



## Conservation Enhancement Activity

**E374144Z2**

# CONSERVATION STEWARDSHIP PROGRAM

### Switch fuel source for pump motor(s)

#### Conservation Practice 374: Farmstead Energy Improvement

**APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial); Pasture; Associated Ag Land; Farmstead**

**RESOURCE CONCERN ADDRESSED: Inefficient Energy Use**

**ENHANCEMENT LIFE SPAN: 10 years**

#### Enhancement Description

Switch the fuel source for the pump motor(s) indicated in the energy audit to a renewable source (wind, solar, geothermal, etc.). (CPS 533 Pumping Plant)

#### Criteria

- Implement recommendations for components of a current Type 2 energy audit performed in accordance with the American Society of Agricultural and Biological Engineers (ASABE) Standard S612, Performing On-farm Energy Audits.
- Where required, certify that the replacement or retrofit system and related components or devices meet or exceed currently applicable federal, state, and local standards and guidelines. Components of major activities by farm enterprises defined in ASABE S612 will meet the appropriate NRCS or industry standard, such as:
  - NRCS Conservation Practice Standard, Farmstead Energy Improvements (Code 374)
  - NRCS Conservation Practice Standard, Pumping Plant (Code 533)
  - NRCS Conservation Practice Standard, Combustion System Improvement (Code 372)
- Include written specifications describing the following site-specific installation details of installation:

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- Plan view showing the location of the measures in relation to other structures or natural features, where appropriate.
- Estimate of energy and air quality savings from fuel source change.
- Method used to protect existing power provider from back feed from renewable source.
- Electrical wiring must meet the requirements of the National Electrical Code.
- Operation and maintenance plan will be developed that is consistent with the purpose(s) of this practice, its intended life, and safety requirements.



**Documentation and Implementation Requirements**

Participant will:

- Prior to implementation, review current Type 2 energy audit including season of use, motor needs and current operation.
- Prior to implementation, evaluate site specific renewable energy alternatives.
- During implementation, ensure installation meets federal National Electrical Code and any local or state codes.
- After implementation, provide documentation of installation including first season energy use for comparison to prior years (from energy audit) to NRCS for review to verify implementation of the enhancement.
- After implementation, monitor and maintain system for life time of the practice (10 years).

NRCS will:

- Prior to implementation and as needed, NRCS will provide technical assistance.
- Prior to implementation, provide and explain NRCS Conservation Practice Standards, Farmstead Energy Improvements (Code 374), Pumping Plant (Code 533) and Combustion System Improvement (Code 372) as it relates to implementing this enhancement.
- Prior to implementation, review with producer costs and benefits for conversion to renewable energy source.
- Prior to implementation, consider and document the air quality benefits in addition to the energy source savings.
- Prior to implementation, evaluate options during lack of production of renewable energy source based on state Conservation Practice Standard and specifications to address the resource concern.
- Prior to implementation, develop written specifications describing site specific details of installation, including:
  - The replacement or retrofit system and/or related components or devices.
  - Baseline system energy usage and potential energy savings from the implementation of this enhancement.
- Prior to implementation, develop and explain to the participant the operation and

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maintenance guidelines for the practice.

- After implementation, check installation to ensure it meets NRCS practice standards and site-specific specifications
- After implementation, certify installation.

**NRCS Documentation Review:**

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name \_\_\_\_\_ Contract Number \_\_\_\_\_

Total Amount Applied \_\_\_\_\_ Fiscal Year Completed \_\_\_\_\_

\_\_\_\_\_  
NRCS Technical Adequacy Signature

\_\_\_\_\_  
Date