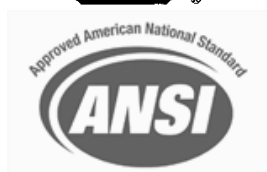


ANSI/ASABE S612 JUL2009 (R2015)
Performing On-farm Energy Audits



**American Society of
Agricultural and Biological Engineers**

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Performing On-farm Energy Audits

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Keywords: Audit, Costs, Efficiency, Energy, Management

1 Purpose

1.1 This Standard establishes procedures for performing on-farm audits to determine and document current energy usage, and to provide an estimation of energy savings from alternatives in the cultivation, protection, harvesting, processing and storage of agricultural commodities and in the feeding, housing and processing of farm animals and animal products. This Standard is provided to guide the reporting of data and the preparation of specific recommendations for energy reduction and conservation with estimates of energy savings.

2 Scope

2.1 This Standard is intended to support energy audits of all types of farming operations (which includes ranching) typically found in North America. Energy audits shall exclude the farm residence, except where it is not practical to separate base line data.

2.2 This Standard does not address secondary (off-farm) energy savings in the development and evaluation of alternatives. For example, reduction in the amount of fertilizer used on a farm would represent a reduction of the associated energy needed to produce fertilizer for the farm at a fertilizer production facility (off-farm). This type of energy savings is not addressed as a part of this Standard.

3 Definitions

3.1 energy: For the purposes of this Standard energy is the resource used to power equipment to do mechanical work or to generate heat, light or cooling.

3.2 energy resource: Source from which energy is obtained, including gasoline, diesel fuel, biofuel, propane, natural gas, electricity, solar, wind, wood, biomass, geothermal, etc.

3.3 farm enterprise: Production category of a farm. For example, a farm may include a field crop enterprise and a livestock enterprise (see Table 1).

3.4 major activity: A discrete activity associated with a farm enterprise that utilizes an energy resource, or that heavily impacts energy resource use. For example, a cropping enterprise may include grain drying, crop planting, tilling, and harvesting activities (see Table 1).

3.5 component: Individual parts of a major activity. For example: lighting systems include lamps, ballasts, timers, sensors, etc. (see Table 1).

3.6 energy auditor: A licensed professional engineer or other technically qualified individual who will certify that the audit report provided to the farmer/rancher meets the requirements outlined in ASABE S612.