



Pacific Gas and Electric Company

Advanced Pumping Efficiency Program



Natural Gas-Powered Pump Retrofit Incentive Application

The Advanced Pumping Efficiency Program (APEP) is funded through Pacific Gas and Electric Company (PG&E) under the auspices of the California Public Utilities Commission. APEP is intended to encourage energy and water conservation through education and incentives that encourage retrofit of inefficient pumps.

APEP may be terminated or modified without notice. APEP has a limited budget and all incentives are subject to availability of APEP funding. Applications are accepted on a first-come, first-served basis until available funds are exhausted or the end of APEP, whichever comes first. You may be eligible for other Public Purpose Program Charge efficiency programs. Log on to web site www.californiaenergyefficiency.com or web site www.pge.com for more information.

IMPORTANT! - Please read Sections I., II., and III. carefully! These Sections are referenced in the Agreement in Section IV. that you will sign. The Policies and Procedures manual for APEP governs the operations of APEP and is available on-line at www.pumpefficiency.org. You may also call APEP directly at (800) 845-6038.

I. Who is Eligible for APEP?

Owners or users of a PG&E non-residential electric or natural gas utility account that is primarily used for pumping water for production agriculture, landscape or turf irrigation, or municipal purposes, including potable and tertiary-treated (reclaimed) water but excluding pumps used for industrial processes, raw sewage, or secondary-treated sewage, and who are paying the Public Purpose Program Charge are eligible. Other factors may apply. Contact the APEP Program Office if there is a question as to eligibility.

II. What Projects are Eligible for APEP?

IMPORTANT! APEP requires a pump efficiency test be performed prior to and after the retrofit project.

They do not have to be done by APEP testers but they must be considered accurate by APEP. These tests cannot be more than three (3) years apart. APEP can accept applications for retrofit incentives after the project is completed but the application must be completed within two (2) years after the post-project test. This includes submittal of copies of the pre- and post-project pump tests, invoices, and the completed and signed application form.

If the pre-project pump test includes a calculated Overall Pumping Efficiency (OPE) and the OPE is below 6% or greater than 22% for an agricultural pump (including agricultural water/irrigation districts) then the project is ineligible. If the OPE is below 6% or greater than 24% for a municipal pump (including golf courses and other non-ag turf pumps) then the project is ineligible.

If the pre-project pump test does not include an OPE calculated using a measured pumping water level, then three tests performed within six years of the project start date must be submitted for the project to be eligible.

Even if your project is initially deemed eligible for an application you still may not receive an incentive depending on the results of the post-project test. Please refer to Section V. for an explanation of how the incentive is calculated.

Eligible projects must also satisfy the following:

- The pump must be operational at the time of retrofit.
- The specific work must include:
 - replacement of either or both of the pump bowl and impeller or,
 - machine work (e.g., re-facing, pit and hole filling) to return either or both of the pump bowl and impeller to original condition or,
 - trimming impellers to better match required operating conditions.
- Only one pump, with one discharge point, is eligible per application. (A well with a booster pump located at the well, and in series with the well, is an eligible pumping system for retrofit of either the well or the booster pump. However, call the APEP Main Office for details regarding these types of projects.)

- Only one incentive per individual pump will be paid in any one six-year period.

Examples of ineligible projects include:

- Projects involving multiple pumps, at different locations or on different meters.
- Projects involving retrofit or replacement of the engine or gear-drive only.
- Retrofits required in response to the need to change the operating condition or use of the pump, e.g., changing a well pump from low pressure flood irrigation to high pressure drip irrigation.
- Construction or finishing of a new water well.
- Pump impeller adjustments only.
- Well rehabilitation only, including cleaning, swaging, or patching.
- Projects intended only to reduce total dynamic head.
- Pump disassembly, inspection, and cleaning only (no machine work).
- Projects involving retrofit or repair of the tube, shaft, and/or column only.
- Bearing or spider replacement only.

Projects involving a change in nameplate horsepower are potentially eligible but the purpose of the horsepower change cannot be:

- To irrigate more area.
- To accommodate a change in distribution system design or operating requirements.
- To consolidate operations of two or more pumps (unless a directly-connected well/booster combination that are both electric-powered).
- To change the type of irrigation system (e.g., change from furrow irrigation to micro irrigation).
- To satisfy the conditions of a real estate sale, lease, or transfer.
- To satisfy the conditions of a water sale, lease, or transfer.

Work can be contracted or performed wholly or partially in-house if such capability exists. However, in-house labor rates and other costs cannot exceed the average of rates and costs charged by the two closest commercial pump service contractors.

Incentives from APEP cannot be combined with other utility grant, rebate, or service programs, or with grants, rebates or services offered by any other state or local government agency for the same measure.

If the project involves an agricultural pump of twenty-five horsepower or less it may be processed under the PG&E Standard Agricultural Rebate Program. Call the Agricultural Customer Service Center at (877) 311-3276 or APEP for more information.

If your project is ineligible for APEP, please note that PG&E has many other energy efficiency programs

including the Savings By Design program for new construction projects and the Customized program for installation of energy efficient equipment or systems in existing facilities. Go on line to www.pge.com or call your account representative for more information.

III. How to Obtain an Incentive

1. Complete and sign the Application Agreement in Section IV. Read all statements in the Agreement carefully, especially Clause 7. By signing this agreement you are certifying that all statements are true. **YOU ARE NOT COMMITTING TO COMPLETING THE RETROFIT BY SIGNING THIS APPLICATION!** It is only an agreement regarding the incentive that might be paid to you.
2. Read Section V. carefully. You must understand that even though your project is eligible you may still not receive any incentive.
3. Describe the project as much as possible using Section VI.
4. Make a copy of the entire Application and documentation and mail the following to the APEP Program Office:
 - The original signed, dated, and completed Sections IV. and VI. of the Application.
 - Copy of a pre-project pump efficiency test.

We will notify you of Application approval, rejection, or the need for more information.

When the accepted project is complete, paid for, and the post-retrofit pump test is completed, mail the following to the APEP Program Office:

- The completed, signed, and dated "Certificate of Project Completion".
- Copies of invoices marked PAID by the pump service company or copies of cancelled checks along with the invoices.
- Copy of the post-retrofit pump efficiency test.

IMPORTANT! The invoices must clearly state the eligible work that was performed, including replacement of parts, labor, and diagnostics. It must also identify the make, model, and number of stages of any new pump installed.

All material should be mailed to:

Advanced Pumping Efficiency Program
6014 N. Cedar
Fresno, CA 93710

If you have any questions or need help in completing this form, please contact the APEP Program Office at (800) 845-6038

For Program Use Only (v. 1819 - 1/2/2018)

PG&E Account Rep. LAN: _____ Local Office: _____

Received: _____ By: _____ How: _____ Postmark: _____ **Project #:** _____

Approved / Rejected / Withdrawn on: _____ By: _____ Final term: _____ Final Incentive: _____

IV. Agreement

IV.1 Applicant Information (required) -the Application must be in the name of the PG&E Customer of Record

PG&E Meter Number: _____ Account Number: _____ Service Agreement ID: _____

Name as it appears

on PG&E bill: _____ Contact Name: _____

Service Address as it

appears on PG&E bill: _____ Phone: _____

Fax: _____

Mailing Address: _____ E-Mail: _____

IV.2 Tax Liability Information for Applicant (required)

Tax Status: Individual/Sole Proprietor Corporation Partnership Exempt (tax exempt, non-profit)

Tax ID Number: EIN Federal Tax ID SSN _____

Tax Liability: Incentives are taxable if greater than \$600 and will be reported to the IRS unless you are exempt. PG&E will report the incentive as income to the Applicant on IRS form 1099 unless "Exempt" is marked as Tax Status. PG&E recommends that the Applicant consult a tax adviser concerning the taxability of incentives. PG&E is not responsible for any taxes that may be imposed due to incentive payments. Please note that a 1099 will be issued for the Applicant, regardless of who the Payee is, because the Applicant receives the benefits of the Incentives.

IV.3 Payment Release Authorization (complete this section only if the incentive payment is going to someone other than the PG&E Customer of Record)

I am authorizing the payment of my incentive to the party named below and I understand that I will not be receiving the incentive check from PG&E. I also understand that my release of the payment to such party does not exempt me from the incentive requirements outlined in this Application.

Authorized by PG&E Customer of Record (PRINT): _____

Signature of Authorized: _____ **Date:** _____

Incentive check should be made payable to:

Payee Name: _____

Mailing Address: _____


City: _____ **State:** _____ **Zip:** _____

Telephone: _____ **Fax:** _____ **E-Mail:** _____

IV.4 Agreement - read this carefully, especially clause 7!


The following is an Agreement between PACIFIC GAS and ELECTRIC COMPANY ("PG&E") and you, the "APPLICANT".



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


1. I have read and understand Sections I., II., and III. of this Application. I have read and understand the Policies and Procedures Manual of the Advanced Pumping Efficiency Program ("Program") operating in the PG&E territory, especially those parts pertaining to the application for, and calculation of, the incentive for a pump retrofit/replacement. I am an eligible Applicant, and this is an eligible pump retrofit/replacement project under the terms of the Program. I plan to purchase and install the equipment indicated in Section VI. of this Application. This will be for use at my place of business and not for resale.
2. If a tenant, Applicant is responsible for obtaining the property owner's permission to install the Measure(s) for which Applicant is applying for an Incentive payment. Applicant's signature on this Application indicates Applicant has obtained this permission.
3. The information I have supplied and included with this Application is true, correct, and complete.
4. If my application is deemed to be incomplete or incorrect by the Program, I agree to supply additional information or application corrections within three (3) months from the date of application. I understand that if I do not supply the information or corrections within this time period, the application shall be deemed expired and PG&E shall not have an obligation to the Applicant.
5. I agree that an approved Application shall expire and no incentive paid if; a) the Application is not completed, including submittal of the Certificate of Project Completion and all supporting documentation to the Program within two (2) years of the post-project pump test or b) the Program ends or c) California Public Utility Commission funds for the Program are unavailable or otherwise inaccessible to the Program and PG&E.
6. I agree that the maximum incentive that I can receive is the Potential Incentive calculated in Section V. of this Application as of the date of Application approval.
7.  ____ (your initials here) I certify that this pumping system, pump and power source was operational at the time of the retrofit/replacement. I further certify that the retrofit/replacement is solely to improve the operating efficiency of the pumping system and not in response to a need to change the intended operating condition of the pumping system, (e.g., from low pressure to high pressure operation or substantially increase water flow). Further, If this project involves a change in the nameplate motor horsepower I certify that it is not being done in order to irrigate more area, accommodate a change in distribution system design or operating requirements, consolidate operations of two or more pumps (unless a directly-connected well/booster combination that are both electric-powered), change the type of irrigation system (e.g., change from furrow irrigation to micro irrigation), satisfy the conditions of a real estate sale, lease, or transfer, or to satisfy the conditions of a water sale, lease, or transfer.
8. I have read and understand the terms and conditions on this Application and agree to abide by the rules, requirements, and terms set forth on this Application.
9. If this Agreement is terminated for any reason, PG&E shall not be liable to the Applicant for damages or compensation of any kind.
10. I will supply documentation establishing paid proof-of-purchase. This will be done by attaching copies of all invoices marked "PAID" by the repair company to the Certificate of Project Completion and submitting the Certificate to the Program. I have attached documentation, or will supply documentation, establishing electricity use and pump performance as required by the terms of the Program.
11. PG&E reserves the right to determine the Applicant's eligibility for the Incentive program.
12. NEITHER PG&E NOR THE CALIFORNIA STATE UNIVERSITY, FRESNO FOUNDATION ("FOUNDATION") MAKES ANY REPRESENTATION OR WARRANTY, NOR ASSUMES ANY LIABILITY WITH RESPECT TO QUALITY, SAFETY, PERFORMANCE, OR OTHER ASPECT OF ANY DESIGN, SYSTEM OR EQUIPMENT INSTALLED OR REPAIRED PURSUANT TO THIS AGREEMENT, AND THEY EXPRESSLY DISCLAIM ANY SUCH REPRESENTATION, WARRANTY OR LIABILITY. APPLICANT AGREES TO INDEMNIFY PG&E, THE TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY, THE FOUNDATION, CALIFORNIA STATE

UNIVERSITY, FRESNO, AND ANY OF SAID ENTITIES' AFFILIATES, SUBSIDIARIES, PARENT COMPANY, OFFICERS, DIRECTORS, AGENTS, AND EMPLOYEES AGAINST ALL LOSS, DAMAGE, EXPENSE, FEES, COSTS, AND LIABILITY ARISING FROM ANY DESIGN OF SYSTEM OR EQUIPMENT INSTALLED.

13. Both funding and the conditions of the Incentive are subject to the jurisdiction of the California Public Utilities Commission (CPUC) and shall be subject to such changes or modifications as the CPUC may, from time to time, direct in the exercise of its regulatory authority. If there are changes in the Incentive, PG&E will endeavor, but cannot guarantee, to provide a reasonable period of time before changes go into effect.
14. I understand that if the Program is modified in any way or terminated by order of any government entity, then this Agreement shall be revised or terminated consistent with that order.
15. PG&E may assign this Agreement, in whole or in part, or its rights and obligations hereunder, directly or indirectly, by operation of law or otherwise, without the Applicant's prior written consent, provided PG&E remains obligated for payments incurred prior to the assignment. The Applicant may not assign this Application, in whole or in part, or its rights and obligations hereunder, directly or indirectly, by operation of law or otherwise without the prior written consent of PG&E.
16. I understand the Incentive requires inspections and measurements of the improved performance of the efficiency project. Therefore, I agree to provide access to the Project Site for these purposes to PG&E and/or its agents or assigns and the CPUC and/or its agents or assigns.
17. Funding approved for this Program is limited and will be paid on a first-come, first-served basis to qualified applicants. Funds will only be reserved upon Applicant's acceptance into the Program. This Incentive offer is subject to the availability of authorized funds.
18. I agree to release PG&E, the Trustees of the California State University, the Foundation, California State University, Fresno, and all of said entities' affiliates, subsidiaries, parent company, officers, managers, directors, agents, and employees from all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise), which arise from or are in any way connected with any: (1) injury to or death of persons, including but not limited to employees of PG&E, Foundation, Applicant, or any third party; (2) injury to property or other interests of PG&E, Foundation, Applicant or any third party; (3) violation of local, state, or federal common law, statute, or regulation, including but not limited to environmental laws or regulations; (4) energy savings shortfall; so long as such injury, violation, or shortfall (as set forth in (1) - (4) above) arises from or is in any way connected with the Project, including any third party's performance of or failure to perform the Project, however caused, regardless of any strict liability or negligence of PG&E, Foundation, or said entities' officers, managers, or employees.
19. I certify that no other grant, incentive, rebate, or service from a utility, state, or local government-sponsored program has been, or will be, received in connection with the equipment purchased and installed under this contract. I authorize you to receive any and all information about me, or related to me, that you deem sufficient from any other energy efficiency program in order to verify this.
20. PG&E may suspend or terminate my Application, without cause, upon written notice to me.
21. I understand and agree the implementation of this Project shall comply with all applicable federal, state, and local laws, rules and regulations, and all applicable licenses and permits must be obtained. If permits or licenses are required, Applicant must provide certification of this before incentives or rebates are paid.

 **Applicant Name (PRINT):** _____

 **Applicant Signature:** _____  **Date:** _____

 **Start Date of Retrofit/Replacement:** _____

IV.5 On-Bill Financing

[] - Check here if this is an OBF project

TIF Number: _____ **PG&E Account Rep:** _____

IV.6 Application Assistance Incentive

Applicant - Please complete and sign this section only if you were materially helped in completing the application form by an individual or company:

I certify that I was materially helped in completing this application and an Application Assistance Incentive should be paid by APEP to the Assistor named below.

Applicant Name (print): _____

Applicant Signature: _____ **Date:** _____

Name of person/company providing assistance: _____

Mailing address of the

assistor: _____

City: _____ **State:** _____ **Zip:** _____ **Phone:** _____

Assistor's Tax Status: Individual/Sole Proprietor Corporation Partnership Exempt (tax exempt, non-profit)

Assistor's Tax ID Number: EIN Federal Tax ID SSN _____

Tax Liability: Incentives are taxable if greater than \$600 and will be reported to the IRS unless the Assistor is exempt. PG&E will report the incentive as income to the Assistor on IRS form 1099 unless "Exempt" is marked as Tax Status. PG&E recommends that the Assistor consult a tax adviser concerning the taxability of incentives. PG&E is not responsible for any taxes that may be imposed due to Assistance Incentives

V. How the Incentive is Calculated

The incentive is based on three factors, 1) The calculation of first year energy savings from the project, which are capped at 30% of annual energy savings, 2) the credited energy savings, either actual or the capped figure, times the savings payout rate - \$.08/kWh or \$1.00/therm, and 3) 50% of the allowable project costs, which is the maximum allowable incentive.

Energy savings generally will depend on the change in OPE shown on the pre- and post-project pump efficiency tests. However, if the total dynamic head of the post-project test is greater than +/-10% different than the pre-project test, or OPEs are not available on either or both of the pre- and post-project pump tests, then the change in therms/Acre-Foot pumped (therm/AF) will be used.

IMPORTANT! There are many reasons why a post-project therm/AF could be greater than the pre-project - most commonly because there is an increase in horsepower or because the pre-project test was taken in winter and the post-project test was taken in summer.

In the equations below thermAnnual is generally the average of the energy use in the three calendar years immediately preceding the year of the project. However, APEP at its full discretion, may use the therm usage in a different calendar year or years, or other twelve-month cycle if such usage is a more representative figure. In the event that the Applicant has cogeneration or self-generation facilities note that PG&E shall not pay Incentives for energy savings that exceed Applicant's annual energy usage from PG&E. Therm savings are limited to the Annual therms purchased from or delivered by the utility on the meter(s) serving the equipment to be installed, for which the utility collects the Public Purpose Programs (PPP) charge. The Annual therms include usage from Standby Service and less savings associated with pending energy efficiency applications.

There are two standard equations used for determining the first year energy savings, subject to the 30% cap:

Equation 1 - Equation 1 is used when OPE is the performance metric. First year energy savings are calculated as:

$$\text{Energy Savings} = \text{thermAnnual} \times (1 - (\text{OPEpre} / \text{OPEpost}))$$

Where:

therm_{annual} = 12 months of energy use as defined above

OPE_{pre} = overall pumping efficiency identified by the pre-project test

OPE_{post} = overall pumping efficiency identified by the post-project test

Equation 2 – Equation 2 is used when therm/AF is the performance metric. First year energy savings are calculated as:

$$\text{Energy Savings} = \text{thermAnnual} \times (1 - (\text{therm/AF}_{\text{post}} / \text{therm/AF}_{\text{pre}}))$$

Where:

therm_{annual} = 12 months of energy use as defined above

therm/AF_{pre} = therms required to pump an acre foot of water as identified by the pre-project test

therm/AF_{post} = therms required to pump an acre foot of water as identified by the post-project test

The dollar incentive, subject to the 50% of project cost cap, is then calculated as:

$$\text{Incentive} = \text{Energy Savings} \times \text{Rate}$$

Where:

Energy Savings = the first year energy savings as calculate by equation 1 or 2 above

Rate = payout rate for therms

VI. Please Describe the Project as Much as Possible

1. **Motor:** Horsepower _____ Speed (rpm) _____
2. **EPA Emission Rating (if known):** Tier 1 Tier 2 Tier 3
3. NA
4. NA
5. **Pump Type:** Well Vertical Turbine Horizontal Centrifugal Submersible Short-coupled Vertical/Slant Turbine
6. **Impeller Type:** Unknown Axial/Open Semi-Open Closed
7. **Pump Use:** Irrigation well Livestock well Ag Pressure boost Low-lift canal/ditch
 Tailwater return Tertiary water Municipal Well Municipal Pressure Boost
 Other: _____
8. **Current Overall Pumping Efficiency (OPE) (if known):** _____
9. **Estimated, or actual if known, post-retrofit Overall Pumping Efficiency (OPE):** _____
10. **Current therms per acre-foot pumped (therm/AF) :** _____
11. **Estimated, or actual, therms per acre-foot (therm/AF) after retrofit:** _____
12. **Retrofit Actions (check all that apply):**
 - Engine replacement (describe type, efficiency rating) _____
 - Engine tuneup Bearing/spider replacement
 - Packing replacement Impeller retrofit
 - Impeller Trimming Increasing the column pipe diameter
 - Impeller replacement (describe type, model) _____
 - Bowl/Volute retrofit
 - Bowl/Volute replacement (describe type, model) _____
 - Adding stage(s) (if a turbine) Removing stage(s)
 - Modification of the immediate pump discharge piping or valving to reduce pressure requirements.
 - Well clean/modification to reduce drawdown (describe fully on a separate sheet)
 - Other: _____
13. **Have you attended an APEP educational seminar?** YES NO – If “Yes”, approximately when? _____
14. **Did you retrofit this pump because of the results from a pump efficiency test?** YES NO
 - If “Yes”, was the test performed by:
 - A Participating Pump Test Company of the Program Another pump tester
 - If “Yes”, how long after the test did you retrofit the pump? _____ months
15. **Estimated completion date of retrofit:** _____
16. **Farm Type:** General row crops Vegetable Citrus Fruit Nuts Golf Irri.
 Dairy Nursery Cut Flowers Sod Vineyard Apiary Livestock
 Other: _____
17. **Total Acres Farmed:** 1-40 41-160 161-640 641-1280 1281-2560 2561-6400 6400+ Not Appl.
18. **Is there a flowmeter on this pumping system?** YES NO
 - If “Yes”, what type is the flowmeter? Std. Propeller Digital Propeller Velocity
 Paddle Wheel Acoustic Doppler Radar

Certificate of Project Completion (Keep this page until project is complete)

1. When the project is complete and the post-retrofit pump test done, fill out the Certificate of Project Completion below with the same information as on the Application. Refer to your Notice of Application Eligibility from APEP for the Application number.
2. Attach all invoices marked "PAID" by the repair company, or copies of cancelled checks along with the invoices, and a copy of the post-retrofit pump test results to this Certificate. **IMPORTANT!** The invoices must clearly show all eligible work that was performed including:
 - Retrofit/replacement of pump with before (if identifiable) and after pump model and number of stages.
 - Retrofit/replacement of other parts (bearings, column, shaft, etc.) and reason.
 - Labor on-site and in-shop.
3. Mail the invoices, copy of the post-retrofit pump test, and Certificate to the APEP Program Office at:

Advanced Pumping Efficiency Program
6014 N. Cedar
Fresno, CA 93710
4. Please call the Program at (800) 845-6038 if you have any questions as to what you need to do to receive your incentive.

CERTIFICATION OF PROJECT COMPLETION AND AUTHENTICITY AND ACCURACY OF SUBMITTED INVOICES

By signing below, the Applicant certifies:

1. That the pump retrofit/replacement project has been completed and the pump is operational.
2. That all invoices submitted for the Incentive are original invoices (or copies of original invoices) that are authentic and accurately reflect costs that were incurred by the Applicant solely in direct connection with the Applicant's submitted pump retrofit project.
3. That the improvement or installation complies with any applicable permitting requirements and, if a contractor performed the installation or improvement, that the contractor holds the appropriate license for the work performed.

Applicant Name (print): _____ Application Number: _____

Applicant Signature: _____ Application Date: _____

PG&E Meter Number: _____ Account Number: _____

Service Agreement ID: _____

Name appearing on PG&E bill: _____

Company Name: _____

Contact Person Name: _____ Phone: _____ Fax: _____

Start Date of Retrofit/Replacement: _____ Completion Date of Retrofit/Replacement: _____