$100,000.00
		\$2,100,000.00

The project may have up to 3 procurement phases – scoping, planning/design, and installation – with the associated expenses for that process each time. Scoping is expected to be undertaken by a professional HVAC consultant with the deliverable containing viable recommendations for the final system. The scoping report will also include precise GHG emissions data for the finished project. Planning and design will likely be accomplished by an engineering firm with possible assistance from an architectural consultant as well. The plans will be extensive as they will cover more than 20,000 square feet and three floors.

Equipment recommended in the scoping report will be a commercial unit capable of replacing the current 50 ton system. Piping and ducting the entire system will be challenging due to the brick and plaster walls and as of yet unknown structural issues. The cost of supplies will include piping, insulation, and ducting/duct alternative throughout the entire building.

Installation will be conducted by a contractor identified through competitive bidding. Project administration will also be contracted to a consultant, but it is uncertain if this activity will be conducted by the planning engineer as part of their initial bid or if the task will be contracted to another party.



b. Expenditure of Awarded Funds

The project team consisting of the Mayor, Board of Trustees, staff, and NYSERDA EPCs will work together at every stage to ensure funds are used effectively and efficiently. The Board of Trustees and Mayor will oversee all staff and consultants and ensure Village policies are followed. The Village Administrator and Grants Administrator will interface with consultants and vendors on a daily basis to manage progress and meet the project timeline. The Grants Administrator and Treasurer will work together to review payment requests for compliance and process payments as per the appropriate contract(s). The NYSERDA EPCs will be available at all stages to advise the Board and staff on technical issues and questions as they arise.

c. Reasonableness of Cost

Soft costs for the first phase of the project are higher than the typical 20% of total cost. The project will begin with scoping to determine the correct system for the building; since this is not a standard, modern structure, a number of variables are expected to require extra time and expertise. Scoping will be followed by drafting of plans by an engineer and also possibly an architect, again due to the subject building.

The Village will follow its' procurement policy to ensure the lowest responsible bid is accepted at each phase. As the HVAC system is yet to be determined, equipment and materials were calculated at total replacement cost, including new piping throughout the 20,157 square foot building, plus an inflation factor of 6% for the project period over two years. Labor will be calculated at the New York prevailing wage rate effective at the time of the installation phase.

A consulting firm performed a very preliminary assessment of the potential project and provided an equipment/materials cost estimate of nearly \$900,000 based on square footage without considering the actual building layout.