



COUNTY OF SONOMA

575 ADMINISTRATION
DRIVE, ROOM 102A
SANTA ROSA, CA 95403

SUMMARY REPORT

Agenda Date: 4/20/2021

To: Sonoma County Board of Supervisors

Department or Agency Name(s): General Services Energy and Sustainability Division

Staff Name and Phone Number: Jane Elias, 707-565-6483

Vote Requirement: Majority

Supervisorial District(s): All

Title:

Update on the County Participation in PG&E Sustainable Solutions Program Energy Services and Self Generation Programs

Recommended Action:

- A) Receive an informational update regarding the PG&E Sustainable Solutions Turnkey Program energy services contract.
- B) Delegate authority to the General Services Department Director to enter into a not to exceed \$300,000 contingency contract, in form approved by County Counsel, with PG&E's Sustainable Solutions Turnkey Program for investment grade energy audits and master planning scopes of work.
- C) Authorize application to and payment of the refundable application deposit with a not-to-exceed amount of \$55,520 for the California Public Utilities Commission (CPUC) Self Generation Incentive Program (SGIP), for battery storage at the Los Guillicos Campus.

Executive Summary:

The General Services Department is actively working on initial steps that will leverage financing opportunities under two existing California Public Utilities Commission programs administered by PG&E. Both programs will help the county reduce the cost of operations and leverage our ability to achieve climate objectives defined in the recently adopted five year Strategic Plan. The Sustainable Solutions Turnkey program and the Self Generation Incentive Program provide the means of financing comprehensive energy efficiency, water conservation, renewable power generation, and battery storage projects at County-owned properties. Participation in the incentive programs provides resources, subsidizes projects, and provides on-bill financing for projects that would otherwise require significant capital investment and staffing resources.

This item provides an informational update on the Sustainable Solutions Turnkey Program (SST) describing the scope of work, the return on investment, and proposed means of financing projects for future Board of Supervisors authorization. Delegated authority will allow the County to enter into a contract with PG&E for the initial phase of the SST program work

performing energy audits in selected County facilities throughout the County's real estate portfolio.

Prior Board action authorized the County's participation in the Self Generation Incentive Program (SGIP). This item requests additional authorization to enroll the Los Guilicos Campus in the SGIP incentive program for a battery storage project. The battery storage project is a key component of the planned micro-grid for the Los Guilicos campus.

The recommended actions will enable the General Services Department to submit the funding applications and progress the initial scope of work consisting of energy audits, master plan drafting, and development of recommendations for the potential projects. No construction or any project implementation is being authorized by this item.

Discussion:

Sustainable Solutions Turnkey Program

Under the proposed delegated authority, the County will enter into a contract with PG&E for initial energy auditing services. The General Services Energy and Sustainability Division is in the process of drafting a Request for Proposal (RFP) that will be administered through the Pacific Gas and Electric Sustainable Solutions Turnkey (SST) program. PG&E will issue the RFP, and then the County and PG&E will select from a stable of competitively-bid contractors to perform investment grade audits (IGA) in selected County facilities throughout the County's real estate portfolio.

Following the solicitation process, through PG&E, the selected contractor will evaluate the building systems - insulation, windows, heating, ventilation, air conditioning, water heating, lighting, electrical systems and controls to better understand opportunities for increased energy efficiency, renewable power generation, battery storage, water conservation and resiliency improvements. The identified facility improvement opportunities will be analyzed to ensure an industry standard return on investment of twelve years or less. The list of improvements with their return on investment and GHG reduction potential will be brought back to the Board of Supervisors for consideration once the audits are completed.

Typically, audits identify a wide range of improvement opportunities. Each improvement will show a payback over time. Viewed together multiple improvements across different buildings are bundled together into a package, and the return on investment is then spread across the package. Buildings selected for the audits will be considered with this strategy in mind. Properties throughout the 2 million square foot portfolio will be considered. Buildings on the existing County Center campus will be evaluated with consideration for potential one year to twelve year payback investments in the justice and detention facilities anticipated to remain, and administrative buildings only to the extent that projects payback within 12 – 18 months.

General Services will work with the contractor to create an Energy Master Plan (EMP) for implementation of the identified projects. The EMP will serve as a roadmap for projects that will reduce greenhouse gases, building a more resilient infrastructure through back-up power

and microgrid technology and achieve the goal of carbon neutrality. Both the identified project list and the Energy Master Plan will be brought to the Board of Supervisors for review and approval and a decision whether to initiate any particular projects.

The SST program operates under an energy services program (ESCO) structure. The County's contract with PG&E is for energy services with the scope of work defined in the proposed RFP. PG&E issues the RFP and selects the contractor with the County's review and approval. In accordance with the law and the terms of the SST agreement with the County, PG&E's contractors will comply with all applicable prevailing wage requirements and are compliant with all applicable state public works contracting provisions.

The program offers on-bill financing that can be used to pay for projects, including permits, fees and inspections, and amortize the initial costs of the investment grade audits. The on-bill financing provided through PG&E is made available through California Public Utility Commission's public goods charges collected through gas and electric bills. On-bill financing offers the County a cost effective, no-money upfront, zero interest financing option to complete energy projects. Utilizing this funding does not affect the County's decision to use a Community Choice Aggregation electric offering.

Should the County ultimately decide not to proceed with any of the projects identified through the audits, the County will be required to pay for the audits and the energy master planning work performed. Staff have estimated the total potential cost exposure to the County at \$300,000. The contract with PG&E would include a contingency clause authorizing payment, in amount not to exceed \$300,000, however only if the program improvements were not authorized by the Board at a later date. These audit reports and the Energy Master Plan will provide the County with a roadmap to improve facilities in a strategic manner even if the Board ultimately decides not to proceed with the on-bill financing and 2nd phase of the program. The SST program has been used by cities, counties, and federally-owned facilities throughout California to perform energy audits and implement projects that achieve energy savings.

The last time investment grade energy audits of County facilities were performed was in 2008 as part of the Comprehensive Energy Project (CEP). Improvements were identified and work was performed in 2008-2010. The 2008 audits identified a list of over 100 potential improvements, of which the Board of Supervisors selected about twenty as part of the CEP. The County's CEP achieved the 2006 Climate Protection Action Plan goal of reducing green gas emissions 20% below 2000 levels by 2010. Attachment D of this item is the CEP Summary document with additional details.

It has been over 10 years since any major energy efficiency upgrades were performed in County-owned buildings and new technologies are available that will further improve the efficiency of building systems. In addition, the County's experience with frequent PSPS events and the potential disruption of essential services is driving the need for micro-grid solutions with battery storage that will allow County facilities to operate independently from the power grid.

Other jurisdictions in PG&E's territory have used the SST program to achieve significant utility savings. Attachment A – Case Study of State DMV SST Program, describes the over \$9.1M in upgrades installed under the program and notes that over \$600,000 in annual savings were achieved, along with a 33% reduction in electricity use, a 26% reduction in natural gas use, and 2,700 metric tons of carbon dioxide reductions.

In summary, the SST program is a “one-stop-solution” that helps identify, prioritize, fund, and implement energy efficiency, energy generation, energy storage, and water conservation measures for large PG&E customers. General Services Department staff in the Energy and Sustainability Division have worked with PG&E's SST program staff to submit applications for the Self Generation Incentive Program, as previously reported to the Board.

Self Generation Incentive Program

With prior Board approval in June of 2020, the Energy and Sustainability Division has been working with (SST) Program staff to apply for SGIP incentive funds. This funding helps to offset the cost of battery storage at various County properties. Staff would like to additionally submit the Los Guilicos property for participation in the SGIP program with the objective of adding battery storage to the existing solar systems. If approved for the incentive, there is a 5% refundable application fee that will need to be paid in advance. The fee is \$55,520 and will go towards an incentive of \$1,110,400 that will provide 2.4 megawatts of storage for the campus. The campus already has two solar electric systems in place that can supply the battery system.

In early 2020, the County worked with (SST) Program staff to conduct preliminary energy audits of various county facilities throughout the real estate portfolio to identify potential energy, renewables, water and resiliency improvements, including battery storage and microgrid technology. Properties were identified and applications were submitted to the SGIP program. With assistance from the SST team, the County secured three incentive reservations for the installation of renewable energy systems coupled with energy storage capacity on the County Campus, La Plaza, and at the Santa Rosa Veteran's Hall. Upon approval, the General Services, Energy and Sustainability staff can apply funds to cover a fourth SGIP reservation fee for the Los Guilicos campus.

The Los Guilicos campus offers an ideal opportunity given that the current incentive levels for large scale storage offer a \$0.35 watt hour base incentive. There is an additional \$0.15 resiliency adder to the base incentive that results in a total \$0.50 watt hour incentive. The Los Guilicos campus qualifies for the resiliency adder because it houses a critical facility providing services to one or more communities in a High Fire Threat Zone and has experienced multiple PSPS events. The Board of Supervisor's approved a FY 20-21 Capital Project to design a micro-grid at the Los Guilicos campus. The SGIP program funding if authorized will pay for the battery storage needed as part of the micro-grid implementation.

Building Name	Address	City	Rated Storage Capacity	Estimated Cost	Maximum SGIP Incentive	Net Cost after SGIP	Maximum Refundable Application Deposit	Energy Cost Savings	Standard Payback without SGIP	Standard Payback with SGIP
Central Plant*	2680 Ventura	Santa Rosa	6MWH	\$5,000,000	\$2,975,000	\$2,025,000	\$148,750	\$273,784	18.3	7.4
Santa Rosa Veterans Hall	1351 Maple Ave	Santa Rosa	200KWH	\$250,000	\$170,000	\$80,000	\$8,500	\$10,746	23.3	7.4
La Plaza*	2300 County Center Drive	Santa Rosa	400KWH	\$500,000	\$160,000	\$340,000	\$8,000	\$28,411	17.6	12.0
		Sum	6.6 MWH	\$5,750,000	\$3,305,000	\$2,445,000	\$165,250	\$312,941		

Table reflecting prior SGIP reservations and refundable reservation fees. The Central Plant and La Plaza did not make it into the lottery process for the Large Storage Resiliency incentive pool. Instead, they were reserved in a Large Storage pool at a lesser incentive rate, thus not fully utilizing the Board approved rebate application fee of \$165,250.

On June 9, 2020, your Board approved the use of \$156,750 from the FY 19-20 Deferred Maintenance and \$8,500 from the Veterans Building capital improvement fund to pay the refundable application fees for the Central Mechanical Plan, La Plaza building projects, and the Santa Rosa Veterans building project respectively. If approved, a budgetary adjustment for appropriations will be included in an upcoming Consolidated Budgetary Adjustment Board item. The fourth application for Los Guilicos would also come from the previously authorized remaining Deferred Maintenance funding. As shown in the table above, the total application fee for all projects falls within the approved amount from the prior Board decision. The table below illustrates the properties submitted for SGIP incentives, the capacity, storage size, incentive amount, application fee, status, and funding source for the refundable application fee.

Current County SGIP Applications						
Site	Surge Capacity (kW)	kWh Storage	Incentive	Application Fee	Funding source	Status
La Plaza	200	800	\$ 240,000.00	\$ 12,000.00	Deferred Maintenance	Confirmed
Santa Rosa Vets	52.5	210	\$ 178,500.00	\$ 8,925.00	Vet's Hall	Confirmed
Central Mechanical Plant	2092.8	8371.2	\$ 1,145,620.00	\$ 57,281.00	Deferred Maintenance	Confirmed
Los Guilicos	610.4	2441.6	\$ 1,110,400.00	\$ 55,520.00	Deferred Maintenance	Pending
Totals	2955.7	11822.8	\$ 2,674,520.00	\$ 133,726.00		

Microgrids - Greenhouse Gas Emission Reductions and Resiliency

Greenhouse gas emission (GHG) reductions may be achieved through the installation of a microgrid, depending upon the design of the microgrid. The installation of energy storage systems will reduce County utility costs by avoiding demand charges and consumption of electricity during peak hours. The reduction of GHGs will be realized through the installation of a generation system (i.e. solar electric system) that accompany and “feeds” the energy storage system.

Currently, the Los Guilicos Campus has 1.291 Megawatts of installed solar electricity, resulting in an annual reduction of 1,513 tons worth of GHG emissions. The SGIP reservations secure incentives for battery storage systems and assume the installation of an additional 1.81 Megawatts worth of solar electricity, resulting in the reduction of another 2,121 tons worth of GHG emissions.

Combined, the County could expect a reduction of 3,634 metric tons of carbon dioxide per year. In addition, the County will have a resiliency benefit in the installation of a microgrid. This type of PV and Battery storage system described above can allow the County to “island” from PG&E’s electric grid and operate as a stand-alone entity. The stored power in the batteries can maintain continuity of power. The ability to “island” builds the resiliency of our government services ensuring that we can remain open during power outages and do so with “green power”.

Strategic Plan Alignment

Participation in the PG&E SST and SGIP programs enable the County to make progress towards implementation of the Board of Supervisors Climate Ad Hoc and Strategic Planning objectives. These include objectives in the Climate Action and Resiliency Pillar and in the Resilient Infrastructure pillars:

Climate Action and Resiliency Pillar

Goal 3: Make all County facilities carbon free, zero waste and resilient

Objective 1: Design or retrofit County facilities to be carbon neutral, zero waste and incorporate resilient construction techniques and materials.

Objective 3: Invest in County owned facilities, establishing carbon eliminating microgrid technology and improving energy grid resilience to reduce the impact of power loss during power shutdowns and natural disasters (floods, fires, earthquakes), prioritizing critical infrastructure such as command and communications facilities.

Resilient Infrastructure Pillar

Goal 2: Invest in capital systems to ensure continuity of operations and disaster response.

Objective 2: Invest in electric power resiliency projects at County facilities, including Veteran’s Buildings, used for evacuation sites, warming/cooling centers, or as alternate work facilities for delivery of critical services.

Without participation in the SST and SGIP programs the County would have to rely upon existing resources and limited capital project funding to accomplish the Strategic Planning objectives. Both programs offer an opportunity to leverage resources, expertise and available incentives.

Prior Board Actions:

- 6/9/2020 - Application for the Self Generation Incentive Program and Payment of the Application Deposit

FISCAL SUMMARY

	FY 20-21 Adopted	FY21-22 Projected	FY 22-23 Projected
Expenditures			
Budgeted Expenses	\$55,520		
Additional Appropriation Requested			
Total Expenditures	\$55,520		
Funding Sources			
General Fund/WA GF			
State/Federal			
Fees/Other			
Use of Fund Balance	\$55,520		
Contingencies			
Total Sources	\$55,520		

Narrative Explanation of Fiscal Impacts:

In the event the Los Guilicos SGIP application reservation is accepted, the refundable application fee of \$55,520 will be paid using remaining Deferred Maintenance fund balance from the previously approved amount for SGIP projects, and will result in SGIP maximum incentive amount of \$1,110,400.

Staffing Impacts:			
Position Title (Payroll Classification)	Monthly Salary Range (A-I Step)	Additions (Number)	Deletions (Number)

Narrative Explanation of Staffing Impacts (If Required):

None

Attachments:

Attachment A – Case Study of State DMV SST Program

Attachment B – Diagram showing the timeline of the process to achieve IGA's and create a Master Plan

Attachment C – SST Fact Sheet 2019

Attachment D – 2008 Comprehensive Energy Project Staff Report Summary

Related Items "On File" with the Clerk of the Board:

None