

Energizing the Valley and Generating Jobs

Panel 4 – Energizing Employment



Presented by:
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Your Presenter

Tom Hintz is the Managing Partner of SeaHold® LLC, a firm in the waste-to-energy field, with anaerobic digestion as its primary focus.

Tom works with colleges, private industry, farmers, innovative entrepreneurs, and government agencies to conceptualize and implement waste-to-energy projects that will yield significant revenue, while maximizing environmentally sound practices. Tom is recognized for his expertise in the field, and regularly advises local, regional and state regulatory agencies that govern renewable energy projects.

Tom has been a frequent speaker at industry events. In addition, he holds a comprehensive “Biogas 101” one-day course on biogas energy and renewable energy concepts.

Through the SeaHold Team Biogas® group, instruments and state-of-the-art technologies are made available to laboratory and digester operators to increase their anaerobic process understanding and efficiency.



Energizing the Valley and Generating Jobs

- ▶ The Central Valley produces approximately 8% of the USA's agricultural output (230 different crops are grown here)
- ▶ The Central Valley is home to more than 1600 dairies, with an average of 600 cows per dairy
- ▶ There are over 100,000 beef cattle at Harris Ranch
- ▶ All of these sources produce significant amounts of organic waste that can be converted into renewable energy
- ▶ The Community Anaerobic Digester (CAD) is the key

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- ▶ The CAD is a centralized site where all of the “waste organics” can be converted into renewable fuel

- ▶ The fuel has many uses:
 - Fuel electrical generators
 - Create vehicle fuels (CNG, LNG)
 - Sell the fuel to the energy grid

- ▶ Many organics will be involved – local agriculture (animal wastes, crop waste, specifically grown energy crops) community resources (landfill diversion – green waste), commercial resources (food processors, grease trap waste)

- ▶ All project stakeholders in the CAD will benefit from:
 - Renewable biofuels
 - Reduced carbon footprint
 - Carbon capture credits
 - Residual liquid returns vital nutrients to crops; reduces/eliminates chemical fertilizers
 - Residual solids (fiber) improves soil till

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- ▶ The CAD builds jobs by:
 - Creating a broad based talent and expertise pool (operators, technicians, research)
 - Creating “skill ladders” that transfer to other industries (waste water treatment, university research)
- ▶ **All jobs and skills developed by the CAD can stay in the Valley**
- ▶ Biodico/Red Rock Ranch project: utilizes local employees, and provides internships through West Hills Community College

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▶ Other successful CAD projects:

Facility	Feedstock	Biogas use
Qualco Energy (WA)	Manure (dairy) slaughter house waste, food processing waste, grease trap waste	1.2 mW electricity sold to utility
Vermont Technical College (VT)	Manure (dairy, hog), clean food waste	Electricity for facility, heat back to campus
Fremont Municipal Digester (MI)	Food processing waste, manure (dairy)	3 mW electricity
Cayuga Regional Digester (NY)	Manure (dairy, hog) grease trap waste, food processing waste	625 kWh, sold back to utility
Bio Town (IN)	Manure (dairy, hog), food processing waste	3 mW electricity for facility and immediate campus needs

THANK YOU



STRATEGIC BUSINESS DEVELOPMENT

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