

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Brisbane

Project Title: Glen Park Pump Station Design for Efficiency and Mission Blue Center Audit

Project Description (description of proposed work as detailed in the project proposal):

The Glen Park Water Pump Station is a potable water facility in the City of Brisbane which includes a small pump station and two 200,000 gallon tanks. The Glen Park Station in Zone 2 is one of the most critical sites in the system, serving residents in the zone and pumping to the City's highest Zone 3 facility serving customers up to an elevation of approximately 500'.

The approximately 140 sf pump station was designed and built in the late 1970s. It includes two 60 hp centrifugal pumps with full voltage "hard start" and limited instrumentation. The simple design does not provide monitoring or protection of the motors from pressure variances, or controls to improve system efficiency or respond to Time of Use rates.

The project aims to upgrade the facility for increased efficiency and system resiliency. City staff expects it will include replacing existing pumps with two 75 hp pumps or three 50 hp pumps; due to the limited footprint of the station and the existing system hydraulics, the design options, including Variable Frequency Drive, may be limited and must be carefully considered. The design should consider motor efficiencies, including variable speed on/off or "soft start", as well as improved monitoring and logic controls to protect equipment and provide additional opportunities for energy, water and cost savings.

City staff are working with PG&E and their third-party-provider, Lincus, regarding potential participation in the Water Infrastructure System Efficiency (WISE) Program. This program would include a system-wide audit and pump efficiency tests to inform high-level recommendations for the local potable water system as a whole. These findings would provide a conceptual basis for the Glen Park Station upgrade, as well as a planned SCADA (Supervisory Control and Data Acquisition) upgrade in the near future and planned upgrades to other stations in the longer term. The City's consultant, EKI, would review the WISE findings for site-specific feasibility and integrate the recommendations with the goals of the City's Master Plan to complete the conceptual design phase.

In addition to pursuing the design of this previously-identified energy efficiency measure, staff will pursue an audit through Energy Watch / Ecology Action of the city-owned facilities which were omitted from the 2014 audit, primarily the interior of the Mission Blue Center. Additionally, staff will revisit unperformed actions from the 2014 audit to determine their current feasibility, implement two low-cost measures identified for the exterior/site at Mission Blue, and lay the groundwork for inclusion of additional upgrades in future city budgets or Capital Improvement Plans.

Project Timeline (as detailed in the project proposal):

Within 60 days of contract execution, staff will review and transfer data and recommendations from WISE to the consultants at EKI and finalize EKI's project scope. EKI will provide a conceptual design draft by August. Staff review and EKI preparation of final memorandum will be complete by December 2018.

Meeting with the SMCEW / Ecology Action team and performing the Mission Blue Center audit will proceed as soon as possible upon execution of a funding agreement, anticipated in March or April.

Further milestones would depend on the upgrades recommended and their costs. Some, including the two low-cost measures identified in the 2014 audit, may be recommended in the City's FY2018-19 budget and implemented following the start of the new fiscal year in July. More substantial projects would be investigated for funding opportunities or considered for later Capital Improvement Project budgets. Staff would make a recommendation for next steps on all suggested projects through the audit by the end of 2018.

Project Deliverables Required for Milestone Payment

Energy Audit and Information Gathering

Before requesting the Tier 1 Milestone Payment, the City of Brisbane must first take action to gather information on energy efficiency opportunities in the City's facilities. The City must report the Energy Audit and Information Gathering activities in the Tier 1 Milestone Report. The City must take the following steps:

Schedule Mission Blue Center Energy Audit:

The City of Brisbane must have an energy audit completed by April 30, 2018.

Energy Audit Recommendations Review:

The SMCEW team will provide the Mission Blue Center energy audit report within one month of the energy audit. The City of Brisbane must review the Mission Blue Center energy audit report and the 2014 energy audit report and identify and prioritize the recommended measures. The SMCEW team is available to support the City throughout this process.

Project Kickoff Meeting:

The SMCEW team will schedule a kickoff meeting with City of Brisbane staff to review the City's priorities and finalize additional project scopes.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Brisbane must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018.

The City is required to demonstrate commitment for the Glen Park Pump Station Project. The City is encouraged to commit to other energy efficiency measures identified during the energy audit process.

The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. The City should include the Mission Blue Center Energy Audit report as an attachment and a summary of the City's prioritized measures from the Mission Blue Center energy audit and the 2014 energy

audit. Other examples include, meetings with key staff, analyzing financing options, presentations to City staff, etc.

3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. For example, a final Memorandum of Understanding with EKI for the Glen Park Pump Station Project. Other examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Timeline for Project implementation.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Burlingame

Project Title: Energy Efficiency Upgrades

Scope of Work (description of proposed work as detailed in the project proposal):

The project consists of replacing the existing T8 fluorescent lamps with LED lights at existing city facilities. The facilities include:

- City Hall at 501 Primrose Road (26,000 SF)
- Main Library at 480 Primrose Road (47,300 SF)
- Easton Library at 1800 Easton Drive (2,890 SF)
- Corporation Yard at 1361 North Carolan Ave (54,800 SF)
- Police Station at 1111 Trousdale Drive (26,200 SF)
- Donnelly Parking Garage at 1260 Donnelly (50,856 SF)
- Grandstand/Parks Corporation Yard at 420 Carolan (3,516 SF)
- Recreation Center at 850 Burlingame Avenue (19,160 SF)

The project will use the San Mateo Energy Watch program to prepare proposals and select a contractor. The City is in the process of working with San Mateo Energy watch to prepare proposals for the above facilities.

Project Timeline (as detailed in the project proposal):

1. Meeting with the SMCEW team = completed, meetings held on 11/6, 11/15 & 12/6.
2. Apply for the Grant = December 15, 2017
3. Apply for the OBF on bill financing = Applied on 12/14/17
4. Energy Audit Complete with Recommendations from SMCEW = January 30, 2018
5. Agreements awarded to Project = March 2018
6. Executed Agreements with City Manager Approval = April 30th, 2018 (Tier one Milestone)
7. Construction Phase = May to September 2018
8. Substantial Completion by Mid October
9. Final Reimbursement by December 31, 2018 (Tier two milestone)

Project Deliverables Required for Milestone Payments

Project Scope Finalization

The City of Burlingame's Project proposal addresses lighting upgrades at various facilities and references the Ecology Action energy audit that occurred on November 15, 2017. Before requesting the Tier 1 Milestone Payment, the City of Burlingame must first finalize a Scope of Work and receive approval from the SMCEW team. The goal of this process is to ensure the City of Burlingame's finalized Project aligns with the goal of the Municipal Energy Efficiency Call for Projects. Furthermore, the City has the opportunity to leverage the energy audit findings. The City must follow the following steps to finalize the Scope of Work:

Energy Audit Recommendations Review:

On November 11, 2017, the SMCEW team audited the City of Burlingame facilities. By January 31, 2018, Ecology Action will provide the energy audit report. The City of Burlingame must review and prioritize the recommended measures. The SMCEW team is available to support the City throughout this process.

Project Kickoff Meeting:

By February 28, 2018, the SMCEW team will schedule a kickoff meeting with City of Burlingame staff to review the City's priorities and finalize the project scope. At this time, the City of Burlingame will have the opportunity to make adjustments to their Project proposal and finalize a Scope of Work and implementation timeline.

Project Scope Approval:

The City of Burlingame must submit the finalized Scope of Work to the SMCEW team for approval prior to requesting Tier 1 Milestone Payment. Once the City has received approval of the finalized Scope of Work, the City can move forward with requesting the Tier 1 Milestone Payment.

Project Approval by City Council or City Manager:

In order to receive the Tier 1 Milestone Payment, the City must submit proof of Project funding approval by the appropriate level of management. The City should follow its procurement rules to identify the appropriate approach for the finalized Scope of Work.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Burlingame must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

To receive the Tier 2 Milestone Payment, the City of Burlingame must complete the Project and submit a Tier 2 Milestone Report by December 31, 2018. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.

2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of San Mateo

Project Title: City of San Mateo 2018 Energy Efficiency Upgrades

Scope of Work (description of proposed work as detailed in the project proposal):

The following two projects have been identified by staff for energy efficiency upgrades.

Project 1: Small Buildings LED Lighting. This project consists of lighting upgrades at 19 separate locations.

The locations include pool and park restrooms, storage and maintenance sheds, and old Fire Station 26. The City will still need to evaluate if these lighting retrofits will be implemented by staff or by the SMCEW direct installation program.

Project 2: City Hall HVAC and LED Lighting. This project consist of replacing and upgrading the Roof Top Unit (RTU) Heating Ventilation and Air Conditioning (HVAC) system, installation of Heat Pumps, Zone Control Enhancements, and interior and exterior LED lighting.

Project 2 City Hall HVAC and LED Lighting is a first phase project of a Pacific Gas and Electric (PG&E) Sustainable Solutions Turnkey (SST) program that the City is concurrently working on with PG&E. The program will address energy efficiency retrofits at larger municipal facility locations. (SST is a PG&E program that identifies and implements energy efficiency, water conservation and site generation measures through a sole source turnkey process).

The City would like to use the C/CAG grant to help fund the Small Buildings LED Lighting project and also the City Hall HVAC and LED Lighting project, which is part of the first phase of the SST implementation.

Project Name	Detail	Location	SQ FT
Small Buildings LED Lighting	Replace 170 lighting fixtures	19 Locations	21,000
City Hall HVAC and LED Lighting	HVAC Heat Pump Zone Controls 300 LED lights	330 West 20 th Ave	39,000
Totals:		20 Locations	60,000

Project Timeline (as detailed in the project proposal):

The City met with SMCEW and Ecology Action on December 12, 2017 to begin discussion on the two energy efficiency projects. Ecology Action confirmed that an assessment for the Small Building LED Lighting project could began in January 2018. The energy assessment for the City Hall HVAC and LED Lighting project will be completed through the PG&E SST program and will take place in February 2018.

The City of San Mateo will be applying for both Tier 1 and Tier 2 funding. Based on our timeline, the projects will be completed by December 31st, 2018 and will meet both Tier 1 and Tier 2 milestones.

Project 1: Small Buildings LED Lighting

Key Tasks	Timeline	Notes
Identify locations	Completed	Locations identified by staff
Identify projects	Completed	Locations identified by staff
Meet with SMCEW and Ecology Action	Completed	12/12/2018 Kick off meeting
Energy Assessment	January 2018	Assessment to take place in January 2018
Finalize Scope	February 2018	
Project Start Date	April 2018	
Project Completion	September 2018	

Project 2: City Hall HVAC and LED Lighting

Key Tasks	Timeline	Notes
Identify location and project	Completed	A first phase item from SST project
Meet PG&E and Comfort International	Completed	Two meetings 10/11/17 and 11/28/17
Meet with SMCEW and Ecology Action	Completed	12/12/18
City Council approval of SST assessment	February 5, 2018	
Energy Assessment	February 2018	Comfort International to perform an updated assessment. (There was a PEA completed in 2015)
Finalize scope of SST energy efficiency projects	May 2018	
City Council Approval	June 2018	City Council construction approval
Project start date	September 2018	
Project completion	November 2018	

Project Deliverables Required for Milestone Payments

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of San Mateo City must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Finalized Project Scope of Work.
3. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
4. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
5. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

To receive the Tier 1 Milestone Payment, the City of San Mateo must provide a Tier 2 Milestone Report. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.
2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: County of San Mateo

Project Title:

1. San Mateo Medical Center Boiler Replacement
2. Youth Services Center CogenHeat Exchanger Upgrade Project
3. San Mateo Medical Center, Exterior Lighting Upgrade Project

Scope of Work (description of proposed work as detailed in the project proposal):

1. San Mateo Medical Center Boiler Replacement
 - o 360,592 sqft
 - o 222 W 39th Ave, San Mateo, CA 94403
2. Youth Services Center CogenHeat Exchanger Upgrade Project
 - o 266,477 sqft
 - o 70 Loop Rd, San Mateo, CA 94402
3. San Mateo Medical Center, Exterior Lighting Project
 - o 360,592 sqft
 - o 222 W 39th Ave, San Mateo, CA 94403

Project Timeline (as detailed in the project proposal):

1. San Mateo Medical Center Boiler Replacement: Deferred to Summer 2018
 - o Tier 1 Milestone: Awaiting proposal by new contractor
 - o Tier 2 Milestone: December 2018
2. Youth Services Center CogenHeat Exchanger Upgrade Project
 - o Tier 1 Milestone: February 2018 Design to be completed
 - o Tier 2 Milestone: December 2018 Project completed
3. San Mateo Medical Center, Exterior Lighting Project
 - o Tier 1 Milestone: Procurement of light fixtures is in progress.
 - o Tier 2 Milestone: Installation is anticipated to start in Feb 2018.

Project Deliverables Required for Milestone Payments

Tier 1 Milestone Payment - \$20,000

In order to receive the Tier 1 Milestone Payment, the County of San Mateo must *secure commitment to complete all three projects* detailed above in the Scope of Work. The County must commit to complete the Projects and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the County does not have to complete the Projects by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Projects. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.

3. Proof of Projects funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by Board of Supervisors or signed letter by the County Manager. Proof of Projects approval should demonstrate commitment for:
 - o San Mateo Medical Center Boiler Replacement
 - o Youth Service Center Cogen Heat Exchanger Upgrade Project
 - o San Mateo Medical Center, Exterior Lighting Project
4. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

In order to receive the Tier 2 Milestone Payment, the County of San Mateo must *complete all three projects* detailed above in the Scope of Work. The County must complete the Projects and submit a Tier 2 Milestone Report by December 31, 2018. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.
2. Narrative summarizing the steps taken to complete the Projects. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Projects completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos. All three projects detailed in the Scope of Work must be completed to receive funding.

Statement of Work (SOW) San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: Town of Colma

Project Title: Colma Facilities Energy Efficiency Project

Scope of Work (description of proposed work as detailed in the project proposal):

The proposed Energy Efficiency Project include the following Town facilities:

- 1) Colma Police Department;
- 2) Colma Sterling Park Recreation Center; and
- 3) Colma Corporation Yard.
- 4) Colma Community Center
- 5) Colma Museum/Historical Park

1) Colma Police Department:

The facility, located at 1199 El Camino Real, consists of two stories of total 14,038 square feet to accommodate 130 people.

The building is equipped with a complete HVAC system including:

- 9 outdoor Heat Pump condensing units (EMI Model #MH402204AA0F00G);
- 22 Indoor Fan Coils;
- 7 Exhaust Fans; and
- 1 Mini Split Air Conditioning (Daikin, Model #R2Q24PVJU9) in the server room. The existing lighting fixture is a mix of Compact Fluorescent Lamps (CFL) and T8 Fluorescent lamps. The interior lighting fixture include:
 - CFL 32w Fixture (60 lamps) and CFL 13w Spiral (8 lamps);
 - T8 31w U-Lamp 3L NBF (19 lamps);
 - T8-4 32w (129 lamps);

In addition to the exterior lighting fixture that includes:

- MH 175w 1L (4 lamps); and
- T8-4 32w-1st Gen-1lamp-EI-IS-NLO (4 lamps)

More information about Colma Police facility, HVAC and lighting fixture schedules are included in the as-built drawings in Attachment I of this application.

The preliminary Energy Efficiency Measures proposed for the HVAC system at Colma Police Department shall include:

1. Networked T'stats; Optimize T'stat Programs:
 - a. This measure proposes to upgrade the existing programmable thermostats to network thermostats and optimize the thermostats schedule based on the actual occupancy schedule of the zones. It will also give the maintenance staff the benefit of scheduling the HVAC system remotely.
2. Replace Heat Pumps w/ VRF System:
 - a. This measure proposes to replace the existing split heat pump system with air-cooled variable refrigerant flow (VRF) heat pump or heat recovery system. The existing outside air ductwork could be re-used for ventilation.
3. Duct Server Rm FCU for Hot/Cold Aisles:

- a. This measure proposes to re-run the ductwork from server room fan coil unit to supply/return air diffusers to provide certain extent of hot/cold aisle isolation.
4. Add selective film to south & west windows:
 - a. This measure proposes to add window film on the south and west facing windows to reduce the solar heat gains.
5. Demand Control for DHW Recirculation:
 - a. This measure proposes to install demand control on the domestic hot water recirculation pump so that domestic hot water recirculation could be turned off when there is no demand.

The final HVAC Measures will be determined once the Energy Efficiency Audit is conducted and analyzed.

The recommended upgrade for the Lighting fixtures with the cost and estimated savings for Colma Police Department are included in the Energy Efficiency Audit report enclosed in Attachment II of this application.

2) Sterling Park Recreation Center:

The facility, located at 427 F Street, is available to host small receptions, parties and events accommodating up to 50 people. It has a reception area, small kitchenette, restrooms, in addition to a picnic area with BBQ pit for up to 12-15 people. In addition, Sterling Park features a half-court basketball court, bocce ball court, playground, restrooms and grass area for games and activities

The Sterling Park Recreation Center is one-story facility consists of a main room, storage and bathroom of total area 1,524 square feet, equipped with one induced combustion gas furnace (Carrier – Model# 58ZAV096-16-14116).

The lighting fixture is a mix of Incandescent (INC), Compact Fluorescent Lamps (CFL) and Metal-Halide (MH) lamps:

- INC 75PAR (7 lamps);
- INC 60A (1 lamp);
- CFL 13w Spiral (1 lamp); and
- T8-4" 32w-1st Gen-1lamp/2lamp (4 lamps).

In addition to two MH 175w 1L exterior lamps.

The preliminary Energy Efficiency Measures proposed for the HVAC system at Sterling Park Recreation Center shall include:

1. Replace Furnace with Hi-Efficiency Furnace:
 - a. This measure proposes to replace the gas furnace with high efficiency condensing furnace with variable speed blower fan.
2. Networked T'stat; Optimize T'stat Program:
 - a. This measure proposes to upgrade the existing programmable thermostats to network thermostats and optimize the thermostats schedule based on the actual occupancy schedule of the zones. It will also give the maintenance staff the benefit of scheduling the HVAC system remotely.

The recommended upgrade for the Lighting fixtures with the cost and estimated savings for Sterling Park Recreation Center are included in the Energy Efficiency Audit report.

3) Colma Corporation Yard:

The facility, located at 601 F Street, accommodates an office for Public Works Department Staff, Maintenance Division, in addition to vehicles and equipment storage. The total footage area of the facility is approximately 10,800 square feet.

The existing interior lighting fixture is a mix of Compact Fluorescent Lamps (CFL) and T8 Fluorescent lamps:

- CFL 13w Spiral (2 lamps);
- T8 31w U-Lamp 3L NBF (19 lamps); and
- T8-4 32w (38 lamps).

In addition to two INC 75PAR exterior lamps.

The recommended upgrade for the Lighting fixtures with the cost estimated savings for Colma Corporation Yard are included in the Energy Efficiency Audit report.

4) Colma Community Center:

The Colma Community Center, located at 1520 Hillside Boulevard is available to host receptions, parties, reunions and events accommodating up to 150 people. The Colma Community Center has a commercial kitchen, banquet room with adjoining outdoor decks, conference room, and restrooms.

The existing HVAC system consists of five furnaces (Carrier Model# 58MVP100-F-17120) with gas heat and cooling coils connected to five outdoor condensing units (Carrier Model# 38E2G048500), with return fans and outdoor air economizers.

The preliminary Energy Efficiency Measures proposed for the HVAC system at Colma Community Center comprise of upgrading the HVAC system including, HVAC controls, exhaust fans, and domestic hot water system.

5) Colma Historical Park:

The Colma Historical Park, located at 1500 Hillside Boulevard and "F" Street, features the Colma Historical Museum, Train Depot, Freight Building and Blacksmith Shop, of total floor area 4,100 square feet.

The existing HVAC system consists of five packaged rooftop gas/electric units (Carrier Model# 48HJD007-551CA) serving the museum, totaling 22 tons in cooling capacity and about 2.5 therms per hour of heating capacity.

The preliminary Energy Efficiency Measures proposed for the HVAC system at the museum comprise of upgrading HVAC system, including installation networked thermostats and optimizing thermostat settings.

Project Timeline (as detailed in the project proposal):

The scope of the Energy Efficiency Lighting project generally includes updating of Energy Efficiency Audit that was conducted in November 2017, funding analysis and agreement, and Installation of lighting fixtures at Colma Police Department; Sterling Park Recreation Center; and Colma Corporation Yard.

- The Energy Efficiency Lighting fixtures will be installed by November 2018 and the project will be completed by Dec 31, 2018 which will meet both Tier 1 and Tier 2 milestones, as shown on Attachment Timeline (1).

The scope of Energy Efficiency HVAC project generally includes Energy Efficiency Audit, Design of new HVAC equipment, cost estimates and specifications, bid package, funding analysis and agreement, and installation of HVAC system at Colma Police facility. It is anticipated that the project, including both Energy Efficiency Lighting and Energy Efficiency HVAC, will begin in March 2018 once the funding agreement is executed with SMCEW, and it will be completed as per the following timelines:

- The Energy Efficiency HVAC project will be achieved by July 2019, i.e. beyond Tier 2 milestone and it will meet Tier 1 milestone only, as shown on Attachment Timeline (2).

Project Deliverables Required for Milestone Payments

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the Town of Colma must commit to complete both the Lighting and HVAC Projects and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the Town does not have to complete the Projects by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Projects. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to Town staff, etc.
3. Proof of Projects funding approval by the appropriate level of management per the Town's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Updated Project Timeline to complete the Projects by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

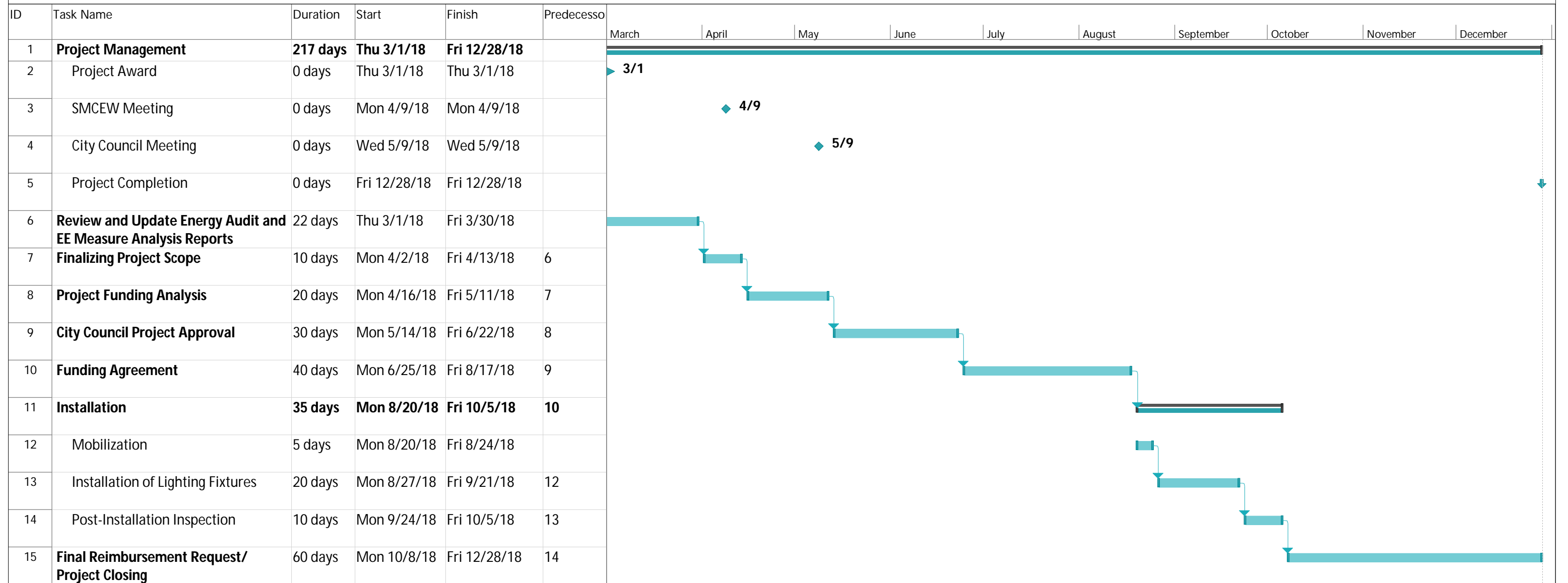
To receive the Tier 2 Milestone Payment, the Town of Colma must complete the Lighting Project and submit a Tier 2 Milestone Report by December 31, 2018. The Town is not required to complete the HVAC Project by December 31, 2018 to receive the payment. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.
2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.

3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.
4. Updated Project Timeline to complete the HVAC Project.

By meeting both Tier 1 and Tier 2 requirements, the Town of Colma would receive both payments totaling \$50,000.

Colma Facilities Energy Efficiency Project
Timeline (1)
Energy Efficiency Lighting Project

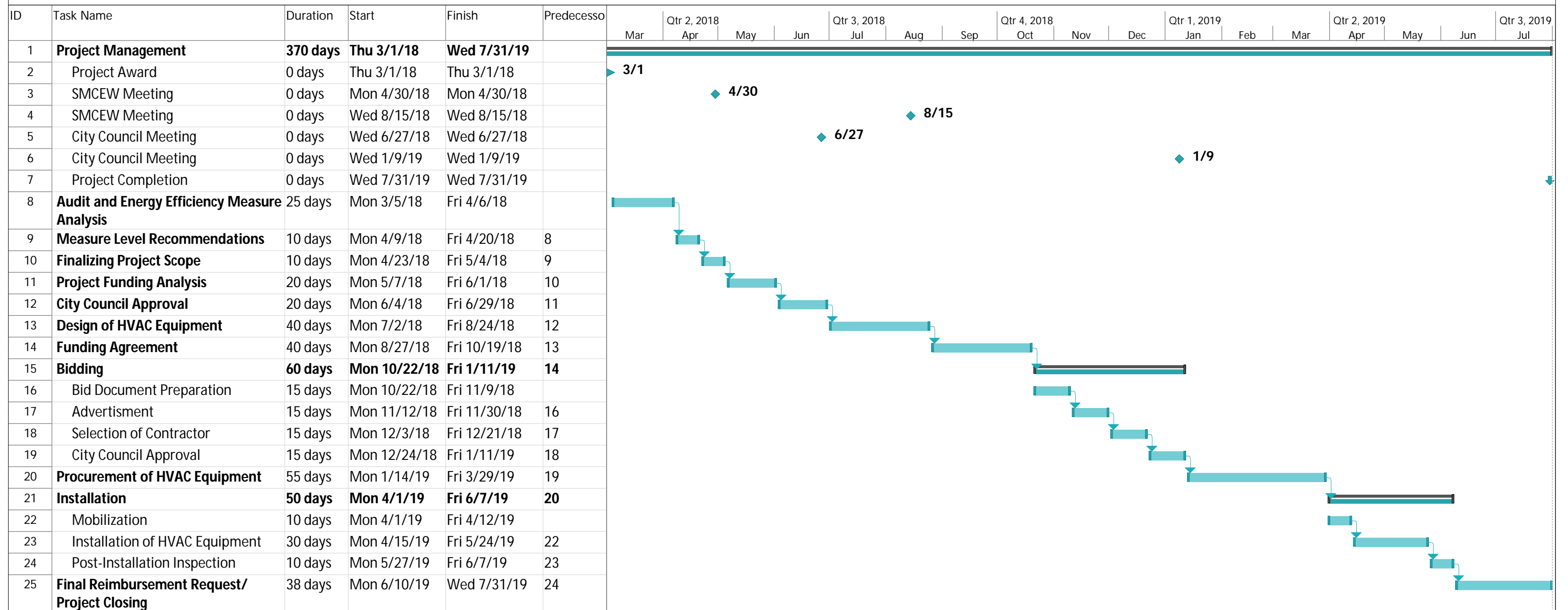


Project: Energy Efficiency-Light Date: Tue 12/12/17	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

Colma Facilities Energy Efficiency Project

Timeline (2)

Energy Efficiency HVAC Project



Project: Energy Efficiency HVAC Date: Tue 12/12/17	Task		Project Summary		Manual Task		Start-only		Deadline	
	Split		Inactive Task		Duration-only		Finish-only		Progress	
	Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
	Summary		Inactive Summary		Manual Summary		External Milestone			

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Daly City

Project Title: Energy Efficiency Upgrades at City Facilities

Scope of Work (description of proposed work as detailed in the project proposal):

In total, the following projects represent an annual electric savings of 444,098.8 kWh and an annual gas savings of 10,199 Therms.

City Hall (333 90th Street, Daly City CA 94015)

65,000 sq ft

- Replace existing Thermostats with Networked Thermostats
- Install VFD and Commission Control of Secondary HW Pumps
- Lighting upgrades (interior)

Serramonte Library (40 Wembley Drive, Daly City CA 94015)

16,000 sq ft

- Lighting upgrades

Doelger Senior Center (101 Lake Merced Blvd, Daly City CA 94015)

30,000 sq ft

&

Westlake Park Community Center and Gymnasium (145 Lake Merced Blvd, Daly City CA 94015)

20,000 sq ft

(Both facilities are located in the same complex)

- Add Timeclock to DHW Circulation Pumps
- Install VFD and Commission Control of Secondary HW Pumps
- Install Networked Thermostats in Community Center
- Install Networked Thermostats in Gym
- Lighting upgrades

War Memorial Community Center & John Daly Library (6675 Mission Street, Daly City CA 94014)

39,500 sq ft

- Install Actuated Control Valves for Condenser Water at each Heat Pump
- Lighting Upgrades

Project Timeline (as detailed in the project proposal):

- Meeting with SMCEW team and PG&E – completed in July 2017
- Approval to move forward from City Manager – July 2017

- Finalized Project Scope – officially completed in November 2017
- Tier 1 milestones achieved

All measures will be completed by December 2018 in order to achieve Tier 2 milestones.

First, the City will tackle lighting upgrades. On 12/15/17, our lighting contractor installed three samples of LED lighting options in a conference room at City Hall so City staff can make an informed selection for interior lighting upgrades. The next step will be installation.

The City's project team estimates that all upgrades will be completed by September 2018, depending on material availability for the HVAC equipment and lighting.

Project Deliverables Required for Milestone Payments

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Daly City must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Finalized Project Scope of Work.
3. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
4. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
5. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

To receive the Tier 2 Milestone Payment, the City of Daly City must complete the Project and submit a Tier 2 Milestone Report by December 31, 2018. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.
2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Foster City

Project Title: HVAC Upgrades at City Hall and City Council Chambers

Scope of Work (description of proposed work as detailed in the project proposal):

Proposed project: HVAC Upgrade Project

Goal: Replace existing units with more efficient, energy-saving units

Locations:

- Foster City City Hall: 610 Foster City Blvd. (23,589 sq. ft.)
- Foster City Council Chambers: 620 Foster City Blvd. (5,365 sq. ft.)

The City has completed an energy audit.

Project Timeline (as detailed in the project proposal):

Task deadlines for HVAC Upgrade Project

- 12/8/17: Submit City Manager commitment letter to C/CAG
- 2/28/18: Meeting with Foster City staff, HVAC consultant Wayne Shipley, and Michelle Morales, Ecology Action to discuss HVAC audit and HVAC system replacement plan.
- 6/30/18: Finalize project scope (project length and anticipated completion, funding, staff operations during HVAC replacement, bid process)
- June 2019: Submit to City Council for approval through FY 19-20 budget adoption

Project Deliverables Required for Milestone Payment

Project Scope Finalization

The City of Foster City's Project proposal addresses HVAC upgrades at various facilities. Before requesting the Tier 1 Milestone Payment, the City of Foster City must first finalize a Scope of Work and receive approval from the SMCEW team. The City must take the following steps:

Schedule Energy Audit of City Facilities:

The City must have an energy audit completed by before February 28, 2018.

Energy Audit Recommendations Review:

The SMCEW team will provide the energy audit report within 60 days of the energy audit. The City must review the energy audit report and identify and prioritize the recommended measures. The SMCEW team is available to support the City throughout this process.

Project Kickoff Meeting:

The SMCEW team will schedule a kickoff meeting with City staff to review the City's priorities and finalize the project scope. At this time, the City will have the opportunity to make adjustments to their Project proposal and finalize a Scope of Work and implementation timeline.

Project Scope Approval by SMCEW team:

The City must submit the finalized Scope of Work to the SMCEW team for approval prior to requesting Tier 1 Milestone Payment. Once the City has received approval of the finalized Scope of Work, the City can move forward with requesting the Tier 1 Milestone Payment.

Project Approval by City Council or City Manager:

In order to receive the Tier 1 Milestone Payment, the City of Foster City must submit proof of Project funding approval by the appropriate level of management. The City should follow its procurement rules to identify the appropriate approach for the finalized Scope of Work.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Foster City must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Updated Project Timeline to complete the Project.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Half Moon Bay

Project Title: Window Pane and Lighting Upgrades

Scope of Work (description of proposed work as detailed in the project proposal):

The proposed project includes installation of double-paned windows and LED light fixtures at the Ted Adcock Community Center located at 535 Kelly Street, Half Moon Bay, CA, 94019 (approximately 7,286 square feet). The community uses the facility on an almost daily basis for meetings, after-school programs, and community recreation such as exercise classes.

Given this popularity and consistent use of the space, the City has plans to expand our recreation program and would like this growth to be strategic, energy efficient, and eco-friendly. We believe retrofitting the windows and updating the lights will complement the upgrades we have recently achieved, namely the installation of ADA compliant counters, automatic front doors, and recently painted portions of the facility. We have also conducted a solar assessment of the building and submitted a grant application to install an Electric Vehicle charging station. We anticipate completing additional upgrades to the building in FY 2017-18 (including additional painting, installation of additional automatic doors, and a complete kitchen retrofit).

In addition to the improvements at the Ted Adcock Community Center, we are also interested in converting the lights in City Hall, the Sheriff's Substation, the Emergency Operations Center, and the Train Depot community building to LED and motion-activated lights, where applicable. The square footage of the above locations are as follows:

- City Hall – 6,000 square feet
- Sheriff's Substation/EOC Building – 2,976 square feet
- Train Depot – 1,200 square feet

City Hall is open five days per week 8am-5pm and the Sheriff's substation has activity seven days per week. The EOC Building and the Train Depot are both used heavily for community meetings, trainings, and programs.

City Hall and the Train Depot are both historic buildings which limit the amount of external retrofitting that can occur. However, we are gathering information that will help us better assess additional energy efficient options for the interior of our buildings. We will be conducting an energy audit with Ecology Action on December 21, 2017, and intend to use the report to further inform our energy efficiency efforts.

Project Timeline (as detailed in the project proposal):

- December 14, 2017 – Host kick-off meeting with Ecology Action
- December 21, 2017 – Conduct energy audit of City buildings with Ecology Action
- March 2018 – Present budget amendment and project to City Council for approval, if approved for funding by SMCEW, (Tier 1 Milestone)
- April 2018 – Identify contractor for retrofits and process contract
- July - August 2018 – Implement project (post summer-camps)
- September 2018 – Complete project and notify SMCEW for project review (Tier 2 Milestone)

Project Deliverables Required for Milestone Payment(s)

Project Scope Finalization

The City of Half Moon Bay's Project proposal addresses window and lighting upgrades at various facilities and references the Ecology Action energy audit that occurred on December 21, 2017. Before requesting the Tier 1 Milestone Payment, the City of Half Moon Bay must first finalize a Scope of Work and receive approval from the SMCEW team. The goal of this process is to ensure the City of Half Moon Bay's finalized Project aligns with the goal of the Municipal Energy Efficiency Call for Projects. Furthermore, the City has the opportunity to leverage the energy audit findings. The City must follow the following steps to finalize the Scope of Work:

Energy Audit Recommendations Review:

On December 21, 2017, the SMCEW team audited the City of Half Moon Bay facilities. By February 16, 2018, Ecology Action will provide the energy audit report. The City of Half Moon Bay must review and prioritize the recommended measures. The SMCEW team is available to support the City throughout this process.

Project Kickoff Meeting:

By February 28, 2018, the SMCEW team will schedule a kickoff meeting with City of Half Moon Bay staff to review the City's priorities and finalize the project scope. At this time, the City of Half Moon Bay will have the opportunity to make adjustments to their Project proposal and finalize a Scope of Work and implementation timeline.

Project Scope Approval by SMCEW team:

The City of Half Moon Bay must submit the finalized Scope of Work to the SMCEW team for approval prior to requesting Tier 1 Milestone Payment. Once the City has received approval of the finalized Scope of Work, the City can move forward with requesting the Tier 1 Milestone Payment.

Project Approval by City Council or City Manager:

In order to receive the Tier 1 Milestone Payment, the City must submit proof of Project funding approval by the appropriate level of management. The City should follow its procurement rules to identify the appropriate approach.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Half Moon Bay must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.

2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

To receive the Tier 2 Milestone Payment, the City of Half Moon Bay must complete the Project and submit a Tier 2 Milestone Report by December 31, 2018. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.
2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Pacifica

Project Title: Council Chambers HVAC and Lighting Retrofit

Scope of Work (description of proposed work as detailed in the project proposal):

Replace nonfunctioning boiler with new higher efficiency boiler and comprehensive lighting upgrade to the City of Pacifica Council Chambers Building.

The existing building is located at 2212 Beach Boulevard and is a two-story structure with a footprint of roughly 4,400 square feet. The lower floor is vacant and formerly housed administrative offices, mechanical equipment, laboratory space, conference rooms and restrooms for the former Wastewater Treatment Plant at the site. The second floor is the City of Pacifica Council Chambers and includes a Council conference room, restrooms, and storage space.

Since the building boiler system is nonfunctioning, we have been using very high wattage lights to heat the space. The lights are usually turned on early in the day to heat the Council Chambers for evening meetings. This is not an energy efficient solution and labor intensive to City maintenance staff.

The proposed improvements will reduce energy consumption and improve building comfort. The improvements will have the benefit of reducing greenhouse gas (GHG) emissions and reduce energy costs to the City.

An energy audit has not been completed for the City of Pacifica Council Chambers building.

Project Timeline (as detailed in the project proposal):

- Meet with the SMCEW team: 3/12/2018
- Audit and EE Measure Analysis: 4/2/2018
- Finalize Project Scope: 6/4/2018
- City Council project approval: 6/25/2018
- Complete PS&E: 7/13/2018
- Advertise: 7/18/2018
- Contract Award: 9/24/2018
- Construction: 10/8/2018
- Project Completion: 1/31/2019

This project will meet the Tier 1 Milestone.

Project Deliverables Required for Milestone Payment

Energy Audit and Information Gathering

The City of Pacifica's Project proposal addresses boiler and lighting upgrades at various facilities and references the need for an energy audit. Before requesting the Tier 1 Milestone Payment, the City of Pacifica must first take action to gather information on energy efficiency opportunities in the City's facilities. The City must take the following steps:

Schedule Energy Audit of City of Pacifica facilities:

The City of Pacifica must have an energy audit completed by April 2, 2018.

Energy Audit Recommendations Review:

The SMCEW team will provide the City with an energy audit report within 60 days of the energy audit. The City of Pacifica must review the energy audit report and identify and prioritize the recommended measures. The SMCEW team is available to support the City throughout this process.

Project Kickoff Meeting:

The SMCEW team will schedule a kickoff meeting with City of Pacifica staff to review the City's priorities and finalize the project scope. At this time, the City of Pacifica will have the opportunity to refine their Project proposal with details for the boiler and lighting upgrades.

Project Scope Approval by SMCEW team:

The City must submit the finalized Scope of Work to the SMCEW team for approval prior to requesting Tier 1 Milestone Payment. Once the City has received approval of the finalized Scope of Work, the City can move forward with requesting the Tier 1 Milestone Payment.

Project Approval by City Council or City Manager:

In order to receive the Tier 1 Milestone Payment, the City of Pacifica must submit proof of Project funding approval by the appropriate level of management. The City should follow its procurement rules to identify the appropriate approach.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Pacifica must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc. The City of Pacifica should include the energy audit report as an attachment.
3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Timeline for Project implementation.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: Town of Portola Valley

Project Title: Town Center- Heating & Lighting Retrofit

Scope of Work (description of proposed work as detailed in the project proposal):

Town Center – Heating & Lighting Retrofit

The proposed project encompasses facilities upgrades in four existing buildings at the Town Center and includes multiple measures – heating, domestic hot water heating, interior and exterior lighting – and is supported by the SMCEW program. The scope of the project is outlined in detail below.

The Town Center is located at 765 Portola Road in the center of Portola Valley. There are four main buildings including a Historic Schoolhouse that was originally built in ~1908 and three relatively new buildings that were occupied in September 2008: the Library, Community Hall and Town Hall.

Historic Schoolhouse Heating & Lighting Audit/Retrofit:

The Historic Schoolhouse is 1,500 sq ft and is used for all of the Town’s Council, Committee and Commission meetings. The Library is 7,188 sq ft and houses the Portola Valley Library (the building is leased by the San Mateo County Library System, but owned and maintained by the Town) and the Town’s Historic Resources Center. The Community Hall is 6,657 sq ft and consists of a large multipurpose room, commercial kitchen and two smaller activity rooms. All of the rooms are utilized daily for community classes, meetings and events. Town Hall is 5,696 sq ft and houses 14 employees and the Town’s Emergency Operations Center.

The Historic Schoolhouse has a heating system and lighting that dates back to its most recent remodel in ~1998. The proposed project would include a retrofit of the existing lighting to modern, efficient lighting and an upgrade to an efficient heating system. The Town has enlisted Ecology Action through SMCEW to perform a lighting audit and provide retrofit recommendations. The Town has also enlisted engineering staff at Ecology Action to audit the current heating system and provide retrofit recommendations.

Lighting Audit/Retrofit:

The Library, Community Hall and Town Hall have the original lighting that dates back to September 2008, with additional lighting fixtures added in the Library in 2013. The proposed project would include a lighting retrofit of these three buildings that color matches the current lighting, but includes the most efficient, up-to date technology. The proposed project would also include retrofitting the exterior, parking lot and campus lighting. The Town has enlisted Ecology Action through SMCEW to perform a lighting audit and provide retrofit recommendations.

The Library and Town Hall each rely on a natural gas dual-boiler that heats water for both domestic hot water uses and the radiant floor heating. The Town has been informed that the current dual-boiler was experimental equipment when it was installed and there is no matching replacement. As part of the proposed project, the Town will enlist the assistance of a consultant through SMCEW if available (or utilize our current consultant), to identify and recommend specifications for a new system, which ideally relies on electricity rather than natural gas to utilize the 100% renewable electricity provided to the Town by Peninsula Clean Energy.

The Town is applying for the Tier 1 grant. The \$20,000 will be utilized to fund staff work with Ecology Action and/or consultants to perform the facilities audit, review findings and analyze retrofit options. Staff will rely on SMCEW watch partners and consultants to provide equipment specifications and/or identified consultants if not available through SMCEW. In addition, the funds will be used for staff and/or consultants to make presentations to the Town Council and secure their commitment by December 31, 2018 to complete proposed energy efficiency projects.

Project Timeline (as detailed in the project proposal):

Town Center – Heating & Lighting Retrofit Project Timeline:

December 2017:

- Ecology Action scheduled to audit lighting at all four buildings

January 2018:

- Schedule heating audits for all four buildings with Ecology Action and/or consultant

February 2018:

- Review and analyze lighting audit and retrofit recommendations with Ecology Action with Town Staff
- Complete heating audit of Historic Schoolhouse with Ecology Action
- Complete heating audit of Library and Town Hall with Ecology Action and/or consultant

March/April 2018:

- Review and analyze heating audit and retrofit recommendations with consultants and Town Staff
- Determine timeline for funding/implementing retrofit projects

May/June 2018:

- Make presentation to Town Council on retrofit projects as part of 2018-9 budget process

July/August/September 2018:

- Create plan/timeline for implementing projects approved and funded for 2018-9 fiscal year
- Return to Town Council with additional information, if needed, to receive commitment on remaining projects

Project Deliverables Required for Milestone Payment

Project Scope Finalization

The Town of Portola Valley's Project proposal addresses heating and lighting upgrades at various facilities. Before requesting the Tier 1 Milestone Payment, the Town of Portola Valley must first finalize a Scope of Work and receive approval from the SMCEW team. The Town must take the following steps:

Schedule Energy Audit of Town Facilities:

The Town of Portola Valley must have an energy audit completed by February 28, 2018.

Energy Audit Recommendations Review:

The SMCEW team will provide the energy audit report within 60 days of the energy audit. The Town must review the energy audit report and identify and prioritize the recommended measures. The SMCEW team is available to support the Town throughout this process.

Project Kickoff Meeting:

The SMCEW team will schedule a kickoff meeting with Town of Portola Valley staff to review the Town's priorities and finalize additional project scopes. At this time, the Town will have the opportunity to make adjustments to their Project proposal and finalize a Scope of Work and implementation timeline.

Project Scope Approval by SMCEW team:

The Town must submit the finalized Scope of Work to the SMCEW team for approval prior to requesting Tier 1 Milestone Payment. Once the Town has received approval of the finalized Scope of Work, the Town can move forward with requesting the Tier 1 Milestone Payment.

Project Approval by Town Council or Town Manager:

In order to receive the Tier 1 Milestone Payment, the Town must submit proof of Project funding approval by the appropriate level of management. The Town should follow its procurement rules to identify the appropriate approach for the updated Scope of Work.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the Town of Portola Valley must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the Town does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to Town staff, etc.
3. Proof of Project funding approval by the appropriate level of management per the Town's procurement rules. Examples include authorized resolution by Town Council or signed letter by Town Manager or Town Council.
4. Updated Project Timeline to complete the Project.

Exhibit A

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of Redwood City

Project Title: PD Municipal Energy Efficiency Project

Scope of Work (description of proposed work as detailed in the project proposal):

The project location is the Redwood City Police Facility at 1301 Maple Street in Redwood City. Constructed in 1991, the 2-story, 44,224 SF building is a 24-hour facility, averaging 700,000 kWh and 31,000 thms annually. There is a central HVAC system with boilers (1,500 MBH, natural gas), chillers (110 tons), air handlers (43,000 CFM/1,285,000 BTUH), a cooling tower feeding VAV boxes, and individual heat pump units.

The building was audited in 2012 through the San Mateo County Energy Watch program. The HVAC and electrical systems are in fair condition, per the 2017 consultant-prepared Facility Condition Assessment. Overall, the facility is in good condition. The consultant also performed an energy audit for PD. The initial report identifies 7 energy conservation measures at an investment of \$173,000. The lighting measures include upgrading linear fluorescent lamps and fixtures, replacing HID lamps, and upgrading exit signs with LEDs, at approximately \$67,000. The additional 4 measures include replacing existing motors in the mechanical room, upgrading the heating system to heat pumps, replacing the heating plant, and replacing the existing water heater, at approximately \$106,000. Subsequent measures include installing outside air temperature reset controls for the boilers and re-commissioning the building and control systems (approximately \$23,000).

The lighting phase of this project can be completed with City Manager approval by December 2018, with the higher maintenance HIDs going first. The second phase projects may require Council approval, but the reset controls and re-commissioning can potentially be completed in 2018. The other second phase projects should be completed in 2019 as recommended FY 18/19 CIP projects.

Project Timeline (as detailed in the project proposal- updated based on Ecology Action Recommendations):

- Dec 2017 – Jan 2018 – Initial and subsequent SMCEW meetings
- Feb 2018 – SMCEW Energy Audit completed
- Apr 2018 – Jun 2018 – Notice Inviting Bids, vendor selection process
- Jun 29, 2018 – City Manager approval
- Jul 2, 2018 – Project start date
- Dec 31, 2018 – Project end date

Project Deliverables Required for Milestone Payments

Project Scope Finalization

The City of Redwood City's Project proposal addresses lighting, motor, heat pump, heat plant, and water heater, and controls upgrades at various facilities and references a third party energy audit performed in

2017 and a SMCEW audit completed in 2012. Before requesting the Tier 1 Milestone Payment, the City of Redwood City must first finalize a Scope of Work and receive approval from the SMCEW team. The goal of this process is to ensure the City of Redwood City's finalized Project aligns with the goal of the Municipal Energy Efficiency Call for Projects. Furthermore, the City has the opportunity to leverage the energy audit findings. The City must follow the following steps to finalize the Scope of Work:

Project Kickoff Meeting:

The SMCEW team will schedule a kickoff meeting with City of Redwood City staff to review the City's priorities and finalize the project scope to occur by June 30, 2018. At this time, the City of Redwood City will have the opportunity to make adjustments to their Project proposal and finalize a Scope of Work and implementation timeline.

Project Scope Approval by SMCEW team:

The City of Redwood City must submit the finalized Scope of Work to the SMCEW team for approval prior to requesting Tier 1 Milestone Payment. Once the City has received approval of the finalized Scope of Work, the City can move forward with requesting the Tier 1 Milestone Payment.

Project Approval by City Council or City Manager:

In order to receive the Tier 1 Milestone Payment, the City must submit proof of Project funding approval by the appropriate level of management. The City should follow its procurement rules to identify the appropriate approach.

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of Redwood City must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

To receive the Tier 2 Milestone Payment, the City of Redwood City must complete the lighting portion of the Project and submit a Tier 2 Milestone Report by December 31, 2018. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.
2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.

San Mateo County Energy Watch Municipal Energy Efficiency Call for Projects

Jurisdiction: City of South San Francisco

Project Title: South San Francisco: Powering Whole Communities Project

Scope of Work (description of proposed work as detailed in the project proposal):

In 2014, City staff worked with PG&E Sustainable Solutions Turnkey (SST) program to audit the City's electrical bills and facilities to identify additional energy savings opportunities.

The proposed project encompasses 18 sites, with a focus on three measures:

1. LED fixtures – replacing lights with LED fixtures will result in longer lasting fixtures, a reduction in maintenance, and a greater energy efficiency
2. Solar PV – roof mounted or parking lot solar canopy systems will generate electricity credited to each site individually
3. Water fixtures – upgrades to low flow toilets, sinks and urinals will reduce water usage

The project in total proposes to replace 100 water fixtures, 3,130 LED fixtures, and to generate 793 kW through on site solar systems. These measures would result in a reduction of 312 tons of GHG emissions per year, and potential savings of \$325,000 per year.

Additional details by site are as follows:

1. Orange Memorial Park: 1 Orange Ave. - The tree lined park is home to a large indoor aquatics center, tennis courts & a playground and covers 21 acres (914,760 sq. ft.). Replacing 514 lights with LED fixtures, replacing 12 water fixtures, and generating 133 KW of solar energy on site would reduce 40 tons of GHG emissions per year and potentially save \$70,000 per year in energy costs (compared to a current energy bill of \$92,271).
2. Miller Parking Garage: 329 Miller Ave. – The downtown parking garage covers 88,400 sq. ft. and consists of a five-level, open-air, concrete structure building with 254 parking stalls and approximately 14,350 square feet of commercial and office space on the ground floor. Replacing 269 fixtures with LED lights and generating 119 kW of solar energy on site at this public parking garage would reduce 56 tons of GHG emissions per year and potentially save \$41,000 per year in energy costs (compared to a current energy bill of \$42,290).
3. City Hall, Annex & Grand Library: 400 Grand Ave, 315 Maple Ave, and 306 Walnut Ave – These three buildings are located on one City block on Grand Avenue between Maple Ave. and Walnut Ave and total 23,000 sq. ft. City Hall and the Annex provide offices for City staff including the City Manager's Office, Economic and Community Development, City Clerk, HR, Finance, Building, Planning, and Engineering. Grand Library is one of two of the City's public libraries. Replacing 605 lighting fixtures with LEDs, replacing 25 water fixtures, and generating 92 kW of solar energy on site would reduce 40 tons of GHG emissions per year and save an estimated \$42,000 per year in energy costs (compared to a current energy bill of \$50,790).
4. Corporation Yard: 550 N. Canal St. – The City's Public Works department and Facilities are based in this 41,000 sq. ft. building. Replacing 476 light fixtures with LEDs, replacing 32 water fixtures, and generating 75kW of solar energy on site would reduce 41 tons of GHG emissions per year and save an estimated \$32,000 per year in energy costs (compared to a current energy bill of \$33,965).

5. Main Fire House #61 and Fire Administration: 480 N. Canal St. – This 18,000 sq. ft. building houses the City’s main fire station and Fire administrative personnel. Replacing 312 light fixtures with LEDs and generating 92kW of solar energy on site would reduce 34 tons of GHG emissions per year and save an estimated \$30,000 per year in energy costs (compared to a current energy bill of \$31,788).
6. Terrabay Gymnasium and Recreation Center: 1121 South San Francisco Drive – This 16,900 sq. ft. facility provides recreational opportunities to the public. Facilities include the gymnasium, two meeting rooms (one with a commercial kitchen plus appliances), and an outdoor patio area. Replacing 170 light fixtures with LEDs and generating 53kW of solar energy on site would reduce 24 tons of GHG emissions per year and save an estimated \$20,000 per year in energy costs (compared to a current energy bill of \$27,056).
7. Magnolia Senior Center: 601 Grand Ave – This Senior Citizen Center is a drop-in multipurpose center open to any senior 50 or over, but primarily serving those in South San Francisco. Social, recreational, educational and special activities include bingo, bridge, billiards, knitting and crafts, cooking demonstrations, casino trips, sightseeing opportunities and dining outings. The building encompasses 22,400 sq. ft. Replacing 292 light fixtures with LEDs and generating 41kW of solar energy on site would cause a reduction of 34 tons of GHGs per year and save an estimated \$28,000 per year in energy costs (compared to a current energy bill of \$26,371).
8. Fire House #65: 1151 South San Francisco Drive – This 5,300 sq. ft. fire station could benefit from 110 light fixtures replaced with LED, and 28kW of on-site solar, which could reduce 34 tons of GHG per year and save an estimated \$14,000 per year in energy costs (compared to a current energy bill of \$14,039).
9. EOC at Fire Station #61: 480 N. Canal St. – The Emergency Operations Center is 2,000 sq. ft.; replacing 41 light fixtures with LEDs would save 3 tons of GHGs per year and save an estimated \$12,000 per year in energy costs (compared to a current bill of \$12,307).
10. Fire Station #62: 249 Harbor Way – If this 3,200 sq ft. fire station replaced 84 light fixtures with LEDs, it could reduce GHG emissions by 3 tons per year, and save an estimated \$6,000 (compared to a current total energy bill of \$10,046).
11. Westborough Recreational Building: 2380 Galway Drive – This 10,000 sq. ft. building is a multi-use facility with two large reception rooms and seating up to 150 for gatherings and special events. Replacing 209 light fixtures with LEDs would cause a reduction of 4 tons of GHGs per year and save an estimated \$5,000 (compared to a current bill of \$7,342).
12. Fire Station #64: 2350 Galway Drive – This 3,200 sq. ft. fire station could reduce their GHG emissions by 2 tons per year and lower their energy bill by \$2,000 (compared to a current bill of \$6,058) if 97 light fixtures were replaced with LEDs.
13. Buri Buri Park, Hillside Park, and Paradise Valley Park – These parks contain playgrounds, tennis court, basketball courts, baseball field, a softball field , BBQs & picnic tables, and a dog park. Replacing 8, 7, and 6 water fixtures respectively will reduce water usage and save water.
14. Alta Loma Park – This park has a basketball & tennis court, playing fields & a playground. Replacing 45 light fixtures with LEDs will reduce GHG emissions by 2 tons per year, and potentially save \$2,000 per year (compared to a current bill of \$3,065).
15. Siebecker School – This preschool is a 3,350 sq. ft. building. Replacing 10 water fixtures and replacing 46 light fixtures with LEDs will reduce GHG emissions by 1 ton per year, and save approximately \$1,000 per year (compared to a current energy bill of \$3,742).

16. Small accounts – replacing 65 light fixtures in various locations throughout other municipal buildings in South San Francisco will also save approximately \$20,000 in energy bills.

Project Timeline (as detailed in the project proposal):

In November 2015 the City Issued a Request for Proposal (RFP) for an energy conservation / generation program. In July 2016 the City entered into a professional services contract with Opterra for Phase I; completion of an Energy Efficiency Plan for the City's municipal facilities. Throughout the past 16 months Opterra met with City staff, walked all relevant sites, analyzed annual energy expenditures, estimated costs and savings, and reviewed financing and technologies. Phase II, which includes implementation / construction of the projects identified in Phase I and monitoring, will be brought back to City Council for consideration in January 2018, when the Tier 1 Milestone is planned to be complete. If City Council approves, the project will move forward to Tier 2, with completion anticipated by December 2018 and completion of the Tier 2 milestone.

Project Deliverables Required for Milestone Payments

The City's project proposal includes 1) LED Fixtures, 2) Solar PV, and 3) Water Fixtures at 18 sites. In order to be qualify for the Milestone Payments, the City is required to meet each milestone for the LED fixtures and water fixtures, herein referred to as the "Project."

Tier 1 Milestone Payment - \$20,000

To receive the Tier 1 Milestone Payment, the City of South San Francisco must commit to complete the Project and submit a Tier 1 Milestone Report by December 31, 2018. To meet this milestone, the City does not have to complete the Project by December 31, 2018. The Tier 1 Milestone Report should include:

1. Invoice for Tier 1 Milestone Payment.
2. Narrative summarizing the steps taken to obtain approval for the Project. Examples include, meetings with key staff, audit findings review meetings, analyzing financing options, presentations to City staff, etc.
3. Proof of Project funding approval by the appropriate level of management per the City's procurement rules. Examples include authorized resolution by City Council or signed letter by City Manager or City Council.
4. Updated Project Timeline to complete the Project by December 31, 2018 and meet the Tier 2 Funding Milestone.

Tier 2 Milestone Payment - \$30,000

To receive the Tier 2 Milestone Payment, the City of South San Francisco must provide a Tier 2 Milestone Report. The Tier 2 Milestone Report should include:

1. Invoice for Tier 2 Milestone Payment.

2. Narrative summarizing the steps taken to complete the Project. Examples include, meetings with key staff, developing or reviewing equipment specifications, contractor procurement, installation dates, etc.
3. Proof of Project completion. Examples include copies of invoices for purchased equipment, copies of invoices for installation of equipment, and photos.