



Contract No: 20371

**CAMBRIA COMMUNITY SERVICES DISTRICT
INVESTMENT GRADE AUDIT WORK ORDER**

This Work Order (“Work Order”), effective as of the date of the latest signature executing this agreement (“Work Order Effective Date”), is entered into by Cambria Community Services District, an independent special district in the state of California (“Customer” or “the District”), and Pacific Gas and Electric Company (“PG&E”). Customer and PG&E are collectively the “Parties”. This Work Order is subject to the terms and conditions of the Master Service Agreement between Customer and PG&E, dated January 10, 2020 (“Service Agreement”).

Having completed the 100% Preliminary Energy Assessment (“PEA”) Report, titled “Preliminary Energy Assessment Report for Cambria Community Services District,” (submitted on February 20, 2019 and revised on May 6, 2019), pursuant to the provisions of the Service Agreement and agreement between the Parties, Customer now wishes to engage PG&E to perform the services defined below in Section 1:

PROJECT NAME:	Cambria Community Services District – Investment Grade Audit
PROJECT LOCATION:	Cambria, CA 93428 (“Project Site”) Waste Water Treatment Plant, 5500 Heath Lane Various District Sites specified under Exhibit A (“SOW”)
VALUE OF WORK ORDER:	\$688,404

1. SCOPE OF WORK, SUBCONTRACTORS, AND TERM

- 1.1. Scope of Work. PG&E will provide those energy assessment services (“Services”) set forth in Exhibit A (“SOW”), which is attached hereto and incorporated by reference herein.
- 1.2. Subcontractors. PG&E reserves the right to engage third party subcontractors (“Subcontractors”) to perform any portion of the SOW. PG&E agrees that, as between PG&E and Customer, PG&E is responsible for any Subcontractor’s performance of the SOW. And unless otherwise described in this Work Order, the fees and costs PG&E bills to Customer will include any and all fees and compensation due to any Subcontractors. PG&E is responsible for the payment of any compensation, monies, wages or other payment due or allegedly due Subcontractors. For purposes of this Work Order, PG&E and its Subcontractors shall be collectively referred to as “PG&E”.
- 1.3. Term. This Work Order shall commence upon the Work Order Effective Date and shall continue until all of the Services are complete; unless sooner terminated or extended as permitted under the Service Agreement (the “Work Order Term”). Contractor shall complete the Services in approximately eight (8) months from the date of NTP as described in Exhibit A (*Scope of Work*) herein.



Contract No: 20371

2. CUSTOMER RESPONSIBILITIES

Customer will provide PG&E personnel and Subcontractors with reasonable access to the Project Site facilities and areas contemplated by the SOW, suitable office space, and other reasonable accommodations necessary to permit PG&E personnel and its Subcontractors to perform the Services in the SOW. While working on the Project Site, Customer may request that the PG&E Project team personnel be located in an area adjacent to Customer's subject matter experts and technical personnel, and Customer will provide PG&E with all necessary security badges and clearances, consistent with Customer's vendor policies. Customer will provide PG&E and its Subcontractors relevant Project Site information or documents necessary to perform the SOW, including but not limited to existing facility utility mapping, construction drawings, equipment data, and operation and maintenance data.

3. DELIVERABLES

As described in the SOW, the "Deliverables" that PG&E will provide to Customer include:

- IGA Kickoff Meeting to discuss project goals, scopes, process, access requirements, communication protocol, Utility Tariffs and schedule
- Updated utility information for Electric, Water and Natural Gas for Utility Analysis
- Additional staff interviews and site audits, including energy metering, to enhance and verify information collected in the PEA and to establish utility baselines for each measure.
- All necessary work to develop firm fixed implementation pricing for Energy Conservation Measures ("ECM") 1-12 ("Design ECMs") including:
 - Scopes of Work (SOW)
 - 30% (estimated) mechanical, electrical, structural and instrumental / controls design
 - Competitive contractor selection including packages, site walks, RFI management, submittal evaluation and selection
 - Detailed analysis of utility and other operational cost savings, installation cost, and constructability
 - Specific work required at the ECM level is detailed in the SOW.
- Perform all necessary work to develop preliminary pricing for the ECMs 13-17 ("Feasibility ECMs"):
 - Preliminary SOW & pricing
 - Design sketches
 - Preliminary analysis of utility and other operational cost savings and constructability
 - Design sketches as required
- Workshop Meetings with District staff to discuss the findings and recommendations developed during the IGA. The meetings will be organized as follows:
 - Kick-Off Meeting
 - Utility Baseline Review



Contract No: 20371

- ECMs
 - Initial ECM Development Workshop focused on Feasibility ECMs
 - 50% Development Review
 - 90% Development Review
- Construction/Financing Workshop
- Final IGA Report (100%), which will include:
 - Executive Summary
 - Detailed Utility Analysis
 - Detailed Development of Recommended ECMs
 - Firm Fixed Implementation Proposal
 - All supporting design information including basis of design documentation, design drawings, subcontractor & material quotes.
 - 30% Design Completion for Design ECMs
 - Preliminary Construction Schedule
 - PG&E Electric Service Upgrade Plan
 - Financial Analysis that includes Cost Benefit Analysis and Firm-Fixed Project Cost Estimates
 - Funding Options and Recommendations, Including applicable grants, low-interest loans, rebates and incentives
 - Feasibility Assessment Report for Feasibility ECMs

4. MODIFICATIONS

If a modification to this Work Order is necessary, the Parties agree to follow the modification process set forth in Section II.B.5 of the Service Agreement.

5. AUTHORIZATION

Upon receiving this Work Order, Customer will review the Work Order and SOW to verify acceptability of the terms. Customer's execution of this Work Order indicates its acceptance of the terms and conditions set forth herein and shall serve as a Notice to Proceed.

6. PAYMENT

- 6.1. The total cost for the work described herein is six-hundred-and-eighty-eight-thousand, four-hundred-and-four-dollars (\$688,404.00). Mobilization in the amount of one hundred and sixty thousand dollars (\$160,000.00) is due and payable at the time of Notice to Proceed. The balance of the cost shall be due and payable under the following options: (1) in the event that Customer elects NOT to proceed with any implementation of the project, the remaining balance will be due and payable within ninety (90) days of receipt of the Final IGA Report; or (2) in the event that



Contract No: 20371

Customer elects to proceed with any implementation project, the balance for the audit Services will be added to PG&E's total project implementation costs.

6.2. Each PG&E invoice will reference this Work Order and be submitted to Customer's billing address, which is Cambria Community Service District, P.O. Box 65, Cambria, CA 93428. Customer must render, or instruct its financial institution to render, all payments to PG&E within thirty (30) days from the invoice date. Each payment made by Customer or its third-party designee must reference this Work Order and invoice number and be mailed to:

PACIFIC GAS AND ELECTRIC COMPANY
ATTN: SST Manager, Business Development
245 Market Street, Mail Code: N10D
San Francisco, CA 94105

6.3. Payment Disputes. If a payment dispute arises under this Work Order that is not settled promptly in the ordinary course of business, the parties must first seek to resolve any such dispute between them by negotiating promptly in good faith negotiations. These negotiations will be conducted by the respective designated senior managers (Director Level or above) of each party responsible for their relationship and will be escalated internally by each party as reasonably necessary to seek resolution of the dispute. If the parties are unable to resolve the dispute between them through these negotiations within thirty (30) business days following their commencement (or within such other period as the parties may otherwise mutually agree upon), then the parties will escalate the dispute to their most senior executives within their organization (VP level or above). Notwithstanding anything to the contrary in the Service Agreement or this Work Order, after the termination of the initial thirty (30) day negotiation period to resolve the dispute, PG&E may temporarily suspend its performance of the Implementation Work until such dispute has been resolved.

7. NOTIFICATIONS AND INTERFACE

Both Parties shall contact and/or deliver written notices (email is acceptable) to the business contacts below in the normal course of business, and in the event of any problems which may significantly affect the performance of the SOW under this Work Order.

BUSINESS CONTACTS:

CAMBRIA COMMUNITY SERVICES DISTRICT

Name John Allchin
Title Waste Water Systems Supervisor

PACIFIC GAS AND ELECTRIC COMPANY

Name Brent Patera
Title Business Development Manger



Contract No: 20371

Address 5500 Heath Lane
Cambria, CA 93428

Telephone (805) 927-6221

Email jallchin@cambriacsd.org

Address 235 Market St.

San Francisco, CA 94105

Telephone (415) 265-7232

Email Brent.Patera@pge.com

CAMBRIA COMMUNITY SERVICES DISTRICT BILLING CONTACT:

Name Pamela Duffield

Title Finance Manager

Address P.O. Box 65
Cambria, CA 93428

Telephone (805) 927-6118

8. OWNERSHIP OF DELIVERABLES

- 8.1. Ownership and title to any Deliverable produced by or on behalf of PG&E pursuant to this Work Order will be transferred to Customer upon Customer’s full payment for such Deliverable and no further agreement will be necessary to transfer ownership to Customer. PG&E shall furnish Customer all necessary copies of data used to prepare the documents that Customer requires to complete its review and approval process.
- 8.2. The Parties understand and agree that all calculations, drawings and specifications, whether in hard copy or machine-readable form, are intended for one-time use in the performance of the SOW and any implementation thereof.
- 8.3. PG&E shall not be liable for any claims, liabilities, or losses arising out of, resulting from, or in any way connected with, Customer’s use of the Deliverables for other non-PG&E projects, except as permitted by PG&E in writing.
- 8.4. If Customer terminates this Work Order prior to PG&E completing the SOW, Customer will pay PG&E on a percentage-of-completion basis. Upon receiving such payment, PG&E will deliver to Customer the Deliverables in the state of completion they were in when Customer terminated. Such Deliverables will be deemed provided “AS IS” and “WITHOUT WARRANTY” but with all ownership rights otherwise provided in this Work Order. For clarity, the warranties in Section II.B.7.b of the Service Agreement shall not apply to such Deliverables.

9. RELEASE OF REPORTS AND INFORMATION

The Deliverables PG&E prepares as part of the SOW under this Work Order are the Customer’s property, and PG&E will not make them available to any individual or organization without Customer’s prior written approval; provided such restriction does not apply to: (a) PG&E’s agents, employees, consultants,



Contract No: 20371

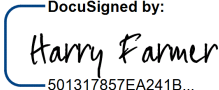
representatives, or Subcontractors performing any portion of the SOW hereunder, or (b) to regulatory authorities and government agencies.


10. AUTHORITY

Each Party represents and warrants that the individual signing below, as well as any Change Orders and approvals hereunder, has and shall have all requisite power and legal authority to bind the Party on whose behalf he/she is signing to that Party's obligations hereunder. IN WITNESS THEREOF, the Parties agree to be bound by this Work Order as of the Work Order Effective Date set forth above.

CAMBRIA COMMUNITY SERVICES DISTRICT

PACIFIC GAS AND ELECTRIC COMPANY

Signature: 
DocuSigned by:
501317857EA241B...
Print Name: Harry Farmer
Title: Board President
Date: 1/23/2020

Signature: 
DocuSigned by:
E54DAD01D8614F6...
Print Name: Margaret Murphy
Title: Director, New Revenue Development
Date: 1/22/2020



Contract No: 20371

EXHIBIT A SCOPE OF WORK

This Exhibit A to the Investment Grade Audit Work Order describes the scope of work, timelines and cost for the development of energy conservation measures (“ECMs”) and/or energy generation opportunities identified and defined in the Preliminary Energy Assessment (“PEA”) Report titled: “Preliminary Energy Assessment Report for Cambria Community Services District,” submitted on February 20, 2019 and revised on May 6, 2019 as well as additional ECMs that were originally excluded from the PEA, included herein as per Customer’s request. This SOW includes all costs for professional consulting and engineering services required to complete the Scope of Work defined below:

ENERGY CONSERVATION MEASURES

PG&E will evaluate the seventeen (17) ECMs shown in Table 1 below. These ECMs are described in the PEA.

Table 1: Recommended ECMs

ID	ECM Description	Site	Process Area	Level of Analysis
1	Influent Flow Equalization	WWTP	Equalization Basins (New)	30% Design
2	Influent Lift Station Modifications	WWTP	Influent Lift Station	30% Design
3	Modified Ludzak-Ettinger Process Upgrade	WWTP	Aeration Basins	30% Design
4	Blower System Improvements	WWTP	Blower Room and Aeration Basins	30% Design
5	RAS and WAS Pumping Improvements	WWTP	Aeration Basins	30% Design
6	Sludge Thickening	WWTP	Solids Processing Area	30% Design
7	Electrical Upgrades	WWTP	Control and Generator Building	30% Design
8	Backup Power	WWTP	Control and Generator Building	30% Design
9	SCADA System	WWTP	Communications Systems	30% Design
10	Secondary Water System (3W) Improvements	WWTP	3W Station	30% Design
11	Effluent Pump Station Improvements	WWTP	Effluent	30% Design
12	Sewer Lift Stations (B-1 and B-4)	Collection	Lift Stations	30% Design



Contract No: 20371

13	Well Sites	Water	Supply	Feasibility Analysis
14	Booster Stations	Water	Distribution	Feasibility Analysis
15	Storage Tanks	Water	Distribution	Feasibility Analysis
16	Facilities and Renewable Resources	Various	Admin & General	Feasibility Analysis
17	Tertiary Treatment	WWTP	Treatment	Feasibility Analysis

INVESTMENT GRADE AUDIT (IGA) ACTIVITIES AND DELIVERABLES (GENERAL)

The IGA will consist of the following activities that are integral to all ECMs:

- Conduct IGA Kickoff Meeting with the District to discuss project goals, scopes, process, access requirements, communication protocol, Utility Tariffs and schedule.
- Acquire updated utility information for Electric, Water and Natural Gas for Utility Analysis.
- Acquire additional, detailed, ECM-specific information from the District as listed by ECM below.
- Conduct additional staff interviews and site audits, including energy metering, to enhance and verify information collected in the PEA and to establish utility baselines for each measure.
- Perform all necessary work to develop firm fixed implementation pricing for ECMs 1-12 (“Design ECMs”) in Table 1 above, including:
 - Scopes of Work (SOW)
 - 30% (estimated) mechanical, electrical, structural and instrumental / controls design
 - Competitive contractor selection including packages, site walks, RFI management, submittal evaluation and selection
 - Detailed analysis of utility and other operational cost savings, installation cost, and constructability
 - Specific work required at the ECM level is detailed in the respective sections below
- Perform all necessary work to develop preliminary pricing for the ECMs 13-17 (“Feasibility ECMs”) in Table 1 above:
 - Preliminary SOW & pricing
 - Design sketches
 - Preliminary analysis of utility and other operational cost savings and constructability
 - Design sketches as required
- Conduct Workshop Meetings with District staff to discuss the findings and recommendations developed during the IGA. The meetings will be organized as follows:
 - Kick-Off Meeting
 - Utility Baseline Review
 - ECMs
 - Initial ECM Development Workshop focused on Feasibility ECMs
 - 50% Development Review



Contract No: 20371

- 90% Development Review
 - Construction/Financing Workshop
 - Upon conclusion of the IGA, a **Final Report** will be issued which will include:
 - Executive Summary
 - Detailed Utility Analysis
 - Detailed Development of Recommended ECMs
 - Firm Fixed Implementation Proposal
 - All supporting design information including basis of design documentation, design drawings, subcontractor & material quotes.
 - 30% Design Completion for Design ECMs
 - Preliminary Construction Schedule
 - PG&E Electric Service Upgrade Plan
 - Financial Analysis that includes Cost Benefit Analysis and Firm-Fixed Project Cost Estimates
 - Funding Options and Recommendations, Including Applicable Grants, Low-Interest Loans, Rebates and Incentives
 - Feasibility Assessment Report for Feasibility ECMs

IGA ACTIVITIES AND DELIVERABLES (ECM-SPECIFIC)

1. ECM-1 Influent Flow Equalization

- Assess condition of existing welded equalization tank
- Review plant flow records and confirm size of equalization tank(s)
- Develop hydraulic profile from lift station through new screen, grit removal, and proposed equalization tanks
- Develop cost comparison of rehabilitating existing welded tank with new liner or new coating; constructing two new concrete tanks; and constructing two new glass-coated bolted steel tanks
- Develop preliminary size and description of major equipment items, including blowers and enclosure, transfer pumps, coarse bubble diffusers, valves, process instrumentation, and piping

2. ECM-2 Influent Lift Station Modifications

- Review plant flow records and confirm design criteria for new pumps
- Develop system curve for influent lift station and four (4) priority collection system pumps
- Evaluate potential wet well improvements for influent pumps including baffling to improve flow distribution
- Evaluate potential improvements for collection system pumps
- Review and confirm options for pump type with District staff
- Confirm number and flow range of pumps over a range of motor speeds



Contract No: 20371

- Develop preliminary size and description of major equipment items, including new pumps, process instrumentation including flow meter(s), and piping
- Develop scope of work and design to integrate collection system pumps into SCADA system

3. ECM-3 Modified Ludzak-Ettinger Process Upgrade

- Review plant flow and water quality records and confirm design criteria
- Confirm proposed anoxic and aerobic basin size and configuration from prior studies
- Determine recirculation and waste activated sludge flows and aeration requirements under a range of operating conditions
- Develop preliminary piping and mechanical plan for review by District staff
- Develop preliminary size and description of major equipment items, including new anoxic mixer(s), diffusers, valves, process instrumentation, and piping

4. ECM 4 – Blower System Improvements

- Determine range of air requirements under various influent loading conditions based on analysis in ECM 3
- Develop description of process instrumentation (including air flow meters and dissolved oxygen probes)
- Evaluate options for upgrading / retrofitting blower system
- Develop scopes of work and preliminary design for recommended upgrades/retrofit
- Develop new sequences of operation to optimize system operation

5. ECM-5 RAS and WAS Pumping Improvements

- Perform assessment of visible surfaces within scum pit and RAS wet well
- Develop description of RAS pumps, WAS control valve, flow meters, process instrumentation, piping, valves, scum troughs, and scum pumps

6. ECM-6 Sludge Thickening Improvements

- Review plant sludge quality and flow records
- Assess capacity, condition and improvement options for existing thickener and screw press
- Confirm size of proposed glass-coated bolted steel sludge storage tank(s)
- Develop preliminary layout of biosolids handling area
- Develop preliminary layout of roll-off area
- Prepare lifecycle cost comparison of (1) onsite sludge storage and (2) roll-off storage with more frequent disposal
- Review and confirm preferred alternative with District staff



Contract No: 20371

7. ECM-7 & ECM-8 Electrical Upgrades and Backup Power

- Evaluate and develop retrofit solution for power requirements (hp and voltage) for new motors and loads in proposed ECMs
- Size and specify replacement solution for standby generator and transfer switch

8. ECM-9 SCADA System

- Develop preliminary process and instrumentation diagrams for coordination with SCADA design
- Develop scope of work for all necessary SCADA upgrades

9. ECM-10 Secondary Water System (3W) Improvements

- Review condition of existing wet well, pumps, and exposed piping
- Determine design criteria (flow and pressure) for 3W system
- Evaluate cost/benefits of variable frequency drives compared to hydro pneumatic storage
- Review and confirm solution with District staff
- Recommend improvements to existing system or replacement with new pumps and valves
- Develop scopes of work for new pumps, valves, and appurtenances

10. ECM-11 Effluent Pump Station Improvements

- Field review effluent pipeline alignment, air release valves, and other appurtenances
- Confirm design criteria (flow and head requirements) for effluent pumps
- Determine if constant speed or variable speed pumping should be implemented
- Perform preliminary surge analysis on effluent pump and force main system
- Develop recommendations for cleaning pipeline, including provisions for a "pigging" station
- Determine repair and rehabilitation recommendations for existing coatings and equipment
- Develop scopes of work for new pumps, valves, instrumentation, and appurtenances

11. ECM-12 Sewer Lift Stations (B1 and B4)

- Develop design flows for each lift station based on available plant records, review of upstream land uses, and estimated peaking factors
- Confirm design criteria (flow and head requirements) for submersible pumps at each station
- Confirm size (depth and operating ranges) for wet well
- Evaluate dimensions and visible condition of existing wet well to determine if it can be used or a new wet well should be constructed
- Develop preliminary layout of B1 and B4 for review by District staff
- Develop description of new pumps, valves, access hatches, instrumentation, and appurtenances
- Develop scope of work and 30% design to integrate lift stations into existing SCADA system



Contract No: 20371

- Conduct Feasibility Assessment for four (4) additional Lift Stations

12. ECM-13 Well Sites (5 Total)

- Investigate adding back-up power for the four (4) non-equipped sites
- Evaluate the San Simeon pumps to determine the best retrofit option to optimize energy efficiency and operational performance
- Evaluate San Simeon electrical transfer switch and electrical panel to determine potential retrofit options
- Evaluate alternatives to tie new backup generation and booster pumps into SCADA system
- Confirm design criteria, develop preliminary scopes of work, and prepare design sketches

13. ECM-14 Booster Stations (3 Total)

- Evaluate Rodeo Grounds and Stewart pumps to determine best retrofit options to optimize energy efficiency and operational performance
- Evaluate alternatives to tie pumps into SCADA system
- Confirm design criteria, develop preliminary scopes of work, and prepare design sketches

14. ECM-15 Storage Tanks (4 Total)

- Evaluate issues related to booster pumps and storage tanks and feasibility of installing two (2) new tanks and booster pumps
- Evaluate alternatives to tie pumps into SCADA system
- Confirm design criteria, develop preliminary scopes of work, and prepare design sketches

15. ECM-16 Facilities and Renewable Resources

- Audit Veteran's Building, F&R Shop, Public Restrooms, Street Lights, and Fire Stations to identify energy efficiency, water conservation, and infrastructure upgrades
- Assess available siting locations for PV generation (ground, roof and/or carport)
- Assess available siting location for Electric Vehicle (EV) charging stations
- Assess opportunities to combine PV and EV charging
- Assess opportunities to deploy energy storage (battery) to minimize demand charges
- Prepare preliminary energy, sizing and economic analysis for confirmed ECMs
- Confirm design criteria, develop preliminary scopes of work, and prepare design sketches

16. ECM-17 Tertiary Filtration

- Evaluate plant hydraulics and treatment requirements
- Evaluate the feasibility of constructing tertiary facilities at the WWTP



Contract No: 20371

- Develop preliminary scope of work and budgetary pricing
- Prepare conceptual sketches
- Prepare preliminary analysis of operational cost savings

ASSUMPTIONS AND CLARIFICATIONS

The following assumptions and clarifications apply to the scope and costs presented in this proposal:

- PG&E assumes that specified facility data/information will be made available in a timely fashion including utility bills, facility construction drawings, equipment data, and operations and maintenance data.
- PG&E will require close coordination with the District facility staff and other District personnel in order to successfully complete the IGA.
- The District will arrange and provide access for PG&E and consulting personnel to all facility areas and equipment as needed to complete the work.
- PG&E assumes that appropriate personnel will be available during the site visits and meetings and will also be available by email and telephone for follow-up consultations.
- Any additional work requested by the District will be priced based on the agreed to SOW.
- District will provide available data and conduct additional analyses (including flow monitoring, pressure monitoring/recording, laboratory analyses, and other tests) if required for development and/or design. PG&E to provide testing protocols for use in collecting this data.
- PG&E has the right to rely on record drawings provided by the District in developing preliminary plans under the IGA
- PG&E has the right to rely on prior studies provided by the District in determining design criteria and developing preliminary plans

SCHEDULE

PG&E is prepared to begin work on the IGA immediately upon being provided a Notice to Proceed (NTP) from the District. Upon receipt of the NTP, PG&E will provide a schedule for the IGA work and arrange the kick-off meeting. Excluding review and/or administrative time required by the District, the estimated duration of the IGA is eight (8) months from the date of NTP.



Contract No: 20371

**EXHIBIT B
SCHEDULE OF VALUES**

<u>PG&E SST IGA - CCSD</u>								
Site:		Cambria Community Services District						
Project:		PG&E SST IGA - CCSD						
Invoice No.:		Initial SOV						
Period to:		N/A						
<u>SCHEDULE OF VALUES</u>								
Task	Feature of Contract Work	Price	Total % Complete	Prior % Complete	Current Invoice Period Approx Add'l % Completed	Current Invoice Amount	Prior Invoiced Amount	Total Earned to Date
001	Mobilization and Bond	\$160,000	0%	0%	0%	\$ -	\$ -	\$ -
002	Final IGA Submission	\$528,404	0%	0%	0%	\$ -	\$ -	\$ -
	TOTALS	\$688,404				\$ -	\$ -	\$ -