

# Energy Solutions for Agriculture and Irrigation



Energy is a key resource for farmers. Smart energy management can be a powerful tool in addressing stricter regulatory standards and rising energy costs. This fact sheet provides an overview of Pacific Gas and Electric Company's (PG&E) services to improve energy management for agriculture and irrigation.

The success of your operations depends on reliable energy and managing costs. Our team of energy specialists is available to assist you in taking advantage of PG&E's energy-efficiency and money-saving services. PG&E can help you realize a quicker return on your investments, increase the capacity of your existing systems and improve the reliability of California's electrical grid.

## Energy Management Services for Agriculture and Irrigation

SERVICE	DESCRIPTION	RESULT
Rate Plan	Agricultural rates are changing, so have a rate analysis done. Time of Use rates peak window will shift to 5-8 p.m. in 2021. Customers can optionally enroll in March 2020.	Can reduce your energy bill
Advanced Pumping Efficiency Program (APEP)	Have your pumps tested every two years to identify which pumps could operate more efficiently.	Can receive rebates to offset repair costs for inefficient pumps
New Construction	Speak to PG&E early in the design phase. PG&E can provide incentives and will help make your new facility or expansion more energy efficient.	Increases operational efficiency and reduces energy costs
Retrofits	Earn incentives for replacing equipment and systems to achieve greater energy efficiency.	Reduces energy costs
Retrocommissioning	Tune up your existing equipment to optimize efficiencies.	Maximizes existing infrastructure
Demand Response	Earn ongoing incentives for reducing electric load during times of high energy costs.	Reduce your energy costs and support the growth of renewable energy on the electric grid
Automated Demand Response	Receive technology incentives to install remote monitoring and control solution on irrigation pumps.	Offset cost of upgrading control to enhance automation and control of facility equipment
Zero Percent Financing	Receive zero-interest loans for energy-efficient retrofit projects, which are repaid through your monthly PG&E bills.	Provides financing for energy-efficiency projects
Self-generation	Earn rebates for the installation of battery storage, wind, fuel cell and other generation systems. Visit <a href="http://pge.com/sgip">pge.com/sgip</a> for more information and incentive rates.	Reduces energy costs and carbon footprint
Education and Training	Attend free PG&E classes. New classes are added every year.	Provides the latest technology and training

**1** Contact us to find out about your eligibility for PG&E programs

**2** Schedule a site visit with PG&E and ask about an energy audit

**3** Develop your energy management project with PG&E's wide range of resources and services

Talk with your PG&E account representative or call the **Agricultural Customer Service Center** at **1-877-311-FARM (3276)**.



## PG&E paid more than \$4,700,000 in energy-efficiency incentives to California agriculture and irrigation operations in 2018.

Our account representatives are available to help eligible customers receive incentives for smart energy management.



## Energy solutions for agriculture and irrigation

PG&E provides generous rebates for equipment upgrades, and there are many rebates available for business customers. Listed below are some of the most popular technologies available for agriculture and irrigation that can save money and energy. Your PG&E account representative or authorized PG&E partner can help you choose the best solutions for your business.

### Energy-efficiency rebates, incentives, and financing

SOLUTION	BENEFIT
<b>Drip Irrigation and Low-pressure Sprinkler Nozzles</b>	Crop yields can be improved by replacing flood and high-pressure systems with a micro-irrigation system of drip and low-pressure nozzles. When water use is optimized, less pumping is required. Other benefits include increased production and yields, increased quality and uniformity of crop production, accelerated crop maturity, increased ability to farm marginal land and substantial water savings.
<b>Variable Frequency Drives (VFDs)</b>	VFDs can reduce energy use by matching the flow of a pump to load requirements. If programmed correctly, these motors can also help reduce mechanical maintenance costs by ramping up slowly to meet system demand.
<b>Premium-efficiency Motors (PEMs)</b>	Qualified premium-efficiency motors offer significant energy savings as well as lower vibration and increased reliability, especially in equipment with long operating hours.
<b>Advanced Pumping Efficiency Program (APEP)</b>	Administered by California State University, Fresno's Center for Irrigation Technology, APEP subsidizes over 2,400 pump tests per year and provides cash incentives for pump retrofit projects. With their mobile simulation trailer they are able to bring a pump workshop to your community. Contact them at <b>1-800-845-6038</b> or via the web at <a href="http://pumpefficiency.org">pumpefficiency.org</a> .
<b>Fan/Blower VFD</b>	The use of a variable speed drive on a dust collection fan/blower will allow the system to modulate based on either air flow or static pressure requirements. By pulling only the necessary amount of air, it's possible to lower the cost of energy bills.

### Next steps

For more information on how PG&E can help your business manage energy consumption and reduce costs, contact your PG&E account representative, call the **PG&E Agricultural Customer Service Center** at **1-877-311-FARM (3276)** or visit [pge.com/ag](http://pge.com/ag).

### Demand response programs and incentives

SOLUTION	BENEFIT
<b>Demand Response</b>	Growers can earn ongoing bill credits or incentives by participating in a demand response program directly with PG&E or through a third party aggregator. In a demand response event, PG&E calls on participating growers to temporarily turn off irrigation pumps. Payment amounts and conditions vary by demand response program, allowing growers to select an option that best fits their operations.
<b>Automated Demand Response (ADR) Incentives</b>	ADR incentives offset the cost of remote monitoring and control solution on pumps, Growers gain the ability to remotely monitor on/off status of pumps and to remotely turn off pumps in routine irrigation operations. Participate in a DR program for at least three years and earn additional ongoing incentives. Contact the program at <b>1-855-866-2205</b> or visit the website at <a href="http://pge-adr.com">pge-adr.com</a> .