



CONSERVATION ENHANCEMENT ACTIVITY

E533D

CONSERVATION STEWARDSHIP PROGRAM

Switch fuel source for pumps

CONSERVATION PRACTICE: 533 - Pumping Plant

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

RESOURCE CONCERN: Air

ENHANCEMENT LIFE SPAN: 15 years

Enhancement Description

Switch the fuel source for the pump motor(s) to an on-farm renewable source (wind, solar, geothermal, etc.).

Criteria

- Replace an existing pump motor with a drive unit that is powered by a renewable source such as wind, solar, geothermal, etc. that can adequately maintain the existing operating conditions, flow rates and pressures.
- The replacement or retrofit system and related components or devices meet or exceed currently applicable federal, state, and local standards and guidelines.
- Components of this enhancement will meet the NRCS Conservation Practice Standard Pumping Plant (Code 533).



CONSERVATION STEWARDSHIP PROGRAM

Documentation and Implementation Requirements

Participant will:

Prior to implementation:

- Evaluate current operating conditions of the existing pump(s) including season of use and motor needs.
- Evaluate site specific renewable energy alternatives.
- Evaluate options during lack of production of renewable energy source.

During implementation

- Ensure installation meets federal National Electrical Code and any local or state codes.

After implementation

- Monitor and maintain system for the life span of the practice (10 years).

NRCS will:

Prior to implementation

- Provide and explain NRCS Conservation Practice Standard Pumping Plant (Code 533) as it relates to implementing this enhancement.
- As needed, provide additional technical assistance to the participant as requested.
- Review with the participant the costs and benefits of conversion to renewable energy source.
- Develop written specifications describing site specific details of installation, including:
 - The replacement or retrofit system and/or related components or devices.
 - Plan view showing the location of the measures in relation to other structures or natural features, where appropriate.
 - Method used to protect existing power provider from back feed from renewable source.
 - Electrical components that meet the requirements of the National Electrical Code.
 - Operation and maintenance plan that is consistent with the purpose(s) of this practice, its intended life, and safety requirements.

Design Approvals & Acknowledgements:

Design Approval	Date	Job Approval Authority
Designed by:		
Approved by:		

Client's Acknowledgement Statement:

The client acknowledges:

- I have received a copy of the specification and understand the contents and requirements.
- It is my responsibility to obtain all necessary permits and/or rights and to comply with all ordinances and laws pertaining to the application of this practice.
- I will not begin installation of this practice until I have received appropriate approval to do so. I understand NRCS also has Federal and state laws to comply with that may take some time to address (e.g. cultural resources).

Client's Signature	Date

Certification Documentation:

	Field Evaluation: Post-treatment inventory, measurements, notes, as-built, and supporting documentation (document completion in conservation plan), as required.
	Map(s): Including field numbers, fields treated, and units treated (may document on conservation plan map), as required.
	Photos or other supporting documentation (e.g., seed tags, soil tests, receipts, invoices, spray records, fertilizer records, etc.)
Brief Description of Work Accomplished (types of equipment used, date of application, extents and quantities installed, etc.)	

Certification Statement:

The employee certifies the implementation of this conservation practice:

- Meets the purpose, general criteria, and any required additional criteria as documented in the conservation practice standard and/or enhancement sheet.
- Meets the specifications contained herein and is complete.
- Conforms to my existing Job Approval Authority controlling factors and levels.

Name	Date	Job Approval Authority

Field Level Certification – For multiple applications of this design.				
Land Unit/ Contract Item Number	Date	Unit(s)	Amount Installed	Certifier