

Conservation Enhancement Activity

E374A



<u>Install variable frequency drive(s) on pump(s)</u>

Conservation Practice 374: Farmstead Energy Improvement

APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial);

Pasture; Associated Ag Land; Farmstead

RESOURCE CONCERN: Energy

ENHANCEMENT LIFE SPAN: 10 years

Enhancement Description

Install Variable Frequency Drive(s) (VFD) on Pumping Plant (Conservation Practice Standard CPS 533) with the correct sensors, on all pumps as indicated in the energy audit.

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)

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United States Department of Agriculture

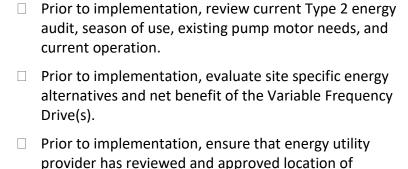
- Include written specifications describing the following site-specific details of installation:
 - o The replacement or retrofit system and/or related components or devices.
 - Baseline system energy usage and potential energy savings from the implementation of this enhancement.
 - Plan view showing the location of the measures in relation to other structures or natural features, where appropriate.
 - o 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.



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Documentation and Implementation Requirements

Participant will:



installation on pump motor, including needs for

electrical harmonic filter.

CONSERVATION	
STEWARDSHIP)
PROGRAM	

Prior to implementation, obtain written documentation of utility approval for site with requirements for installation.

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 the costs and benefits for installation of Variable Frequency Drive(s).

☐ Prior to implementation, develop written specifications describing site specific details of installation, including:

- The replacement or retrofit system and/or related components or devices.
- System energy usage and resulting potential energy savings from the implementation of this enhancement.

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	Prior to implementation, develop, provide maintenance plan for this enhancement.	, and explain to the participant the operation and
	After implementation, verify installation m	neets NRCS enhancement criteria.
Ιh	RCS Documentation Review: have reviewed all required participant docunt plemented the enhancement and met all cr	nentation and have determined the participant has riteria and requirements.
Pa	rticipant Name	Contract Number
То	otal Amount Applied	Fiscal Year Completed
	NRCS Technical Adequacy Signature	 Date