Disappearing Biosolids Management Options

Local, State and Federal regulations are becoming increasingly stringent and restrictive of the current biosolids management practices of soil amendment and landfill cover. Further restrictions on these traditional biosolids management options without a biosolids to energy solution will increase air pollutants and costs to ratepayers as biosolids are transported greater distances for disposal.

2012 Request for Qualifications

Through a Request for Qualifications process, BAB2E has identified a range of promising technologies for realizing our resource recovery goals emphasizing energy. The technologies include innovative, ready-to-deploy options as well as emerging options with potential for smaller scale deployment.

B2E Technology Demonstrations

BAB2E secured close to $1 Million through the California Energy Commission’s PIER program and is seeking funding through the Department of Energy (DOE).

Through its work, the coalition has identified several promising technologies that could help meet the goal of converting biosolids to high-value, usable energy, including renewable electricity, drop-in fuel, and hydrogen. Demonstrations to show these technologies work with biosolids at a commercial scale are essential to enable their use in our industry.

The energy potential contained in wastewater and biosolids exceeds by ten times the energy used to treat it, and can potentially meet up to 12% of the national electricity demand. That’s enough to power New York City, Houston, Dallas and Chicago annually.


For more information: www.bayareabiosolids.com

Caroline Quinn: Engineering Services Director, DDSD, carolineq@ddsd.org

Biosolids to Energy is the Green Choice

With additional capital investment, the United States wastewater industry has the potential to be energy self-sufficient and support the integration of advanced technology to become a net energy producer, helping to meet our nation’s goals for renewable energy.

Maximizing a renewable energy resource potential while minimizing GHG Footprint.

U.S. treatment plants produce over 7.2 million metric dry tons of Biosolids annually. The Bay Area Biosolids to Energy coalition is committed to creating energy from biosolids utilizing state-of-the-art technology to generate clean and renewable energy resources of value to society and the environment.

Today’s Biosolids = Tomorrow’s Clean Energy

Biosolids contain latent energy that can be tapped via combustion of methane gas or a variety of technologies. The conversion process for biosolids involves heating the material to break down the solids and create gases that are converted to energy.

Biosolids to energy conversion may utilize a range of processes including pyrolysis, gasification, steam reform, fluidized bed reactor and arc plasma.

BAB2E receives California Energy Commission Grant

The BAB2E Coalition has received a Public Interest Energy Research (PIER) grant of nearly $1M from the California Energy Commission for a biosolids to energy demonstration project. The PIER mission is to develop, and help bring to market, energy technologies that provide increased environmental benefits, greater system reliability and lower system costs. Through its work, the coalition has identified several promising technologies that could help meet the goal of converting biosolids to high-value, usable energy, including renewable electricity, drop-in fuel, and hydrogen. Demonstrations to show these technologies work with biosolids at a commercial scale are essential to enable their use in our industry.

Focused on Securing Long-Term Benefits for Society and the Environment

www.bayareabiosolids.com
Biosolids are the end result of all domestic waste which is discharged from homes and commercial establishments after undergoing extensive physical, chemical and biological treatment. Biosolids are carefully monitored and must be used in accordance with regulatory requirements.

### Project Highlights:

1. Proactively and collaboratively respond to increasing need for new approaches within wastewater industry which reduce risk and maximize resource recovery.
2. Diversity biosolids management options with technologies which can create high-value, usable energy such as renewable electricity, drop-in fuel and hydrogen.
3. Advance knowledge and acceptance of new conversion technologies and potential energy products which benefit our communities and protect the environment.

### What is the BAB2E Coalition?

Eighteen San Francisco Bay Area agencies have come together to create the Bay Area Biosolids to Energy Coalition. Operating under a Joint Exercise of Powers Agreement (JEPA), these environmental stewards are dedicated to ensuring clean water supplies and actively working together to address biosolids management issues impacting residents and the environment around the San Francisco Bay Area.

The San Francisco Bay Area generates over 158,000 dry metric tons of biosolids each year - enough to fill AT&T ballpark to 51 ft.