Monterey Renewable Energy and Utility Reliability Program: Enhanced Gas Conditioning

Budget Narrative

The following budget narrative discusses items to be funded through the U.S. EPA CPRG Program. Expenditures are detailed to show the budget breakdown and connect the various expenditures with the required work tasks to complete the Project. Budget categories that list no costs, work tasks, or project component, are listed as such.

The project budget was derived using estimates based on previous but similar work and consultant cost estimates. Because the elements of this project are public works construction, costs assume payment of prevailing wage and include budget for labor compliance activities.

Requested Funding

The proposed project requests a total of $49,925,000 in grant funding. The grant funding would be leveraged to fund activities associated with the construction of the second phase of our Monterey Renewable Energy and Utility Reliability Program – Enhanced Gas Conditioning, along with construction management of the project and community engagement activities.

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	TOTAL
DIRECT COSTS					
Personnel					*$0*
TOTAL PERSONNEL	*$0*	*$0*	*$0*	*$0*	*$0*
Fringe Benefits					*$0*
TOTAL FRINGE BENEFITS	*$0*	*$0*	*$0*	*$0*	*$0*
Travel					*$0*
TOTAL TRAVEL	*$0*	*$0*	*$0*	*$0*	*$0*
Equipment					*$0*
TOTAL EQUIPMENT	*$0*	*$0*	*$0*	*$0*	*$0*
Supplies					*$0*
TOTAL SUPPLIES	*$0*	*$0*	*$0*	*$0*	*$0*
Contractual					
Contractor to perform the construction of the Gas Conditioning Facilities for a period of 24 months	*$0*	*$11,875,000*	*$23,750,000*	*$11,875,000*	*$47,500,000*
Contract to perform Construction Management Services for the construction of	*$0*	*$593,750*	*$1,187,500*	*$593,750*	*$2,375,000*

the Gas Conditioning Facilities over a period of 24 months					
TOTAL CONTRACTUAL	*$0*	*$12,468,750*	*$24,937,500*	*$12,468,750*	*$49,875,000*
Other					
Community Engagement and Program Outreach	*$15,000*	*$15,000*	$10,000	$10,000	*$50,000*
TOTAL OTHER	*$15,000*	*$15,000*	*$10,000*	*$10,000*	*$50,000*
TOTAL DIRECT COSTS	***$15,000***	***$12,483,750***	***$24,947,500***	***$12,478,750***	***$49,925,000***

INDIRECT COSTS					
Indirect Costs					*$0*
TOTAL INDIRECT	***$0***	***$0***	***$0***	***$0***	***$0***

TOTAL FUNDING					
Total	***$15,000***	***$12,483,750***	***$24,947,500***	***$12,478,750***	***$49,925,000***

Budget Breakdown

Salaries and Wages
There are no salaries and wages being claimed as grant requested funds.

Fringe Benefits
There are no fringe benefits being claimed as grant-requested funds.

Travel
There are no travel expenses being claimed as grant-requested funds.

Equipment
The selected contractor will purchase equipment for the project as part of their contract.

Supplies and Materials
There are no supplies and materials being claimed as grant-requested funds.

Contractual

Expenditures related to this funding request are primarily categorized as contractual with $49,875,000 supporting construction-related contracts. Detailed descriptions associated with the contractual costs for construction of the proposed Project are provided below and represent Tasks One through Four in the Workplan Narrative.

- **Design**
  Task 1 is detailed design. There are no design costs being claimed as grant requested funds.

- **Construction ($47,500,000)**
  Task Two (Bid-Award) does not require EPA funding as M1W is not requesting support for internal staff time to solicit the needed contractual support. Tasks Three (Construction) and Four (Post-Construction) will be executed through contractual support. The costs associated with construction and post-construction relate to the scope of work to construct, install, and startup of the proposed project – the Monterey Renewable Energy and Utility Reliability Program – Gas Conditioning. All awarded contracts will follow competitive procurement standards set for in 2 CFR 200.317 – 2 CFR 200.327. The contractor will furnish all materials, equipment, supplies, and labor, perform all operations, and conduct all the work.

  The costs for Tasks Two and Three are estimates based on similar tasks performed as part of other public works projects.

  Task 2. Bid Award
  There are no bid award activities being claimed as grant-requested funds.

  Task 3. Construction and Installation.
  The goal of this task is to complete all on-site construction work and to install all the procured equipment as needed for the project.

  Major elements of construction:
    - Purchase of equipment
    - Construction of gas conditioning facilities
    - Construction of gas injection station

  3.1. Purchase of Equipment:

    i. Procure the equipment in accordance with the approved shop drawings.
    ii. Coordinate with the supplier to arrange for timely delivery and installation of the equipment.
    iii. Ensure that the equipment is installed according to manufacturer specifications and industry standards.

  3.2. Construction of Gas Conditioning Facilities:

    i. Biogas from AD typically contains impurities, such as carbon dioxide (CO2) and hydrogen sulfide (H2S). Upgrading technologies (e.g., membrane separation and amine scrubbing) remove these impurities to produce renewable natural gas (RNG).
    ii. Upgraded RNG is compressed to facilitate conveyance to PG&E's gas main located nearby.
    iii. RNG will be injected into PG&E's natural gas pipeline for distribution to consumers.
    iv. The project site is carefully chosen based on factors such as feedstock availability, environmental regulations, and proximity to natural gas infrastructure.
    v. Necessary infrastructure, including gas processing units, and compression equipment, is installed.
    vi. Once construction is complete, the project undergoes commissioning to ensure proper functionality.

vii. Regular monitoring and maintenance are essential to optimize performance and ensure safety.

Timing: The duration of gas upgrading and cleaning depends on the specific technologies employed and the scale of the project. Membrane separation systems typically require less construction time, while amine scrubbing systems may take longer. Factors such as the distance to the natural gas pipeline and the capacity of the compression equipment influence the construction timeline for compression and transmission infrastructure. The combined construction time for steps 3 and 4 of a biogas to RNG project is typically 9-18 months.

3.3 Construction of Gas Injection Station:

i. Determine the optimal connection point and design the necessary infrastructure, including a gas metering and regulation station, pressure control equipment, and safety systems, in partnership with PG&E.
ii. Install a pipeline to connect the RNG production facility to the PG&E transmission line. The pipeline route is carefully planned to minimize environmental impact and ensure safety. Trenching, pipe laying, and backfilling are involved so all CalOHA safety regulations apply.
iii. Construct a metering and regulation station to measure and control the flow of RNG into the transmission line adhering to PG&E's Gas Transmission Interconnection Handbook.
iv. Install safety systems, such as pressure relief valves and leak detection equipment, to ensure the safe operation of the connection.
v. Conduct pressure testing and other tests to verify the integrity and functionality of the connection.

3.4 Commissioning, Testing, and Startup:

i. Commissioning - Validate the performance and operational capabilities of all installed project equipment. The deliverable for this task will be a completed “Zero Punch List” from the Recipient, which will cover all pieces of equipment included in the project. The Zero Punch List will verify all point-to-point connections, label all system components, and process lines, and test all installed equipment to validate the installed functionality of the project system as a component of the Facility. After installation, testing, and commissioning, all components will be inspected by the appropriate inspection agencies to obtain final sign-off prior to commencing operations of the entire project system.
ii. Startup **-** Gather all required personnel to develop written standard operating procedures (SOPs) for the correct operation of all project elements, equipment, appurtenances, and other aspects. The Recipient will also develop troubleshooting protocols for crisis management and complete the initial start-up of the facility. Deliverables for this task include a site-specific, tailored plan to allow for seamless integration of the proposed equipment during the operation period into the Facility and a notice of Project startup.
iii. Onboarding and Training **-** Complete any needed hiring for the project and provide all training and orientation for operations personnel. Training will include Employee Health and Safety (EH&S) training for the Injury and Illness Prevention Program (IIPP), Hygiene and Housekeeping Requirements, Basic Requirements and Instrumentation, Sampling and Data Collection Plan, and all applicable in-house maintenance

procedures. The deliverables for this task will include training agendas, supporting documentation, and employee attendance**.**

Task 4. Post-Construction

i. Close-out of construction contract including all project deliverables such as submittal of as-built plans, completion of punch list items, site clean-up, etc.), and completion of any reports required by contract owner.

- **Construction Management ($2,375,000)**

Construction management will be required to ensure efficient and compliant implementation of Task 3 and Task 4. The costs associated with this element are related to the Construction Management Services. A Request for Proposal (RFP) will go out for the project. In accordance with M1W's RFP guidelines, evaluation/selection of proposals for professional services (e.g. engineering studies, facility design, and construction management) is based on qualifications. Cost proposals are submitted separately and are not reviewed until a preliminary selection is made. Evaluation and ranking of professional services proposals is done by a committee of agency staff. The selected Consultant will support Task 3 and Task 4.

The scope of work associated with Construction Management for both Task 3 and Task 4 includes:

a. Construction Management/Contract Administration.

i. Provide overall coordination of construction management (CM) services, including supervision of contract administration, labor compliance, Disadvantaged Business Enterprises (DBE) programs, field observations, and outside services, such as specialty inspectors and environmental mitigation and monitoring consultants. Schedule and lead Pre-construction meetings and weekly project progress meetings.

b. Construction Administration Services.

i. General Inspection: Provide daily inspections and supervision of the construction contractor's operations as construction progresses, and promptly report and resolve problems regarding performance and/or conformity with the drawings and specifications (100% design drawings and specifications will be provided to proposing firms if requested), including contract administration and construction engineering of the assigned Project. This includes developing and maintaining construction inspection reports and creating and maintaining photographic and video records of pre-construction conditions and construction progress.
ii. Change Orders: Prepare, process, analyze, negotiate, and make recommendations on change orders in accordance with state and federal standard specifications and special provisions for construction contract change orders.
iii. Pre-Construction Conference and weekly Progress Meetings: Assist in the pre-construction meeting with the construction Contractor and other Project participants. This discussion affords all the parties of the contract a common understanding of the proposed work and problems, and possible solutions that may be expected during the life of the contract. Labor compliance, equal employment opportunity, safety requirements, DBE requirements, agreements, and permits shall also be discussed. Prepare and distribute meeting minutes, respond to questions the construction contractor may have, and address issues that need to be resolved before work commences. Appropriate Consultant staff shall attend Weekly Progress Meetings

between the Contractor and M1W. Consultants shall prepare and distribute agendas and minutes/status reports via Procore for all weekly and other Project-related meetings.

iv. Progress Payments and Requests for Quote (RFQ): The Consultant shall be responsible for tracking field quantities, reviewing progress payment requests, and making payment recommendations. Also, the consultant shall create, and review Requests for Quotations related to Design Clarifications or owner requests. The consultant shall analyze and negotiate RFQs and change order responses.

v. Submittals and Requests for Information (RFI): The Consultant shall be responsible for routing/tracking/returning Submittals and RFIs through Procore. As appropriate, final submission and RFI responses shall be made in consultation with M1W and the Project design engineer (Kennedy-Jenks).

vi. Safety and Accidents: Assume the duties of the Project Safety Coordinator. Ensure the construction contractor complies with all safety orders, Federal and State, and permits through normal contract administration procedures. Document all incidents with photographs and written reports. Manage safety precautions for the public in construction areas through the construction contractor.

vii. Start-up, Testing, and Training: Coordinate with the Contractor, M1W, and others on equipment testing (off-site and onsite) and schedule facility start-up and testing activities. This includes assisting M1W's ESDC consultant with reviewing all start-up/testing/training-related submittals and schedules.

viii. Final Walk-through and Final Inspection: Conduct Project walk-throughs prior to construction completion. The consultant shall complete the minutes of the walk-through(s) and provide a copy to M1W. The final walk-through list of attendees shall be coordinated with M1W. The consultant shall complete a final inspection of the Project and the required Final Report forms.

c. Post-Construction Activities.

i. As-Built Plans: Consultant shall maintain its own electronic as-built plan file complete with redline changes or corrections for reference and comparison with Contractor's as-built plan set. The consultant's as-built plan file shall be provided to M1W by the time the punch list is issued. Such plans will be based on information obtained from field measurements and observations made during Project construction and approved contract change orders. Consultant shall review the as-built plan set to ensure it accurately reflects the facilities constructed by the contractor prior to Final Acceptance.

ii. Project Close-out: Assist M1W with Project close-out activities, including but not limited to closing the construction contract (e.g., coordinating with the contractor on fulfilling responsibilities such as submittal of as-built plans, completion of punch list items, site clean-up, etc.), and completion of the report required by funding agencies.

Other

The remaining project components, Task 5 and Task 6, are categorized as other expenditures and detailed below.

- **Task 5. Community Engagement and Outreach Program ($50,000)**
  This includes the development and implementation of Community Engagement and Outreach Plan for the proposed project. The scope of work includes:

  i. Identify the needs of the vulnerable communities in the region.
  Working along the Community Based Organization (CBO) develop work plans to identify the needs of the community.

  ii. Determine viable alternatives to provide energy to vulnerable communities.
  Identify the viability of alternative methods to provide the community with resiliency methods that provide power during critical emergencies or hazard situations.

  iii. Equitable Engagement Plan
  Develop a plan to ensure alignment of community needs and priorities related to equitable planning outcomes, including economic resilience and community climate resilience needs. Feedback from Community workshops will be included in the Engagement Plan.

  iv. Outreach Plan
  Organize a transparent public engagement strategy offering opportunities for input. Engage community-based organizations and co-applicants to include effective outreach strategies that will reach all communities.

  v. Community Workshops
  Facilitate public opportunities for community members and key stakeholders to provide input and review project draft documents.