

Michigan Farm Energy Audit Training -(Greenhouse)

(Phase I, May 16-18, 2012, Rm. 114 Farrall Hall)

Introduction and Training Summary

Training Strategy
Training Schedule
Requirements
CEU's and Certification
Technical Guide

Farm Energy Audit Program

Farm Energy Audit

- Overview of Funding Sources
 - USDA Rural Development – REAP (formerly 9006)
 - USDA NRCS – CSP
 - Utility Companies
 - MI Saves
- Opportunities

MI Greenhouse Industry

Greenhouse Operations and Procedures

Electric Rates and Categories

Greenhouse Energy Use Assessment and Options

- Lighting
- Boilers
- Unit Heaters
- Thermal Curtains
- Energy Conservation Technologies
 - Heat Loss
 - Infiltration Losses
 - Heating Systems
 - New Construction
 - Central Control Systems
 - Fuel Heating Cost
- Electric Motors, Pumps, VSDs and Electrical Wiring

Assessment Tools

Energy Conservation Assessment Tools
Virtual Grower Simulation Program
Infrared Camera Use and Analysis
Calculators

Energy Efficient Management Options

Alternative Energy Options

USDA-REAP Grant and Loan Application

Case Study Review and Calculation Exercises

Conducting a Greenhouse Energy Audit

- Analysis of utility bill and energy use records for previous 12 months
- Forms and gathering information
- What data is supplied by the operator
- How to conduct an audit
- Review a sample Greenhouse Energy Audit Report
- Do's and don'ts while on the site

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