

ASCE American Society of Civil Engineers®

COW POWER

by

Nick DuBois, Avatar Energy



Avatar Energy is an innovative company dedicated to the development of pioneering technologies that capture renewable energy from organic waste products, while increasing agricultural profitability and sustainability through environmentally responsible interventions. Their revolutionary anaerobic digester is the world's first scalable system to employ a tubular, modular design platform suitable for any size farm, but geared particularly to small- and mid-sized operations.

Designed to take advantage of the huge economic resources available in organic waste, their digester enables farmers to capture "biogas" derived from cow manure and convert it into energy that can power the farm and/or generate a new stream of income from "green power" by-product sales. Sanitized solids from the digester can be sold or used for animal bedding, compost, or pelletized and burned for fuel. Liquid digester effluent will yield a nitrogen-rich, pathogen-free fertilizer that can be sold or sprayed on crops, and a phosphorus-rich sludge can be sold for use in hydroponic gardening applications. Their completely closed system also offers the diminished potential for manure leakage into the watershed, reducing the risk of crop contamination. An added benefit of the closed unit is a dramatic reduction in odor emissions by more than 90 percent. With reduced odors comes a reduction in vector control and breeding that can plague animal operations. All of these benefits make for a more cost-efficient, hygienic operation that in turn contributes to the remediation of air and groundwater, yielding safer, cleaner, less costly grains and produce for the public and improved relations with adjacent communities.

Tuesday, January 27th, 2009

5:00-6:00 pm Social time at Peking Duck House, Winooski, VT

6:00-7:00 pm Dinner *(Buffet style eating)

7:00-8:00 pm Speakers/dessert

*Chicken Fingers, Crab Rangoon, Egg Rolls, House Duckling, Moo Goo Gai Pan, Three Delicacy Shrimp, Mongolian Beef, House Fried Rice.

ATTENDING: _____ TOTAL \$ _____
Last Name First Name

\$30 per person/\$15 per student/ASCE Life Members are Free (NO SHOWS WILL BE BILLED)

Please sign up with Bernie Gagnon by **Jan. 20th, 2009**

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(m) Town of Shelburne c/o Director of Public Works Vermont PO Box 88, Shelburne, VT 05482

For the Vermont Section of the American Society of Civil Engineers - 1 PDH earned for attendance