

May 2005

Producer:

Date:

Watershed:

Farm Identification:

This guidance sheet is to be used with the Conservation Security Program (CSP) where a comprehensive energy audit is being performed. It contains the deliverables required to receive an energy audit enhancement payment and other important program requirements and definitions. A Comprehensive Energy Audit is performed to earn an energy audit enhancement payment under CSP. It provides a baseline from which an additional CSP enhancement payment for Energy Use Reduction is calculated. The Energy Use Reduction enhancement payment may be earned by implementing all or part of the recommendations in the Comprehensive Energy Audit. A baseline self-assessment may be used in lieu of the Comprehensive Energy Audit to calculate on-farm energy use reduction; however, the baseline self-assessment will not qualify for an Energy Audit enhancement payment.

A **Comprehensive Energy Audit** is a written report prepared by an independent, qualified entity or individual that documents the following:

- current hourly, monthly and/or seasonal energy usage, as appropriate
- recommended improvements and their costs,
- expected monthly, seasonal and/or annual energy savings from these improvements, as appropriate, and
- an estimated payback, including dollars saved (based on approximate energy costs) and period in years and life cycle costs.

Deliverable: To earn CSP enhancement payment for Energy Audit the applicant must have completed or agree to complete a Comprehensive Energy Audit. The Comprehensive Energy Audit is used to calculate on-farm energy use reduction.

Record Keeping: If the producer chooses to implement recommendations from the Comprehensive Energy Audit to earn an enhancement payment for Energy Use Reduction, it is the responsibility of the producer, or his agents to maintain records which document energy use. These records include:

- Utility and/or fuel purchase bills
- Quantities and sources of energy applied;
- Dates (month and year) documenting energy use.
- Methods of energy use
- The results of reviews including the identification of the person completing the review and any recommendations that resulted from the review.
- Energy Audit and energy rates.

- Actions taken to improve energy efficiency
- Removal or addition of energy use components to the farm or ranch.

Key Definitions:

- Energy: Fuels (purchased propane, diesel and natural gas) and electricity used to perform stationary farm and ranch activities. This definition includes on-site renewable energy sources.
- Energy Management: Optimization of energy use on farms and ranches to minimize energy consumption.
- Qualified Energy Auditor: A person who has the technical qualifications to perform an agricultural energy audit. In most cases a Qualified Energy Auditor will be a professional engineer.
- Energy Source: The type of fuel (liquid or gas), electricity or on-site renewable power used to perform farm and ranch activities.
- Current Energy Usage: The annual and seasonal usage, as appropriate, of grid electricity and/or natural gas and purchased fuels (liquid or gas) for stationary farm or ranch operations.

Additional Guidance:

A Comprehensive Energy Audit will include a written report signed by a Qualified Energy Auditor. The Energy Audit should be tailored to the individual farm and should cover the primary energy users such as irrigation pumping, heating and cooling of livestock production facilities, manure collection and transfer, grain drying and similar common on-farm activities. Energy use will be converted to a common unit of energy (Btu) for the purpose of recording the baseline energy use and calculating energy use reduction. The Btu Conversion Calculator can be used to perform these energy use conversions.

Producer Acknowledgement:

I agree to maintain energy records, and to obtain a Comprehensive Energy Audit utilizing a auditor as described above as indicated in the Conservation Security Program contract.

Client: _____ **Date:** _____

Listed below are some example components to consider for typical individual on-farm or ranch activities. You may have others for your specific location and operation:

a. Irrigation

- Pumps
- Stationary Motors (all types)
- Miscellaneous

b. Grain Drying

- Stationary Motors
- Fans
- Heating Systems
- Type of Drying System
 - Batch Drying
 - Continuous Flow Drying
- Miscellaneous

c. Animal Housing and Processing

- Lighting
- Heating/Cooling – including insulation type and amount
- Ventilation
- Stationary Motors
- Pumps
- Refrigeration
- Hot water heaters
- Miscellaneous – cleaning systems

d. Other Farm Buildings excluding homestead:

- Lighting
- Heating/cooling systems
- Miscellaneous

e. Greenhouses

- Lighting
- Heating
- Ventilation
- Pumps
- Stationary Motors
- Miscellaneous

f. Animal Waste collection

- Pumps
- Stationary Motors
- Lighting
- Miscellaneous – Methane Digesters