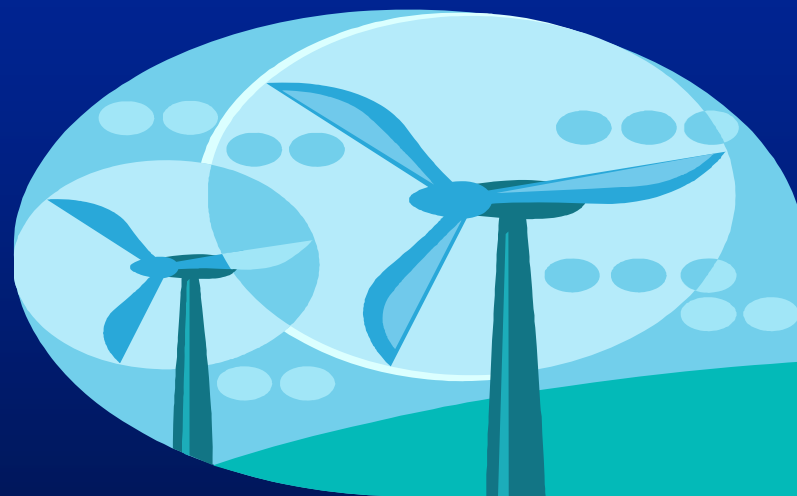


Winning USDA Grants for Energy Efficient Grain Dryers

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Section 9007 Rural Energy for America Program (REAP)



Grants & Loan Guarantees

for Farmers, Ranchers, and
Rural Small Businesses



Purpose



- | Purchase renewable energy systems
(A process that produces energy)
- | Improvements to a facility or process that **reduces** energy consumption



What Farmers and Ranchers are Eligible?



- | Applicant entity must be **51%** or more owned and operated by US Citizens or Permanent Residents
- | Must **directly engage** in production of agricultural products so that 50% or more of gross income comes from their operations
- | **Never been debarred** by the Government
- | *Certify you **have no known relationship or association** with any agency employee*

What are Eligible Costs?

- | Post application purchase & installation of equipment, except agricultural tillage equipment and vehicles.
- | Post application construction or project improvements, except residential.
- | Energy audits or assessments
- | Permit & License fees
- | Business plans
- | Technical reports
- | Professional service fees, except for application preparation
- | Feasibility studies

If applicable



Who are the ideal candidates?

- | A farmer wanting to increase profits
 - Who worries about rising input costs
 - Who worries about falling prices
- | A farmer with worn out equipment
 - Who has been limping along and now has cash from some good years.
 - Someone who has lost days due to repairs.

Example of an In-bin drying system

- | Today he has yields of 170 bushels an acre and farms 300 acres
 - Dries 50,000 bushels
 - Current system uses 2,500 btu/lb. at 10 pt
 - Plans on only drying 5 pt in a typical year
 - Two current bins have storage of 50,000 bushel and raised floors and 15hp fans
 - System uses \$14,000 to dry
$$\begin{aligned} & 2500\text{btu/lb.} * 7.421\text{lb (10 pt) } * 70\% \text{ energy} \\ & \quad * 50,000\text{bushel} / 91,500 \text{ btu/gal.} = 7,095 \text{ gallon} \\ & = \mathbf{\$14,000} \end{aligned}$$

Proposed system: 116 dryer

- | Would dry 50,000 bushel in 67 hours @ 5 pts
- | 24' leg
- | 8' auger extension
- | Will dry from 20 pt to 17 pt
- | Use \$5,500 propane for 5 pt reduction
 - Propane @ \$2 gallon
- | Cost \$45,000 installed



116 Return On Investment (ROI)

- | Initial ROI = $\$8,500 / \$45,000 = 19\%$
- | Simple payback = $45,000 / \$8,500 = 5.2 \text{ years}$
 - System costs \$45,000 before grant
 - Energy savings
 - \$14,000
 - \$5,500
 - \$8,500**

116 system Cash-Flow

- | First Year Cash flow +++ \$10,175
 - True cost = \$45,000- \$11,250 grant = **\$33,750**
 - Annual payment @ 7% for 7 years = **\$6,200**
 - Year 1 depreciation = $45,000/2*35\%$ = **\$7,875**
 - Cash flow
 - » \$8,500 energy savings
 - » + \$7,875 Tax savings
 - » – \$6,200 loan payment
 - » = **\$10,175 Positive Cash flow year one**

Frequently Asked Questions

Question:

- What equipment can be included in a grant, beyond just the dryer itself?

Answer:

- Any equipment that is permanently attached and is required for the entire system's operation can be included.

Frequently Asked Questions

- | Question:

- How much money is available?

- | Answer:

- Over \$100,000,000 will be awarded for either a grant, or a loan, or a combination of the two.
 - | 50% more than awarded last year.
 - We anticipate much greater competition.
 - | Less money will be spent on large projects than last year.
 - | They have set aside 20% for projects under \$80,000.

Frequently Asked Questions

- | Question:

- When do farmers get paid?

- | Answer:

- Payment is made upon completion
- Work can begin right after the application is made!

Frequently Asked Questions

Question:

- What happens if the energy savings do not occur?

Answer:

- The grant process is set up to give you *every opportunity* to achieve energy savings. However, since building usage and utility rates are subject to change there is no guarantee of savings. The farmer will be responsible for payments on the loan even if energy savings do not occur.
- The farmer **will not** have to return the grant money should energy savings not occur