



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 MISSOURI ENERGY CENTER
**ENERGIZE MISSOURI AGRICULTURE - COST SHARE GRANTS FOR ENERGY
 SAVING PROJECTS APPLICATION**



Mail Completed Form to: Missouri Department of Natural Resources, Energy Center
 Attn: Ag Cost-Share, P.O. Box 176, Jefferson City, MO 65102-0176

PERSONAL INFORMATION

NAME		
IF CORPORATION, NAME TWO MAJOR STOCKHOLDER 1.	IF CORPORATION, NAME TWO MAJOR STOCKHOLDER 2.	
ADDRESS		
CITY	COUNTY	ZIP CODE
TELEPHONE NO. WITH AREA CODE	E-MAIL ADDRESS	

APPROPRIATE DISTRICT NUMBERS BASED ON THE APPLICANT'S LOCATION

U.S. CONGRESSIONAL DISTRICT	MO SENATORIAL DISTRICT	MO LEGISLATIVE DISTRICT
-----------------------------	------------------------	-------------------------

SOLAR POWERED WATER PUMPS

Eligible projects include multiple pumps/systems. Eligible equipment includes pumps, controllers, PV panels, water pipe, batteries and water storage tanks. Labor is not included. Panel watts are the total rated panel watts for all panels.

Pumps	Tanks	Pipe	Panels
NO.	NO.	NO. (IN FT.)	NO.
COST	COST	COST	WATTS
			COST

ADDITIONAL INFORMATION

SOLAR POWERED FENCES

Eligible projects include multiple solar-powered chargers for electric fences. Labor and fence material is not included. Panel watts are the total rated panel watts for all fences.

NO.	WATTS	COST
-----	-------	------

ADDITIONAL INFORMATION

INSULATED WATERERS

Eligible projects include multiple insulated tanks and frost-free waterers for cows, sheep, goats and horses.

Cows	Sheep	Goats	Horses
NO. OF ANIMALS	NO. OF ANIMALS	NO. OF ANIMALS	NO. OF ANIMALS
NO. OF WATERERS	NO. OF WATERERS	NO. OF WATERERS	NO. OF WATERERS
COST	COST	COST	COST

ADDITIONAL INFORMATION

GLOBAL POSITIONING SYSTEM (GPS)

Eligible projects include receiver and auto-track systems for tractors, combines and sprayers. Projects do not include handheld systems for recreation or automobiles. Operation is the type of field activity in which you would use the GPS such as disking, planting, harvesting, land leveling, narrowing, bedding, spraying and fertilizer application. List all that apply.

GLOBAL POSITIONING SYSTEM COST
\$

CROP	OPERATION	CROP	OPERATION	CROP	OPERATION	CROP	OPERATION
	<input type="checkbox"/> Disking <input type="checkbox"/> Planting <input type="checkbox"/> Harvesting <input type="checkbox"/> Land Leveling		<input type="checkbox"/> Disking <input type="checkbox"/> Planting <input type="checkbox"/> Harvesting <input type="checkbox"/> Land Leveling		<input type="checkbox"/> Disking <input type="checkbox"/> Planting <input type="checkbox"/> Harvesting <input type="checkbox"/> Land Leveling		<input type="checkbox"/> Disking <input type="checkbox"/> Planting <input type="checkbox"/> Harvesting <input type="checkbox"/> Land Leveling
ACRES	<input type="checkbox"/> Harrowing <input type="checkbox"/> Bedding <input type="checkbox"/> Spraying <input type="checkbox"/> Fertilizer	ACRES	<input type="checkbox"/> Harrowing <input type="checkbox"/> Bedding <input type="checkbox"/> Spraying <input type="checkbox"/> Fertilizer	ACRES	<input type="checkbox"/> Harrowing <input type="checkbox"/> Bedding <input type="checkbox"/> Spraying <input type="checkbox"/> Fertilizer	ACRES	<input type="checkbox"/> Harrowing <input type="checkbox"/> Bedding <input type="checkbox"/> Spraying <input type="checkbox"/> Fertilizer

ADDITIONAL INFORMATION

IRRIGATION IMPROVEMENTS

Eligible system improvements include multiple flow meters, a controller for pulse irrigation, multiple solenoid valves for each zone, electrical wire from the valves to the controller, multiple drip emitters for drip irrigation, multiple irrigation nozzles and PVC pipe to replace aluminum pipe. Tier III or Tier IV diesel engines are also eligible. Power cost is the cost per unit, i.e. \$/KWH or \$1 gallon.

SYSTEM I

SYSTEM TYPE <input type="checkbox"/> Flood <input type="checkbox"/> Furrow <input type="checkbox"/> Sprinkler <input type="checkbox"/> Micro Irrigation				POWER COST PER UNIT FUEL (\$ PER KILOWATT, \$ PER GALLON)			
POWER SOURCE <input type="checkbox"/> Electric <input type="checkbox"/> Diesel <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane <input type="checkbox"/> Gasoline							
WELL LIFT			SYSTEM PRESSURE				
CROP		CROP		CROP			
ACRES		ACRES		ACRES			
Flow Meter		Irrigation Nozzle Replacement		Pulse Irrigator			
NO.	COST	NO.	COST	COST	COST		
Pipe Upgrade		Irrigation Improvements: Tier III or Tier IV Engine					
FEET OF PIPE	COST	NO.	HORSEPOWER	HOURS USED PER YEAR	COST		

SYSTEM II

SYSTEM TYPE <input type="checkbox"/> Flood <input type="checkbox"/> Furrow <input type="checkbox"/> Sprinkler <input type="checkbox"/> Micro Irrigation	POWER COST PER UNIT FUEL (\$ PER KILOWATT, \$ PER GALLON)
POWER SOURCE <input type="checkbox"/> Electric <input type="checkbox"/> Diesel <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane <input type="checkbox"/> Gasoline	

WELL LIFT	SYSTEM PRESSURE
-----------	-----------------

CROP	CROP	CROP	CROP
ACRES	ACRES	ACRES	ACRES

Flow Meter	Irrigation Nozzle Replacement	Pulse Irrigator	Drip Irrigation System
NO.	COST	NO.	COST

Pipe Upgrade	Irrigation Improvements: Tier III or Tier IV Engine				
FEET OF PIPE	COST	NO.	HORSEPOWER	HOURS USED PER YEAR	COST

ADDITIONAL INFORMATION

DAIRY FACILITY IMPROVEMENT

Eligible Systems include variable frequency/variable speed drives for vacuum pumps, water-cooled plate coolers for milk pre-cooling, heat reclaimers for air compressors, scroll air compressors and High Volume Low Speed, or HVLS cooling fans.

Dairy Facility Improvements

NO. MATURE COWS (LACTATING PLUS DRY)	ANNUAL MILK PRODUCTION (TOTAL POUNDS)	YEAR FACILITY WAS CONSTRUCTED
--------------------------------------	---------------------------------------	-------------------------------

SELECT YOUR CURRENT MILK PRE-COOLING SYSTEM <input type="checkbox"/> Water-cooled plate cooler <input type="checkbox"/> VFD with plate cooler <input type="checkbox"/> None	DO YOU USE A SCROLL AIR COMPRESSOR? <input type="checkbox"/> Yes <input type="checkbox"/> No WATER HEATING FUEL TYPE <input type="checkbox"/> Electricity <input type="checkbox"/> Propane <input type="checkbox"/> Fuel oil <input type="checkbox"/> Natural gas
--	--

YOUR HEATING FUEL UNIT COST (\$ PER GALLON, \$ PER KWH, \$ PER MCF)

DO YOU PRE-HEAT YOUR WATER USING RECOVERED COMPRESSOR HEAT? <input type="checkbox"/> Yes <input type="checkbox"/> No	DO YOU USE A VARIABLE FREQUENCY/VARIABLE SPEED DRIVE ON YOUR VACUUM PUMP? <input type="checkbox"/> Yes <input type="checkbox"/> No
---	---

Proposed Improvements (Matrix)

VFD / VSD Drive	Plate Cooler	Heat Recovery	Scroll Compressor	HVLS Fans
NO.	NO.	NO.	NO.	NO.
COST	COST	COST	COST	COST

ADDITIONAL INFORMATION

SWINE FACILITY IMPROVEMENTS

Eligible systems include High Volume Low Speed (HVLS) cooling fans.

HVLS Fans

NO.	HOURS USED PER YEAR	YEAR FACILITY CONSTRUCTED
-----	---------------------	---------------------------

COST

ADDITIONAL INFORMATION

POULTRY FACILITY IMPROVEMENTS

Eligible systems include High Volume Low Speed (HVLS) cooling fans.

HVLS Fans

NO.	HOURS USED PER YEAR	YEAR FACILITY CONSTRUCTED
-----	---------------------	---------------------------

COST

ADDITIONAL INFORMATION

GRAIN DRYER UPGRADE

Eligible systems include both burner and fan retrofit for existing systems or total new systems. Provide actual or estimates of the average moisture of the grain entering and exiting the system.

CURRENT TYPE OF DRYING SYSTEM <input type="checkbox"/> Low-temperature bin dryer <input type="checkbox"/> Natural air bin dryer <input type="checkbox"/> High temperature batch bin dryer <input type="checkbox"/> Mixed flow dryer <input type="checkbox"/> Combo Hi/Low temp drying <input type="checkbox"/> Cross flow batch dryer <input type="checkbox"/> Continuous flow in-bin dryer <input type="checkbox"/> Continuous cross flower dryer <input type="checkbox"/> Roof dryer	IS A STIRRING DEVICE BEING USED? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	WHAT TYPE OF GAS IS USED FOR DRYING? <input type="checkbox"/> Propane <input type="checkbox"/> Natural gas	
	FUEL COST PER UNIT(\$ PER GALLON, \$ PER THERM)	
	AVERAGE PERCENT MOISTURE OF GRAIN ENTERING THE DRYER	
	AVERAGE PERCENT MOISTURE OF CORN EXITING THE DRYER	
	AVERAGE BUSHELS OF GRAIN DRIED PER YEAR	
NEW DRYER TYPE <input type="checkbox"/> Low-temperature bin dryer <input type="checkbox"/> Natural air bin dryer <input type="checkbox"/> High temperature batch bin dryer <input type="checkbox"/> Mixed flow dryer <input type="checkbox"/> Combo Hi/Low temp drying <input type="checkbox"/> Cross flow batch dryer <input type="checkbox"/> Continuous flow in-bin dryer <input type="checkbox"/> Continuous cross flower dryer <input type="checkbox"/> Roof dryer	IS NEW SYSTEM MOBILE OR FIXED <input type="checkbox"/> Yes <input type="checkbox"/> No	
	Retrofit of Existing System	
	GRAIN DRYER UPGRADE: RETROFIT OF EXISTING SYSTEM (CHECK ALL THAT APPLY) <input type="checkbox"/> Fans <input type="checkbox"/> Burners	
	COST	

WHOLE FACILITY LIGHTING UPGRADES

Eligible projects include retrofit of entire lighting systems in an existing building. This includes fixtures, bulbs, timers and sensors. Purchase of replacement/individual light bulbs is not eligible.

TYPE OF FACILITY (DAIRY BARN, MACHINE SHED, ETC.)	YEAR FACILITY CONSTRUCTED	FACILITY FLOOR AREA
CURRENT FACILITY LIGHTING WATTS	HOURS OPERATION PER YEAR	NEW LIGHTING WATTS

New Equipment Amounts

FIXTURES	BULBS	TIMERS	OCCUPANCY SENSORS
----------	-------	--------	-------------------

COST

ADDITIONAL INFORMATION

CONSERVATION TILLAGE EQUIPMENT

Indicate the type of conservation tillage you will employ and the number of acres by type and crop. Eligible type of equipment includes combine straw spreaders, planters, bedders, ridge till cultivators, coulter, tool bars and drills. Tractors and combines are not included.

Number of Acres by Type of Conservation Tillage

Corn	Cotton	Rice	Soybeans	Wheat	Oats	Sorghum
MULCH-TILL						
RIDGE-TILL						
NO-TILL						

TYPE OF EQUIPMENT TO BE PURCHASED (MAKE, MODEL, SIZE)	COST
---	------

ADDITIONAL INFORMATION

HIGH EFFICIENCY ELECTRIC MOTORS

Eligible equipment includes replacement High Efficiency and NEMA Premium electric motors. These can be used for irrigation pumps, grain stirrers, milk pumps, etc.

YEAR OLD MOTOR WAS INSTALLED	NO. OF HOURS USED PER YEAR	NO. OF NEW MOTORS	HP OF NEW MOTOR	COST
------------------------------	----------------------------	-------------------	-----------------	------

ADDITIONAL INFORMATION

BIOMASS FURNACES/BOILERS FOR OTHER THAN POULTRY HOUSES

Poultry house biomass furnaces are covered under a separate Energy Center program. Information about the poultry house biomass furnaces is available from the Energy Center at 573-751-2254.

Eligible systems include furnaces that burn wood, wood pellets, corn and large bales of hay/straw. Eligible systems include both air and water heat systems. Equipment/type of facility can include water heater for dairy barns, heaters for barns other than poultry and machine sheds.

TYPE OF EQUIPMENT/FACILITY BEING HEATED	YEAR FACILITY CONSTRUCTION	BTU RATING OF HEATING UNIT
TYPE OF FUEL <input type="checkbox"/> Electricity <input type="checkbox"/> Propane <input type="checkbox"/> Fuel oil <input type="checkbox"/> Natural gas	HOURS USED PER YEAR	
	COST	

ADDITIONAL INFORMATION

OTHER

Provide a short narrative describing your proposed project. Include cost, type of energy used, estimated energy savings per year, documentation/calculations for estimate, payback in years and type of equipment you intend to purchase. Labor cost is not eligible.