

RAPIDS 2021 Wastewater Treatment Program Enrollment Application

The Risk Assessment, Process Improvement, and Decision Support (RAPIDS) is a third-party program focused on wastewater treatment process optimization for municipal and public agency wastewater treatment plants (WWTP) within the Pacific Gas and Electric Company (PG&E) service territory. The Program is designed and implemented by Alternative Energy Systems Consulting, Inc. (AESC) to provide technical services and decision support tools to accelerate the implementation of process-based energy management strategies.

RAPIDS brings together experts in biology, chemistry, process design, maintenance reliability, risk mitigation, and system engineering to take a 360-degree view of WWTPs and provide flexible energy management options that simplify efficiency improvements without compromising plant safety, regulatory and compliance objectives, or budget resources. The Program considers four areas of energy management: capital projects and equipment retrofits, biochemical process optimization, behavioral/operational improvements, and pump overhauls. Our approach is designed to identify up to 40% energy savings in the comprehensive Energy Action Plan that leads to continuous energy improvements and a phased capital project schedule to meet the needs of each customer.

RAPIDS accelerates wastewater energy management solutions using three foundational services:

RA Risk Assessment	We consider treatment processes and process optimization projects in terms of risk, risk avoidance, and risk mitigation. We focus on your mission-critical objectives and enhance reliability through energy.
PI Process Improvement	We identify process improvements that address risks, improve operational reliability, visibility, control, and energy performance.
DS Decision Support	We provide deep expertise to analyze the risks and benefits of energy options to enable and accelerate agency decision-making and approvals.

Technical Engineering Services Offered

The RAPIDS program includes the following engineering services:

- Operations & Maintenance Workshop to determine optimization priorities
- Energy Action Plan development
- Energy Efficiency Measure (EEM) analysis
- Failure Modes and Effects Analysis or Consequence of Failure Analysis
- Incentive and On-bill Financing (OBF) application support
- Basis of Design and Preliminary Design Documentation
- Cloud-based real-time submetering equipment deployment



Program Eligibility Requirements

The RAPIDS program is open to wastewater customers who meet the following criteria:

- Wastewater treatment system owned and operated by a city, county, or special district within PG&E service territory
- PG&E service territory includes climate zones 1, 2, 3, 4, 5, 11, 12, 13, and 16
- Receive natural gas and/or electric services from PG&E,
- Participants must be a PG&E customer paying the Public Purpose Program Charge.
- NAICS codes eligible for the Program: NAICS 22132 Public and private sector wastewater treatment and collection systems
- Purchase at least 70% of total energy, or 1 MWh/yr, from PG&E at the discretion of the Program
- Excludes net power producers

The RAPIDS program accepts a wide variety of wastewater energy-savings projects. Measure eligibility will be made at the discretion of the Program on a per-site basis, however, all measures must meet the following criteria:

- Exceed baseline energy performance
- Must Operate at least five years or for the life of the incentivized products
- Be permanently installed
- Cannot overlap with other incentive programs
- Existing Equipment decommissioned and removed from the site

Customers are screened to verify organizational readiness to act, and for energy savings potential over the program period.

What to Expect

Step 1:	•	Complete, Sign & Submit RAPIDS Application
Preparing for Enrollment	•	Participation Agreement Review
	•	Project Enrollment Approval
Step 2: Project Planning	•	Project Site Visit & O&M Workshop
	•	Energy Action Plan
	•	Incentive / Loan Application Submittal to Utility
	•	Utility Project Incentive/Loan Approval
01 0	•	Submetering & Design Assistance
Step 3: Construction and	•	Project Construction
Completion	•	Project Measurement & Verification
Completion	•	Utility Confirms Project Completion

How to Apply

Complete and sign the application. Submit the completed application to RAPIDS@aesc-inc.com



2021 Participation Agreement

Applicant Information				
Facility Name				
Facility Address				
City	State	Zip		
Contact Name		Contact Title		
Contact Mailing A	Address			
City ()	State	Zip		
Phone	Email			
*We will only use your email address to provide timely project information updates.				
Applicant Account Information				
PG&E Electric Account No./Service ID (at facility)				
PG&E Natural Gas Account No. /Service ID (at facility)				
Does the facility have interval meter(s)? \square Yes \square No				
EIN/Federal Tax ID				

Program Incentives

Optional Enabling Incentives*

- Submetering: \$10,000 to \$25,000 per site
- Conceptual Design Assistance: \$12,500 to \$30,000 per site

^{*}Optional enabling incentives will be scaled based on plant size, measure savings potential, and customer commitment. The value of enabling incentives will be subtracted from the customer's final project incentives.



Financial incentives will be available to customers based on verified energy savings, to overcome financial and operational/organizational barriers.

Category	\$/kWh	\$/kW	\$/Therm
Behavioral, Retro-Commissioning and Operational (BRO)	\$0.04	\$50.00	\$1.00
Custom Retrofit (≤ 5 year EUL and AR tocode)	\$0.04	\$50.00	\$1.00
Custom Retrofit (> 5 year EUL and AR to-code)	\$0.12	\$150.00	\$1.00

Project Energy Savings Calculation

Energy savings calculations are custom depending on incentive program rules for Normal Replacement, Accelerated Replacement, retro-commissioning projects, or other measure classification requirements consistent with CPUC Measure Application Types. Project incentives are paid based on verified energy savings. The Project incentives, energy savings projections, and installation costs on this or related to this Project Application Agreement are ESTIMATES only and may vary upon verification of the completed Project's energy savings.

Incentive payments shall only be paid on Projects that exceed the California code or standard practice. The applicable code or standard practice for the Projects is the code or standard practice in place when the Project measure equipment either was installed or altered as defined under Title 24. AESC and PG&E shall validate the Project's baseline, verify the Project's actual energy savings, and determine the Project's incentive to be paid, in compliance with the RAPIDS Program Manual.

Terms and Conditions

I, the Applicant, have read and agree to the following terms and conditions:

- **1. AUTHORITY.** Customer represents and warrants it has the Project Site owner's permission to implement the Project.
- 2. ELIGIBILITY REQUIREMENTS. Eligibility requirements for Projects seeking to participate in the Program: Project must be a wastewater treatment plant and the Project's meter must be charged the public purpose fund surcharge. Project implementation is subject to all California Public Utility Commission (CPUC) regulatory mandates, the Program Project's rules and policies which may change without notice, individually and collectively, include: the RAPIDS Program Manual; the RAPIDS Implementation Plan; and 2019 or most current Statewide Customized Offering Procedures Manual at www.pge.com/customized. Project





- measures will not be replaced within the last 5 years and any other eligibility requirements as required by PG&E.
- 3. PROJECT APPROVAL AND PRODUCT QUALIFICATION. Projects may be required to receive written Project Approval in accordance with the applicable requirements in the Program Manual, which can include the CPUC Energy Division (ED) review and approval for the Project. Until approved, Projects must not remove any existing Project equipment/systems, pre-order, purchase, or install any equipment. Equipment leased, rebuilt, rented, received from warranty or insurance claims, exchanged, or won as a prize; new parts installed in existing equipment, or resale products do not qualify.
- 4. PROJECT DESIGN, FEASIBILITY, INSTALLATION, AND PERMITS. If applicable, PG&E may review the design, construction, operation or maintenance of the Project which does not constitute any guarantee or representation as to the economic or technical feasibility, operational capability, or reliability of the Project measures. Project design, feasibility, installation, and acquisition of permits to implement Customer's Project is between the Customer and the contractor performing the work to implement Customer's project. PG&E shall have no responsibility whatsoever to be responsible for, and under no circumstances be required to obtain any necessary Project permits, materials, labor, costs to develop the Project's scope, final design, acquire bids, hire appropriate licensed contractor(s), verify applicable workforce standards, technical and operational Project feasibility, and other related cost and fees to implement the Project.
- 5. **PROJECT INSTALLATION DEADLINE.** Projects must be completed and fully operational no later than 1 year from the date of the project approval or December 1, 2023, whichever is earlier. If additional time is needed, a formal request must be submitted in writing to AESC. Additional time is not granted unless an extension is formally issued by AESC.
- 6. ACCESS AND INSPECTIONS OF PROJECT SITE. Project inspections, its baseline and performance measurements, are required to be verified upon the Project's completion to determine the final incentive amount to be paid. Enabling incentives are provided to the Customer contingent on participation in the program and the successful completion of the project per the RAPIDS Program Manual. Customer agrees to provide access to AESC, PG&E, its agents and the CPUC to perform these tasks and others such as, Project inspection of pre and post installation equipment to review the existing/baseline energy use measurements.
- 7. PROJECT MATERIAL OR SCOPE CHANGES. If the Project scope or Site conditions materially change or there occurs any non-routine events (i.e. Project site size change, use of additional heating and cooling loads, longer or shorter operating hours), during implementation or after completion impacting the Project energy saving benefit, Customer shall promptly prepare a written detailed narrative about such event(s)or modifications and submit to AESC.
- 8. CUSTOMER'S WITH SELF GENERATION CAPABILITIES. For customers with an existing onsite cogeneration or self-generation, incentives for energy savings in these instances are limited to the Customer's previous 12-month annual energy usage kW, kWh and therm savings purchased from or delivered by the utility on the meter(s), serving the Project measures to be installed.
- **9. INCENTIVE FUNDING.** Incentives are paid on a first-come, first-served basis until depleted and are provided as directed by the CPUC. Incentives may not exceed Project costs.





- **10. CUSTOMERS WITH NON-PG&E ENERGY SUPPLY.** If non-PG&E supply, i.e. generation or deliveries from another commodity supplier, is involved, incentives are paid based only on the energy savings reflected on the electric grid or natural gas system, as solely determined by PG&E.
- 11. PROJECT CERTIFICATIONS. Customers receiving incentives for energy efficiency measures are required to submit a written certification as set forth in CA Public Utilities Code Section 399.4 b(1) and (2) which states in relevance; "prior to receiving any Project Incentive payment, the recipient of the Incentive must certify the Project is complete and complies with applicable permitting and licensing requirements, and verifies that any contractor performing the Project's work was a licensed contractor". Code also requires for HVAC Project measures to submit proof the permit is closure.
- 12. PROJECT COMPLETION SUBMITTAL DOCUMENTATION. To issue an incentive, all relevant and applicable documentation must be submitted involving paid invoices, supplier name, address, phone, itemized listing of products, quantity, manufacturer and model number, Project Certifications, Project final engineering calculations and related documentation used to substantiate the Project's energy savings, proof of HVAC permit closure, and other documentation required in the Project's relevant Program Manual(s) and requested by PG&E.
- 13. ENERGY BENEFITS AND INCENTIVE DISQUALIFICATION. Project incentives, including the optional enabling incentives are made in consideration of PG&E Ratepayers receiving 100 percent of the related energy savings benefit over the life of the completed Project or 5 years, whichever is less. For project's not delivering the 100 percent of its energy savings benefit, Customer shall be responsible to refund PG&E a prorated amount of the Project Incentive for the time PG&E did not receive the Project's energy savings. The prorated amount will be off-set against any amounts due or be payable within 30 days of notification.
- **14. CPUC DISCLOSURE AND RIGHTS.** These terms and conditions can be modified anytime by the CPUC. All Projects are reviewed and approved by CPUC ED staff and Project results, reports, energy usage data, or other related documentation shall be made available to the CPUC upon request. Customer will receive notice of material changes via mail, fax transmission, or email at the address provided in this Project Application Agreement.
- **15. TERM AND TERMINATION.** This Project Application Agreement is effective upon Customer's signature and expires when PG&E receives 100 percent of the Project's energy saving, unless terminated earlier. If this Project Application Agreement is terminated due to Customer's breach of its obligations or as directed by the CPUC, AESC and PG&E shall not be liable for any damages or claims arising from such termination.
- **16. SAFETY AND COMPLIANCE WITH ALL LAWS.** Customer and AESC agree all Project equipment installation and work performed must comply with all federal, state laws, safety requirements and applicable manufacturer instructions.
- 17. NO WARRANTY AND DISCLAIMER. PG&E MAKES NO REPRESENTATION OR WARRANTY, AND ASSUMES NO LIABILITY WITH RESPECT TO QUALITY, SAFETY PERFORMANCE, OPERATIONAL CAPABILITY, RELIABILITY OR ANY OTHER ASPECT OF ANY DESIGN, SYSTEM, OR EQUIPMENT INSTALLED RELATED TO THE PROJECT AND EXPRESSLY DISCLAIMS ANY SUCH REPRESENTATION, WARRANTY OR LIABILITY, INCLUDING ANY WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSES.





- 18. NO OBLIGATION. California consumers are not obligated to purchase any full-fee service or other service not funded by this Program. This Program is funded by California utility ratepayers under the auspices of the CPUC. Los consumidores en California no están obligados a comprar servicios completos o adicionales que no estén cubiertos bajo este programa. Este programa está financiado por los usuarios de servicios públicos en California bajo la jurisdicción de la Comisión de Servicios Públicos de California (CPUC).
- **19. MISREPRESENTATION.** All Project information provided must be true and correct. Information determined to by fraudulent or misleading will result in Customer's Project being disqualified, and this Project Application Agreement being terminated.
- **20. LIMITATION OF LIABILITY.** PG&E & AESC shall not be liable for any costs due to a Project's estimated versus actual energy savings related to the Project Incentive to be paid, Project savings that did not materialize, Project cancellation or implementation cost increase for any reason. In no event shall PG&E or AESC, be liable for any special, incidental, indirect, lost profits, or consequential damages arising from or related to Customer's Project.
- **21. ADVERTISING AND USE OF PG&E'S NAME**. AESC and Customer agree not to use each other's name, PG&E's name or identifying characteristic of customer's Project Site in any published materials absent the written approval of such respective party.
- **22. ASSIGNMENT.** No part of this Project Application Agreement may be assigned by Customer without AESC's written consent, unless the assignment is for the sale of the Project Site.
- **23. PROJECT SITE SALE.** Customer agrees to include these Project obligations under the Project Application Agreement, if still required, as part of a sale or rental agreement involving the Project Site for purposes of assigning the Project to be continued and completed accordingly.
- **24. NO DOUBLE DIPPING.** Customer represents they have not received within the last five years and will not for five years thereafter seek an energy efficiency incentive or rebate offered by PG&E, other Program Administrators, state or local agencies for the Project measures/services under this Project Application Agreement.
- **25. TAX LIABILITY.** Customer acknowledges that receipt of any incentive pursuant to this Project Application Agreement may result in taxable income to the Customer, even if Customer does not directly receive the incentive payment. Customer is solely responsible for payment and reporting any tax liability arising from the incentive paid and should consult with their tax advisor.
- **26. TOXIC MATERIALS.** PG&E and AESC shall have no responsibility for the discovery, presence, handling, removal, or disposal of or exposure to hazardous materials of any kind related to implementing the Project, including without limitation, asbestos, PCBs, or other toxic substances.
- **27. GOVERNING LAW.** This Application shall be construed in accordance with the laws of the State of California and exclusive jurisdiction and venue of the federal and state courts of San Francisco, California to resolve any disputes.





Customer Signature & Acknowledgement of Terms and Conditions

Applicant understands that the Incentive is funded by utility customers through the Public Purpose Programs surcharge. Applicant is interested in improving the energy efficiency of its facility using submetering, design assistance and the financial incentives available.

Applicant agrees to provide the required documentation as requested. Applicant is willing to consider efficiency recommendations which may improve the performance of their facility significantly beyond PG&E Industry Standard Practice requirements.

Applicant understands that participation is voluntary and that it is under no obligation to modify the design or construction of its facility based on resulting recommendations. Applicant also understands that it will receive financial incentives only if it enters into a Program Participation Agreement, its eligibility is established by AESC, the performance of Applicant's facility meets the requirements, and the energy efficiency measures are installed and verified. Applicant also understands that the Optional Enabling Incentives – Submetering and Conceptual Design Assistance are provided contingent on the successful completion of the project. Should the customer fail to complete the project per the RAPIDs Program Manual and PG&E acceptance, the Customer agrees to pay back the full value of the incentive to AESC.

Applicant acknowledges and agrees that their facility is eligible to participate and receive any Program incentives. Applicant has reviewed and agrees to be legally bound by the attached Program terms and conditions which includes, but is not limited to, not removing any existing equipment or systems and/or purchasing or installing any Project energy efficiency measures, until the Applicant receives written Project Approval.

Name (Print)	Title (Print)
Signature	Date
Name (Print)	Title (Print)
Signature	Date