

Klickitat PUD Agricultural Energy Efficiency Program Participation Requirements and Instructions

Thank you for your interest in our Agricultural Energy Efficiency Program. We are pleased that we have the opportunity to offer this service to you through our association with Bonneville Power. Because of this collaboration of funds the information we collect from you is required to help determine your eligibility and may also be used to evaluate and audit data about energy use and the conservation program as a whole. With that, your information may be requested for certain site visits to evaluate the performance of the program and is to be kept available for three years. No personal information will be issued to the public.

The Agricultural Sector includes (1) by a farm or business of which the primary purpose is applying water for food production or vegetation growth (e.g., pumping and irrigation) and (2) by a ranch or aquaculture (aquafarming) business where the primary business is breeding or raising of domestic livestock, poultry, game animals, fish, oysters, etc. The storage and processing of farm products is not agricultural, and rather it is industrial with the exception of dairies and the storage of milk at the milking facility (note that homogenizing, dehydrating and bottling of milk and its derivatives are industrial). A facility may have a mix of both agricultural and industrial measures at the same location (e.g., winery operation with processing facility where the vineyard irrigation is considered agricultural and the grape processing facility is considered industrial).

PROGRAM REQUIREMENTS

All Agricultural measures must be installed according to KPUD, BPA, and manufacturer standards & specifications and are subject to inspection for the approval process. KPUD reserves the right to make changes to all programs and rebates are subject to the availability of funds through the Energy Efficiency Program.

NOTE TO CONTRACTORS: Please contact KPUD’s Energy Services to obtain specifications and requirements as each measure may require special forms and procedures to be followed. All contractors must be licensed and bonded in the state of Washington and are responsible for following all local codes and laws.

REBATE OPPORTUNITIES

Program Description	KPUD Rebate
Freeze Resistant Stock Water Tanks/Fountains	\$165.00 each
Irrigation System Hardware Upgrades	*\$0.70 - \$122.50
Variable Frequency Drives	Up to \$50.00/hp
Irrigation Pump Testing & Analysis	* \$40.00 - \$240.00
Low Elevation Sprinkler Application	\$100.00 for each system conversion
Low Energy Precision Agriculture	\$100.00 for each system conversion

* See associated rebate value chart

Freeze Resistant Stock Water Tank/Fountains: REBATE \$165.00 on qualifying units

Qualifying specifications: See detailed information sheet and rebate application for complete detail

- Must replace an electric resistance stock water tank heater or permanently disabled unit.

Post-condition Specifications:

- Must be new (not homemade)
- Enclosed, fully foam or dead air space insulated with the opening completely sealed in impact-resistance polyurethane
- Possess elliptical or flap closures that tip easily so animals can drink without resistance
- Sized in accordance with manufacture’s specifications for the type and number of animals for which it is used

- Water supply is hard-piped underground and stubbed into the insulated portion of the fountain
- Contains no electric heat
- Possess a minimum five-year manufactured defect warranty
- Pictures of before and after installation

Required Documentation:

- KPUD Freeze Resistant Waterer rebate application.
- Detailed Invoice showing installed costs, equipment information and date of installation.
- Proof of minimum 5 year defect warranty.
- Pictures of before and after installation.

Irrigation System Hardware Upgrades: REBATE from \$0.53 up to \$122.50 per unit w/limitations

Qualifying applications: Upgrades to new or existing irrigation systems for water management and be designed to improve application efficiency and the energy savings.

Entire wheel or hand lines measures will need to be retrofitted to qualify for rebates

Measure Description (more detailed descriptions available upon request)	Rebate Per Unit
1. New flow controlling-type nozzle for impact sprinklers	\$2.80 per nozzle*
2. (a) Rebuilt or new impact sprinklers (b) New nozzle for impact sprinkler replacing existing worn nozzle of same flow rate or less (c) New nozzle for center pivot and lateral movers	\$2.63/sprinkler* \$1.05 per nozzle* \$0.70 per nozzle
3. New rotating-type sprinklers that replace impact sprinklers.	\$2.80 per sprinkler*
4. New gasket for leaking pipe section and riser cap for wheel-lines, hand-lines or portable main-lines.	\$1.92 per gasket
5. (a) New low-pressure regulators. (b) New rotating-type sprinklers that replace low-pressure sprinklers.	\$3.50 per regulator* \$2.80 per sprinkler*
6. New multiple-configuration nozzles for low-pressure pivot sprinklers. (lateral movers included)	\$2.10 per sprinkler*
7. New multi-trajectory sprays that replace impact sprinklers.	\$2.80 per sprinkler*
8. New multi-trajectory sprays that replace low-pressure sprinklers.	\$0.70 per sprinkler*
9. New drains gaskets for wheel-lines, hand-lines or pivots. (lateral movers included)	\$0.70 per drain
10. New hubs for wheel-lines.	\$10.15 per hub
11. New gooseneck elbow for new drop tubes. (lateral movers included)	\$1.15 per goose neck
12. New drop tube for low-pressure pivot sprinklers (minimum three feet in length).	\$2.10 per drop tube
13. New center pivot base boot gasket.	\$122.50 per pivot
14. Cut and pipe press repair of leaking hand-lines, wheel lines and portable mainline.	\$7.00 per pipe section
15. Rebuild or replace leaking or malfunctioning leveler with new or rebuilt wheel line leveler	\$0.53 per leveler

* Rebate is limited to two units per sprinkled acre for solid set sprinklers.

Required Documentation:

- KPUD Agricultural Rebate Application.
- Equipment/contractor invoice is to include: manufacturer, model number, type or size of equipment or product installed/used, quantity, order/purchase date and cost.
- Pictures of before and after installation.
- Final On-site visit for documentation of final install including pictures.

Variable Frequency Drives in Ag Turbine Applications: REBATE up to \$50.00/hp

This measure applies to pumping operations that deliver, distribute or transport irrigation water with qualifying VFDs from 20 to 500 hp. Eligible installations are limited to TURBINE pumps with substantial variation in flow rates (20% variation or more) or discharge pressure requirements (10% variation or more).

All new VFD installations must meet the IEEE 519 standards.

Required Documentation:

- KPUD Agricultural Rebate Application and VFD Questionnaire.
- Approved KPUD Implementation Agreement.
- Complete the Agricultural Turbine Pump Applications VFD Calculator (completed by Utility or BPA Engineer)
- Equipment/contractor invoice is to include: manufacturer, model number, type or size of equipment or product installed/used, quantity, order/purchase date and cost.
- Final On-site visit for documentation of final install including pictures.

Irrigation Pump Testing & Analysis:

This measure is intended to help the irrigator determine irrigation system health and identify potential energy efficiency improvements. Ideally, the pump test will be performed on systems that are inefficient as determined by the Irrigation Pump Testing and System Analysis BPA Screening Tool. The results of the pump test could be used in developing the Custom Project proposal.

Test Type	KPUD Rebate
Simple System Evaluation	\$40.00
Simple System Irrigation Pump Test (e.g. open discharge)	\$80.00
Irrigation pump Test and System Analysis 400 acres or less	\$160.00
Irrigation Pump Test and System Analysis, over 400 acres	\$240.00
Irrigation Pump Test and System Analysis Complex Pumping System over 400 acres with multiple operating pumps	\$160.00 per main pump plus \$40.00 per booster pump

Requirements and Specifications:

- The irrigation pump must be electrically powered, 20 hp or greater and must not have been tested through BPA-sponsored pump testing services within the past five years.
- The irrigation pump must have been in operation for the two previous years.
- The irrigation pump test¹⁸ must be performed by an individual possessing pump testing knowledge and experience.¹⁹
- Customers and qualified vendors must use the Irrigation Pump Testing and System Analysis BPA Screening Tool (available from KPUD) to limit the amount of dry holes (i.e., pump tests that do not result in a BPA-approved custom project).
- The customer may choose from the following tests:
 - Simple System Evaluation: Measure pump discharge pressure and evaluate condition of the sprinkler nozzles.
 - Simple System Irrigation Pump Test (e.g. open discharge): Perform irrigation pump test.

- Irrigation Pump Test and System Analysis²⁰: Perform irrigation pump test and evaluate mainlines and critical sprinklers.
- KPUD will deliver printed recommendation reports to the end-user.

Required Documentation:

- KPUD Agricultural Rebate Application.
- Project Information Form
- Electronic or hard copies of the completed Irrigation Pump Testing and System Analysis BPA Screening Tool, irrigation pump test, and recommendation report.
- Equipment/contractor invoice is to include: manufacturer, model number, type or size of equipment or product installed/used, quantity order/purchase date and cost.

Low Elevation Sprinkler Application (LESA): REBATE \$100.00 for each system conversion

This measure is designed for center pivot and lateral move irrigation systems and places the sprinkler within three (3) feet of the soil surface.

LESA improves application efficiency, reduces direct evaporation from the sprinkler, and requires less pressure to operate; thus reducing water consumption. A LESA-equipped irrigation system can save water, save energy, reduce fertilizer requirements (and costs) and has the potential to improve crop yield.

Requirements and Specifications:

This measure is an additional payment for each center pivot and lateral move irrigation system that is converted to LESA. Sprinkler hardware measures such as goose necks, drop tubes, pressure regulators and sprinklers can also be claimed.

Required Documentation:

- KPUD Agricultural Rebate Application.
- Equipment/contractor invoice is to include: manufacturer, model number, type or size of equipment or product installed/used, quantity order/purchase date and cost.
- Completed Project Information Form for LEPA/LESA conversions.

Low Energy Precision Agriculture (LEPA): REBATE \$100.00 for each system conversion

This measure is for conversion of center pivot or lateral move systems to low-pressure sprinklers located at the mid-elevation (e.g., six (6) feet above the soil surface).

LEPA can use a variety of methods to have the water delivered directly onto the soil using bubblers, hoses and/or socks. Lowering the water delivery point directly onto the soil has been shown to reduce the water evaporation during the irrigation season, as well as reducing the pressure requirements of the irrigation system's overall pressure – and energy – required to efficiently water crops. LEPA may also provide more uniform water application, reduce incidence of disease, and may improve crop quality and yield.

Requirements and Specifications:

This measure is an additional payment for each center pivot and lateral move irrigation system that is converted to LEPA. Sprinkler hardware measures such as goose necks, drop tubes, pressure regulators and sprinklers can also be claimed.

Required Documentation:

- KPUD Agricultural Rebate Application.
- Equipment/contractor invoice is to include: manufacturer, model number, type or size of equipment or product installed/used, quantity order/purchase date and cost.
- Completed Project Information Form for LEPA/LESA conversions.

IMPLEMENTATION PROCESS

Some projects require a Pre-Audit/Pre-Approval with our Energy Services Specialist from KPUD. Call (509) 773-7622 to schedule an appointment.

1. Read the Program Participation Requirements and Instructions pages.
2. Complete applicable Agricultural Projects Rebate Application.

BID ACCEPTANCE AND INSTALLATION PROCEDURE

1. Customer is to secure bids from installer's. The contractor must be bonded and licensed in Washington and they must contact KPUD to be approved. It is suggested that you obtain at least two (2) bids and no bid be accepted unless the premises have been visited and physically inspected by the bidding contractor. It is easier to evaluate submitted bids if each bidder receives the same description of the measures to be installed.
2. Complete any needed contractor required paperwork.

INSPECTION AND COMPLETION PROCEDURE

1. After the installation of all materials, contact KPUD to schedule an inspection.
2. We request that business owner and/or occupant is present for the inspection.
3. If corrections are needed, KPUD will notify the contractor to clarify changes required comply with installation requirements.
4. If correction were required, another inspection will need to be scheduled.
5. Once all work is complete and approved by you, KPUD and the appropriate BPA Qualifying Agents; KPUD will then process the rebate request for approval on the next scheduled Commissioner's meeting or as funds are available.

NOTICES AND DISCLAIMERS

Kickbacks, rebates, non-authorized discounting of bids or other non-program benefits from the Contractors are prohibited, and may be subject to federal law.

All materials and installations must comply with current KPUD/BPA conservation specifications in order to be eligible for funding.

Contractors, participating in the program shall not be considered officers, agents or employees of BPA or KPUD; therefore, KPUD shall not be liable for the tortuous acts or omissions of the Contractors or other independent contractors.

All installations are subject to Quality Assurance oversight inspections by BPA approved Inspectors.

REBATE VALUES

Klickitat PUD reserves the right to make changes to all programs and rebates are subject to the availability of funds through the Energy Efficiency Program. Programs are evaluated and changes implemented by September 30th of every year.

See each measure section for rebate values and instructions.

Questions about this program can be directed to Klickitat PUD Energy Services

Klickitat PUD
1313 S Columbus Ave
Goldendale, WA 98620
(509) 773-7622 or (800) 548-8357
www.klickitatpud.com

Updated 06/06/2018

Agricultural Projects Rebate Application

Klickitat PUD
 1313 S. Columbus Ave.
 Goldendale, WA 98620

www.klickitatpud.com
 (509) 773-7622 or (800) 548-8357

Customer Name: _____ Phone #: _____ Date: _____
 Email Address: _____ Account # _____ Meter # _____
 Mailing Address: (for rebate check) _____
 Installation Address/Field # _____

BUSINESS INFORMATION: Area Identifying Name: _____
 Type of Ag use: Food production Crop? _____ Vegetation growth Crop? _____
 Vineyard Irrigation Dairy or Milk Storage Livestock Ranch Aquaculture (fish, oysters)
 Other _____
 Total acres _____ Hours of operation/Months irrigated: _____
 Current Irrigation type: Pivot Wheel Hand Other _____
 Projects Interested in? Freeze Resistant Waterer Irrigation Hardware VFD Pump Testing
 LEPA/LESA

More information may be needed depending on selected measure

Rebate payment is to be paid to the OWNER, unless stipulated by signing this authorization: I authorize KPUD to pay me rebate directly to my contractor as named below: _____
Customer Authorized Signature
 Name & Address of Contractor: _____

By signing below, I certify that the information supplied above is true and accurate to the best of my knowledge and belief and that I have read and comply with the Participation Requirements and Instructions. I also certify that I am the legal owner or legal representative of this above mentioned property.

 Customer Signature Date

This Section for KPUD use only			
Measure	Qty	Rate \$	Total \$
Measure	Qty	Rate \$	Total \$
Measure	Qty	Rate \$	Total \$
Measure	Qty	Rate \$	Total \$
Measure	Qty	Rate \$	Total \$
Meets rebate requirements? <input type="checkbox"/> Yes <input type="checkbox"/> No if so why _____			
Approved By: _____		Date _____	
Total Approved Rebate \$ _____			