



Helping California...

Electric-Powered Pump Retrofit Incentive Application

The Agricultural Pumping Efficiency Program (APEP) is funded through Pacific Gas & 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.

- Incentives under 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.

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. Refer to the APEP Policies and Procedures Manual or contact the APEP Program Office for full eligibility criteria.

What Projects are Eligible for APEP?

IMPORTANT! APEP requires that a pre-retrofit pump test performed after June 1, 2002 and within five years of the project start be submitted with the application and a post-retrofit pump test performed within 6 months after an application being approved be submitted. Projects started before January 1, 2006, are not eligible for the 2009-2012 APEP program.

Incentives are available ONLY for retrofit or replacement of either or both of the pump bowl and impeller. 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.

Note these important additional eligibility factors:

- Only one pumping system, with one discharge point, is eligible per application. Projects involving multiple pumping systems, at different locations or on different meters, are not eligible. (Note that a well, with a booster pump located at the well, and in series with the well, is an eligible pumping system.)
- Only one incentive per individual pump will be paid in any one six-year period.
- The pumping system must be operational. APEP will not provide an incentive for a broken or inoperable pumping system.
- No incentives will be provided if the project is for retrofit of an electric motor only, or installation of a variable frequency drive.
- Retrofits intended to change the operating condition or use of the pump are not eligible, e.g., changing a well pump from low pressure flood irrigation to high pressure drip irrigation.
- No incentive will be provided to construct or finish a new water well. However, ask about PG&E's Savings By Design Program for incentives for new construction projects.
- No incentives will be provided for pump impeller adjustments, well rehabilitation projects, projects intended to reduce air entrainment, or projects intended to reduce total dynamic head.

How to Obtain an Incentive

Natural gas accounts should contact the APEP Program Office for the correct application form. This form is for electric accounts only.

1. Complete and sign the Application Contract on PAGES 1a and 1b. Read all statements carefully. By signing this contract 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. Calculate the Potential Incentive using both Sections A and B on PAGE 2.
 3. Describe the project as much as possible using PAGE 3.
 4. Make a copy of the entire Application and documentation and mail the following to the APEP Program Office:
 - The original signed completed PAGES 1 – 3 of the Application.
 - Documentation of the last 12 months' energy use (or an estimate of the next 12 months' use as applicable).
 - Copy of a pre-project pump efficiency test performed after June 1, 2002 and within 5 years of the project start.
- We will notify you of Application approval, rejection, or the need for more information.
5. 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 "Certificate of Project Completion" fully completed.
 - Copies of invoices marked PAID by the pump service company or copies of cancelled checks along with invoices from the pump service company.
 - Copy of the post-retrofit pump efficiency test.

IMPORTANT! The invoices must clearly state all work that was performed, including replacement of parts, labor, and diagnostics.

All material should be mailed to:

**Agricultural 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.

The Agricultural Pumping Efficiency Program (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. Check APEP's Policies and Procedures Manual posted on the web site at www.pumpefficiency.org or call (800) 845-6038 for up-to-date information. 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.

Applicant Information:

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: _____
 Mailing Address, if different from installation address: _____ Fax: _____
 E-Mail: _____

Payment Release Authorization:

COMPLETE THIS SECTION ONLY IF 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: _____

Tax Liability Information for Payee (required):

Tax Status: Individual Corporation Non-Corporate Partnership Exempt (tax exempt, non-profit)

Tax ID Number: EIN Federal Tax ID SSN _____

Tax Liability: Incentives are taxable if greater than \$600 for business customers, and will be reported to the IRS unless you are exempt. PG&E will report the incentive as income to the Payee on IRS form 1099 unless "Corporation" or "Exempt" is marked as Tax Status. PG&E recommends that the Payee 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.

Agreement:

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:

- I have read and understand the Policies and Procedures Manual of the Agricultural 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 on Page 3 of this Application. This will be for use at my place of business and not for resale.
- The information I have supplied and included with this Application is true, correct, and complete.
- If my application is deemed to be incomplete or incorrect by the Program, I agree to supply additional information or application corrections within 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.
- I agree that an approved Application shall expire and no incentive paid if; a) the project is not completed, including submittal of the Certificate of Project Completion and all supporting documentation to the Program within six (6) months from the date of approval 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.
- I agree that the maximum incentive that I can receive is the approved Potential Incentive as of the date of Application approval.
- I certify that this pumping system, pump and power source was operational at the time of the retrofit/replacement. I further certify that this is solely to improve the operating efficiency of the pumping system and not for the purposes of substantially changing the intended operating condition of the pumping system, (e.g., from low pressure to high pressure operation).
- 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.
- If this Agreement is terminated for any reason, PG&E shall not be liable to the Applicant for damages or compensation of any kind.

- 9. 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.
- 10. PG&E reserves the right to determine eligibility for the Incentive program.
- 11. 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.
- 12. 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.
- 13. 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.
- 14. 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.
- 15. 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.
- 16. 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.
- 17. 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.
- 18. 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.
- 19. PG&E may suspend or terminate my Application, without cause, upon written notice to me.

Applicant Name (PRINT): _____

Applicant Signature: _____

Date: _____

Application Assistance Incentive:

Complete this section ONLY if you were materially helped in completing the application form by a pump test company or a pump service company providing the retrofit/replacement services for this project: I certify that I was materially helped in completing this application and an Application Assistance Incentive should be paid by APEP to:

Name: _____

Mailing Address: _____

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

Applicant Name (print): _____ Applicant Signature: _____ Date: _____

Tax Status: Individual Corporation Non-Corporate Partnership Exempt (tax exempt, non-profit)

Tax ID Number: EIN Federal Tax ID SSN _____

Tax Liability: Incentives are taxable if greater than \$600 for business customers, and will be reported to the IRS as income to you on form 1099 unless you indicate that your tax status is "Corporation" or "Exempt". Please consult your tax advisor for more information.

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 California Public Utilities Commission.

Los consumidores en California no estan obligados a comprar servicios completos o adicionales que no esten cubiertos bajo este programa. Este programa esta financiado por los usuarios de servicios públicos en California bajo la jurisdiccion de la Comisión de Servicios Públicos de California.

IMPORTANT NOTES!

1. APEP may use the change in kilowatt hours required to pump an acre-foot of water in conjunction with the number of acre-feet pumped as the basis for calculating the potential incentive if the OPE cannot be measured.
2. You are calculating a Potential Incentive below. Your Actual Incentive may differ from this! If you are using an estimate of the next 12 months' energy use as the basis for the incentive note that APEP uses a different method than Methods 1 and 2 outlined below. Please contact APEP staff if using the next 12 months' energy use as a basis for the incentive.
3. In consultation with you, APEP will perform all calculations if so desired.

Instructions:

1. Calculate your Potential Incentive based on energy savings in Section A. There is an example of how to do the calculations for Method 2 at the bottom of the Certificate of Project Completion page. Note the requirements for providing PG&E billing records or a documentable estimate of the next 12 months' energy use. If you cannot find the last 12 months' bills showing kilowatt hour usage, call your local PG&E account representative, visit www.pge.com, or call the PG&E Business Customer Service Center at 1-800-468-4743 to obtain a record. Note that you can choose to use either the past or the future 12 months' energy use but that the choice is permanent when the Application is approved.
2. Calculate your Potential Incentive based on 50% of the estimated project cost in Section B (it is not critical to know the project cost exactly if preparing the application before the project is completed).

Section A – Potential Incentive Calculated from Energy Savings

Annual kilowatt hour usage ("Annual kWh"): _____, using:

- Last 12 months' energy use - submit documentation of the previous 12 months' energy use. Log onto www.pge.com and your account for a record of billing history, or contact PG&E's Business Customer Service Center at 1-800-468-4743.
- Estimate of next 12 months' energy use – submit a reasonable and documentable estimate of the next 12 months' energy use (examples are seen at the bottom of the Certificate of Completion page). Your incentive will only be paid after the actual next 12 months' energy use is documented to APEP by you. That is, you are responsible for submitting copies of PG&E billing for the next 12 months when they become available. The incentive will be based on the actual energy use, not the estimate supplied with the application. APEP staff will contact you if using the next 12 months' energy use as the basis for your incentive.

METHOD 1 – Use this method if the pre-retrofit pump test indicates an Overall Pumping Efficiency less than or equal to 50% (40% if a submersible-type pump).

RATE = .08 for projects started before January 1, 2009 or applications signed before January 1, 2009, otherwise RATE = .09.

Potential Incentive = .25 X RATE X Annual kWh

Potential Incentive = .25 X _____ X _____ = \$ _____

METHOD 2 – Use this method if the pre-retrofit efficiency test indicates an Overall Pumping Efficiency (OPE) of more than 50% (40% if a submersible pump).

The following are requirements for submitted pump efficiency tests when using METHOD 2. Note that APEP reserves the right to audit the post-retrofit test using an independent pump test company:

- If a water well, the pump tests must be at similar discharge pressures (+/- 5 psi of the pre-retrofit discharge pressure) and with a similar standing water level (+/- 10% of the pre-retrofit level).
- If a booster pump, either a) the same pump and impeller trim (if applicable) must be in place before and after the retrofit or b) the tests are at the same operating condition (+/- 10% of pre-retrofit flow and total dynamic head).

RATE = .08 for projects started before January 1, 2009 or applications signed before January 1, 2009, otherwise RATE = .09.

Potential Incentive = RATE X (Annual kWh - (Annual kWh X Pre-Project OPE / Post-Project OPE))

Potential Incentive = _____ X (_____ - (_____ X _____ / _____)) = \$ _____

Section B – Potential Incentive Calculated from Project Cost

Enter the estimated, or actual, Project Cost: _____ Project Costs include all Time (labor or engineering) and Materials

Potential Incentive = .50 x Project Cost

Potential Incentive = .50 x _____ = _____

3. Your Potential Incentive is the **LOWER** of the Potential Incentives calculated in Section A and Section B – **Enter the lower number as your Potential Incentive here** \$ _____

Step 3 – Please Describe the Project as Much as Possible

1. **Motor:** Horsepower _____ Speed (rpm) _____ Voltage _____

2. **Motor Efficiency Rating** (if known): Standard High efficiency Premium high efficiency

3. **Has this motor been rewound?** Yes No
 - If "Yes", how many years ago? ____ how many times? _____

4. **Is this motor controlled by a variable frequency drive (also known as an Adjustable Speed Drive)?** Yes No

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 kilowatt-hours per acre-foot pumped (kWh/AF) :** _____

11. **Estimated, or actual, kilowatt-hours per acre-foot (kWh/AF) after retrofit:** _____

12. **Retrofit Actions (check all that apply):**
 Motor replacement (describe type, efficiency rating) _____
 Motor rewind 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)
 Installation of Variable Frequency Drive (also termed an Adjustable Speed Drive)
 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

Step 4 – Mail Application Package to the APEP Program Office

**Agricultural Pumping Efficiency Program
6014 N. Cedar
Fresno, CA 93710**

For Program Use Only (v. 03/01/2010)		PG&E Account Rep. LAN: _____	Local Office: _____
Received: _____	By: _____	How: _____	Postmark: _____ Project #: _____
Approved / Rejected / Withdrawn on: _____	By: _____	Final kWh: _____	Final Incentive: _____

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 Approval 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 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:

Agricultural 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

The Applicant hereby certifies that the pump retrofit/replacement project has been completed and the pump is operational.

The Applicant hereby certifies 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.

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: _____

Example of calculating a Potential Rebate using Method 2 of Section A on Page 2

Assume the following:

- Pre-retrofit Overall Pumping Efficiency is 52% ("Pre-OPE") and Post-retrofit Overall Pumping Efficiency is 63% ("Post-OPE")
- The pump used 75,000 kilowatt hours in the last 12 months ("Annual kWh")
- Project was started October 15, 2008 – thus the RATE = .08

Then:
$$\text{Potential Incentive} = \text{RATE} \times (\text{Annual kWh} - (\text{Annual kWh} \times \frac{\text{Pre-OPE}}{\text{Post-OPE}}))$$

$$\text{Potential Incentive} = .08 \times (75,000 - (75,000 \times \frac{52}{63})) = \$1,048$$

The calculations proceed in the following order:

1. Divide 52 / 63 (equals about .825)
2. Multiply the result of step 1. by 75,000 (equals 61,875)
3. Subtract the result of step 2. from 75,000 (equals 13,125)
4. Multiply the result of step 3. by .08 - Depending on how you rounded decimals, the Potential Incentive will be more or less \$1,048.

Examples of documentable estimates of the next 12 months' energy use:

1. This pump irrigates about 155 acres of mature almonds. Gross water application is about 3.2 acre-feet per acre per year. The pre-retrofit pump test indicates 200 kWh/AF – thus, 155 acres x 3.2 AF/acre x 200 kWh/AF = 99,200 kWh
2. This well pump is the main water supply for approximately 250 acres and will operate in the range of 2,200 hours/year. The pre-retrofit pump test indicates an input kW demand of 140 kW – thus, 2,200 hr x 140 kWh = 308,000 kWh