

Dairy On-Farm Agricultural Energy Audit Screening Form

The purpose of this form is to determine if there are potential energy conservation projects that could be further developed and analyzed from performing an on-farm agricultural energy audit at a dairy farm. Questions include high-level information about the dairy farm's metered energy consumption, energy-consuming equipment as well as farm characteristics and operation. This form should be completed by the on-site person most knowledgeable about the energy-using equipment at the dairy farm or by an experienced agricultural energy auditor. ***The completed form must be returned to the dairy farmer's electric service utility for review and processing.*** If a dairy on-farm ag energy audit is warranted, additional information may be requested from the participating dairy and their chosen experienced agricultural energy auditor.

If any information does not apply, please enter N/A. If a section does not apply, skip to the section that applies.

Electric utility customer information

Dairy Business Name

Dairy Contact

Farm Site Information

Street Address

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City

State

Zip Code

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Best Phone Number

Email Address

Is the farm owned or leased? ☐ Owned ☐ Leased

Electric Utility Name

Electric Utility Account Number(s)

Total Annual Energy Use (kWh/yr) _____

Milk Parlor Building

Total Head Count of Milkers	Number of times milked per day	Milk pounds per day

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs or kW)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Chiller/Refrigeration System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

☐ Air-cooled ☐ Ground source water-cooled ☐ Domestic source water-cooled

Plate Heat Exchanger Pre-cooler ☐ Yes ☐ No

Waste Heat Recovery from chiller to hot water system ☐ Yes to ____°F ☐ No

Sanitization Hot Water System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs or kW)	Make	Model	Age(yrs.)	Efficiency

☐ Single-pass ☐ Multi-Pass

Source of incoming water ☐ Well ☐ Streetside Utility

Incoming water temp (°F)	Outgoing hot water temp (°F)

Waste heat recovery pre-heater ☐ Yes ☐ No

Hot water recirculation loop ☐ Yes ☐ No

Hot water tank size (gallons)

Milking and milk transfer system

Milking vacuum pumps

Size	Make	Model	Age (yrs.)

Does the vacuum pump system use VFDs? ☐ Yes ☐ No

Milk transfer pumps

Size	Make	Model	Age (yrs.)

Does the milk transfer system use VFD's? ☐ Yes ☐ No

Compressed Air System

Size	Make	Model	Age (yrs.)

Does the compressed air system use VFDs? ☐ Yes ☐ No

Lighting Systems

☐ Incandescent/HPS/HID ☐ Fluorescent ☐ LED

Other systems

List any other energy consuming systems not identified above

Free Stall Barn ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs or kW)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Hot Water System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs or kW)	Make	Model	Age(yrs.)	Efficiency

Lighting System

☐ Incandescent ☐ Fluorescent ☐ LED

Other systems

List any other energy consuming systems not identified above

Heifer Barn ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Hot Water System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs or kW)	Make	Model	Age(yrs.)	Efficiency

Lighting System

☐ Incandescent ☐ Fluorescent ☐ LED

Other systems

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List any other energy consuming systems not identified above

Group Calf Housing ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs or kW)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Hot Water System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)

Lighting System

☐ Incandescent ☐ Fluorescent ☐ LED

Other systems

List any other energy consuming systems not identified above

Farm Shop ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled

☐ Temp Controlled

☐ ECM's

☐ VFD Controlled

Hot Water System

☐ Propane

☐ Natural Gas

☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Lighting System

☐ Incandescent

☐ Fluorescent

☐ LED

Other systems

List any other energy consuming systems not identified above

Machinery Shed ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane

☐ Natural Gas

☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Hot Water System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Lighting System

☐ Incandescent ☐ Fluorescent ☐ LED

Other systems

List any other energy consuming systems not identified above

Commodity Barn ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Hot Water System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Lighting System

☐ Incandescent ☐ Fluorescent ☐ LED

Other systems

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List any other energy consuming systems not identified above

Office/Breakroom Building ☐ Not observed ☐ Applicable ☐ Not Applicable

Area (sq. ft.)	Meter #	Annual Energy Use (kWh/yr)

Heating System

☐ Propane ☐ Natural Gas ☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Cooling System

Size(BTUs or tons)	Make	Model	Age(yrs.)	Efficiency

Ventilation System

No. of fans	Fan Motor Size (hp)

☐ Humidity Controlled ☐ Temp Controlled ☐ ECM's ☐ VFD Controlled

Hot Water System

☐ Propane

☐ Natural Gas

☐ Electric

Size(BTUs)	Make	Model	Age(yrs.)	Efficiency

Lighting System

☐ Incandescent

☐ Fluorescent

☐ LED

Other systems

List any other energy consuming systems not identified above

Crop Irrigation ☐ Not observed ☐ Applicable ☐ Not Applicable

Pumps

Size (hp)	Pump Type (cent/well)	Make	Model	Age (yrs.)	Hrs/day

Irrigation System Type

Lagoon Irrigation ☐ Not observed ☐ Applicable ☐ Not Applicable

Pumps

Size (hp)	Pump type	Make	Model	Age (yrs.)	Hrs/day

Miscellaneous

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Potential Energy Conservation Project Details

List and briefly describe any areas of interest for potential equipment improvement projects at the site (e.g. chiller/refrigeration system, hot water system, HVAC, well or irrigation pumps, lighting).

Was an on-farm ag energy audit performed before? ☐ Yes ☐ No

If yes, what year was the audit performed?

Have you contacted a USDA NRCS Technical Service Provider or an Ag Energy Auditor about completing an on-farm ag energy audit? ☐ Yes ☐ No If "yes," complete the information below:

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Energy Auditor Name

TSP, P.E., CEM, or Other

Years of Experience

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Energy Auditor Business Address

Phone number

Email address

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(A) Estimate Energy Audit Cost

(B) Outside funding available for energy audit

Net Cost (A-B)