

Agriculture Energy Efficiency Rebate Program



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

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This rebate program is supported through funding from the United States Department of Energy's (DOE) State Energy Program.

I. Funding Opportunity Description

According to a recent analysis¹ of energy consumption on Pennsylvania farms, the agriculture sector spends approximately \$87 million annually on energy costs, with dairy (milk vacuum pumping and cooling systems), poultry (ventilation systems), and LED lighting upgrades among the best opportunities for energy savings. Variable frequency drives (VFD's), for example, match vacuum pump operation to the need with no excess air thereby reducing pump operation. The VFD pumping can result in energy savings of about 50%². Scroll refrigeration compressors are another good example of an efficient technology. A scroll compressor is 15 to 20% more efficient than the traditional reciprocation compressor³. Agriculture involves many things that cannot be controlled, such as the cost of feed, seed, fertilizer, and transportation, agriculture commodity market prices, and severe weather events such as flooding and droughts that can have a huge, impact on production. However, farms can have some control over their energy costs by making their farm equipment more energy efficient.

If you are interested in an energy efficiency project but are not sure where to get started, it is recommended that you consider an energy efficiency assessment or audit for your business. More information can be found on our website: www.dep.pa.gov/agricultureenergy and the handout "Farming and Energy Use: Finding Hidden Opportunities for Energy Savings."

To help Pennsylvania farmers transition to energy efficient technologies, the Department of Environmental Protection (DEP) developed a pilot rebate program for farms in 2021. This is the third version of the rebate program that incorporates some changes to the technologies available for a rebate and the rebate cap for those technologies and eligible installation costs as we strive to improve the program. Under this program, farmers may apply for first come, first served rebates for light emitting diode (LED) lighting systems, energy efficient ventilation systems, and energy efficient dairy equipment as further defined in Table 1. **Applications will be accepted on a first come, first served basis until program funds are depleted but no later than December 31, 2023.**

¹ [*Energy Use, Energy Savings, and Energy Efficiency Policy Recommendations for Pennsylvania Agriculture*, 2020](#)

² [*Extension Farm Energy IQ Introduction* \(extension.org\)](#)

³ [*Milk Cooling – Wisconsin Energy Efficiency and Renewable Energy*](#) and [*Refrigeration Systems for Milk Cooling – Farm Energy* \(extension.org\)](#)

II. Program Eligibility

A. Eligible Applicants

Farmers who are commercial agricultural producers or farm operators who conduct normal farming operations in Pennsylvania. “Normal farming operations” are defined under Pennsylvania’s Right to Farm Law as farming operations that take place on not less than ten contiguous acres of land or if on less than ten acres, the activity must have an anticipated yearly gross income of at least \$10,000.

Agricultural producers who applied for and received the agricultural energy efficiency rebate during years one or two of the program (between September 20, 2021 and June 30, 2023) ARE eligible to apply again this year for new projects, for rebates up to \$7,500, but will be required to obtain an SAP Vendor ID number with the Commonwealth prior to payment.

B. Eligible Projects

- Energy efficient LED lighting, ventilation, efficient dairy equipment, and variable frequency drive (VFD) projects at normal farming operations located in Pennsylvania, as described in Table 1 below.

Special Eligibility Considerations for Lighting Projects:

- LED lighting must be either Design Lights Consortium (DLC) or Energy Star certified.
- The **DLC** qualified products lists are the largest verified lists of high performing and energy saving LED lighting solutions available. Qualified products undergo thorough vetting and review by DLC experts to ensure they meet rigorous energy and quality requirements.
- The **Energy Star** products have been independently certified and undergone extensive testing to assure that they will save energy and perform as promised. You’ll find the Energy Star logo on *screw-based* replacement bulbs.
- You can search for lighting at the below website, check your lighting specs and look for the DLC or Energy Star logos on your product packaging, or talk to your lighting vendor/supplier: <https://www.designlights.org/qpl>



Special Eligibility Considerations for Ventilation Projects:

Agricultural ventilation fans must have been tested by the Bio Environmental and Structural Systems Laboratory (www.bess.illinois.edu) or another Air Movement and Control Association (AMCA)-accredited laboratory and meet the minimum efficacy ratio (ER) for circulating fans, or ventilating efficiency ratio (VER) for exhaust fans in the following table. The higher the ER the more efficiently a circulation fan uses electricity. The higher the VER the more efficiently an exhaust fan uses electricity. High-volume, low-speed (HVLS) and other large diameter circulating fans not listed in the below table are eligible only if the equipment has been tested by an accredited third-party laboratory and verified to meet minimum efficiency standards under ANSI/AMCA Standard 230-15.

Circulation Fan Efficiency Requirements

Fan Diameter (inches)	Min thrust (cfm/Watt)
14-23	11.0
24-35	14.7
36-47	20.1

Exhaust Fan Efficiency Requirements

Fan diameter (inches)	Min (cfm/Watt at .10 in. Static Pressure)
14-23	10.5
24-35	12.7
36-47	17.0
48-52	20.3
53+	21.0

Please note that many electric utilities in Pennsylvania also offer rebates to farmers for energy efficiency upgrades. Your energy efficiency project may be eligible for this DEP Agriculture Energy Efficiency Rebate *and* a separate rebate from your electric utility. Contact your electric utility to find out if they offer rebates for energy efficiency projects. If they do, you will have to apply for the utility rebate separately.

Additionally, if you are considering energy efficient equipment purchases that fall outside the eligibility requirements of this rebate, your project may be eligible for the DEP Small Business Advantage Grant Program.

C. Ineligible Projects

- Projects for residential homes are not eligible; the project must be for equipment used in buildings that are part of the normal farming operations.
- New building construction projects are not eligible for this rebate, only upgrades that replace existing equipment, *unless* the project includes the addition of controls, well water pre-chillers, heat exchangers, or refrigeration heat recovery (RHR) to an existing operation.
- Projects that have received or applied for DEP's Small Business Advantage Grant (SBAG) funding are not eligible to also apply for this rebate for the same project, unless the SBAG application was either withdrawn or not selected for funding.
- Any equipment that is purchased prior to July 1, 2023, or after April 30, 2024, is not eligible for this rebate round.

III. Agriculture Energy Efficiency Rebate Information

A. Available Funding

Applications will be accepted, reviewed, and approved on a **first come, first served** basis. Applications must be submitted prior to installing the equipment. Funding is available at the rebate levels identified in Table 1. A total of approximately \$100,000 is available statewide for rebates under this program. These guidelines and associated rebate levels will remain in effect until rebate vouchers

have been issued totaling available funding, or until no later than December 31, 2023. DEP may modify or update the program guidelines at its discretion. Any future guideline modifications or updates will be posted at www.dep.pa.gov/agricultureenergy.

The Agriculture Energy Efficiency Rebate Program will provide:

- Rebates as a percentage of Total Project Cost up to a maximum rebate amount, whichever is less. (See Table 1)
- Rebates only for the project types listed in Table 1.
- Product specs are required to be submitted with the application.
- Installation costs up to \$2000 for qualified contractors/vendors may be included in the Total Project Cost for each technology category.
- Supplies costs associated with the equipment installation are eligible as part of the total project costs.
- Applicants may apply under each technology category, all on a single application or as separate applications, one per technology category.
- Only one rebate will be awarded for each technology category, per applicant.

DEP will not issue more than \$7,500 in rebate vouchers total to any one applicant during this application period (August 19, 2023 through December 31, 2023). \$7,500 is the maximum total rebate award under this program even if an applicant applies under more than one technology category.

Table 1. Rebate Amounts for Agriculture Energy Efficiency Rebates

Technology Category	Eligible Replacement Equipment	Maximum Rebate Amount per Applicant
Energy Efficient Lighting Systems	<ul style="list-style-type: none"> • LED lighting fixtures • LED bulbs • Lighting Controls (e.g. occupancy and motion sensors) 	Up to 50% of total lighting equipment purchase and installation cost \$7,500 max.
Energy Efficient Ventilation Systems	<ul style="list-style-type: none"> • Ventilation Fans (Select fans with a high efficiency (cfm/watt) rating) • Motors 	Up to 50% of total ventilation equipment purchase and installation cost \$7,500 max.
Energy Efficient Dairy & Refrigeration Equipment	<ul style="list-style-type: none"> • Pumps • Motors • Scroll or screw compressors • Well water pre-chillers including plate coolers/heat exchangers • Refrigeration Heat Recovery (RHR) units 	Up to 50% of total dairy or refrigeration equipment purchase and installation cost \$7,500 max.
Variable Frequency Drives (VFD's)	For the following applications: <ul style="list-style-type: none"> • Ventilation Systems • Milk-Pumping Equipment • Grain Drying Equipment • Water Pumps (ex. well water and irrigation) • Air Compressors 	Up to 50% of total variable frequency drive purchase and installation cost \$7,500 max.

B. How the Program Works

The Agriculture Energy Efficiency Rebate Program is offering funding as a rebate/voucher program.

1. Applications to the Agriculture Energy Efficiency Rebate Program **must be submitted prior to the start of equipment installation**. See Section IV, How to Apply, for more details.
2. Successful applicants will be issued a rebate voucher that secures the approved rebate amount for **120 days from the date of issuance**. The rebates are first-come, first-served, and the voucher is your assurance that funding has been set aside for your project.
3. Following project installation, the voucher recipient must redeem the voucher by providing all required documentation to DEP prior to the voucher expiration date to receive rebate funds. See Section V, How to Redeem a Rebate Voucher, for more details.
4. Please note: any costs incurred for equipment purchase or installation prior to July 1, 2023, or after April 30, 2024, will not be reimbursed.

5. If an applicant initiates project installation after applying but prior to DEP approval of a rebate voucher, no costs will be reimbursed if the application is not approved.

IV. How to Apply

- A. DEP will only accept rebate applications submitted through the Commonwealth's Electronic Single Application (ESA) website: www.esa.dced.state.pa.us/Login.aspx.

Please see the Agriculture Energy Efficiency Rebate Program Application Instructions Guide found at www.dep.pa.gov/agricultureenergy for detailed, step-by-step instructions for registering on the ESA website and applying for the rebate. Applications will be accepted until funding is depleted, or no later than **December 31, 2023**.

- B. All applications will require the following information to be submitted via the ESA website.

1. Applicant name, address, Employer Identification Number (EIN) or Social Security Number (SSN⁴) contact information
2. Project location
3. Agriculture operation/farm type
4. Whether or not a farm energy audit has been conducted
5. Electric distribution company name
6. Project type:
 - a. Lighting
 - b. Ventilation Equipment
 - c. Dairy & Refrigeration Equipment
 - d. Variable Frequency Drives
7. The number and types of equipment being replaced (only replacement of existing, inefficient equipment or addition of controls is eligible).
8. Estimated project costs including price quotes for the equipment (refer to Table 1 for eligible equipment) and, if applicable, installation costs (a maximum of \$2000 of installation costs can be added to the Total Project Cost) Price quotes will be uploaded as an attachment.
9. Product specifications will be uploaded as an attachment.
10. Affirmation of whether the applicant has submitted a [Schedule F](#) with their 2022 Federal tax returns (to be made available to DEP only upon request).

⁴ Applicants who operate their business under an EIN should apply using their EIN. A SSN should only be used if the applicant does not have an EIN.

Applications are public documents and subject to disclosure to the public. Any information included in the rebate application that the applicant wishes the commonwealth to consider as confidential must be uploaded to the ESA website as a separate file and must be clearly marked as confidential.

Questions regarding the registration, access, and use of the ESA website should be directed to the DCED Customer Service Center at 1-800-379-7448 between the hours of 8:30 AM to 5:00 PM EST Monday through Friday.

V. How to Redeem a Rebate Voucher

The rebate recipient must submit the information listed below following project completion to redeem the rebate voucher. Upon DEP approval of the final documentation, DEP will issue payment of the rebate to the voucher holder. DEP will not approve voucher redemption requests for unpaid invoices. Payment may take at least six to eight weeks after the request is submitted. The redemption request must be submitted by the voucher expiration date. Detailed submission instructions for redeeming the voucher will be included in the notification email provided to successful applicants. Required documentation:

- A. Invoice(s) that clearly shows the equipment purchased, quantity, purchase date, and equipment cost and any installation costs (if applicable). Proof of payment of all eligible equipment and installation costs. Proof of payment could include a copy of the canceled check, wire transfer confirmation, credit card statement or any other documentation showing that project costs for the invoices submitted have been paid by the rebate voucher holder.
- B. Before and after photos of the equipment (lighting, ventilation, dairy/refrigeration, or VFD equipment) that clearly show the equipment installation location. One photo of the equipment replaced and one photo of the newly installed equipment.
- C. Equipment specifications for all equipment purchased under the rebate program. This could include a manufacturer spec sheet, product brochure, or website content for the equipment.
- D. Payee contact and bank wire transfer information (if applicable, when the applicant has an SAP Vendor ID with the commonwealth). If you are a repeat rebate recipient for this or any other state grant program, or intend to do other business with the commonwealth that would result in receiving payment, the commonwealth requires that you create an SAP Vendor account and set up electronic payment/direct deposit. For one-time payments only, a check will be issued.

Applicants with vouchers which expire prior to project completion and submission of final documentation may reapply for a new voucher. DEP does not guarantee that a new voucher will be issued since funding is first come, first served.

Questions?

Inquiries related to the project requirements, application requirements, and other aspects of this rebate program should be directed to DEP's Energy Programs Office, by phone at 570-327-3783, or by e-mail to RA-EPAgEnergyProgram@pa.gov.