2013 Energy Conservation Award

The winner of this year's Energy Conservation Award is Roger Speer with his solar panel project.

The basis of selection of individual awardees will be determined on the following points:

a. Efficient use of energy in farmstead buildings, equipment, and operations including but not limited to building insulation; heating and cooling such as ground source heat pumps; lighting; and striving for peak fuel efficiency in high energy consumption components such as irrigation pumping, refrigeration, power units for tillage, harvesting equipment, etc

b. Production of energy from renewable sources including but not limited to solar; wind; biomass; biofuels such as biodiesel, methane, ethanol, etc

c. Utilization of renewable energy sources including those mentioned in b. above as well as other similar sources

d. Cogeneration of energy such as internal combustion engine powered generator with beneficial use of waste engine heat

e. Co-utilization of energy through combining processes such as heat one stream while cooling another by using heat exchanger; cool milk while heating water for cleaning by using a heat pump; etc.

The solar panels that Roger has installed are located at his home and power their house, shop, and other structures located there. Roger completed the project last year with the hope that it would offset the rising cost of electricity.

Attached to the roof of the shop, there are 42 panels which are rated for 10 kw, but the maximum Roger has used is 9.7. He is on a Net Metering system rather than a parallel system, which has allowed for the average electric bill to be only $10.10 per month.

The initial cost of the project was the biggest obstacle to overcome which came down to $1000 per panel, but 70% of the cost was written off the 1st year in tax credits.

Another issue that does arise is they don't work if snow is piled on top of them, however they will still generate power when it is cloudy.

The panels to have to be maintained to keep them clean in order to operate at maximum efficiency. However this can be as simple as hosing them off, when there is a lot of traffic on the road near the house.

Will you please welcome Roger Speer to accept the Energy Conservation Award.