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.

2013 Request for Proposals

Two Request for Proposals were received in October 2013 offering B2E projects which could be installed within one, or more, of the 19 member Coalition facilities. Each proposal presented innovative emerging technologies that could repurpose biosolids and benefit our environment. Interviews were undertaken November 13, 2013 and both proposals are now under review by the Coalition.

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). Water Environment Research Foundation (WERF) is under contract to provide independent peer review through a panel of independent industry researchers and specialists.

Advocacy for state and federal funding, policy and regulations to incentivize and accelerate B2E technology innovation and deployment continued in 2013:

- Federal: Senate and House Energy and Water Committee Appropriations bill language directing/encouraging the inclusion of biosolids within the definition of “noncellulosic” feedstock for the purposes of allocating resources.
- State: Advocating for allocation of funds under the state Alternative Renewable Fuel and Vehicle Technology Program and for funding under the Cap and Trade Proceeds process for biosolids to energy projects.

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.

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.

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.

Fifteen San Francisco Bay Area agencies, representing four million residents, have come together to seek a local, sustainable solution to biosolids management.

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 costs. The Coalition project will demonstrate the efficacy of a unique electrochemical conversion process designed to process high-moisture feedstock at moderate temperatures and at smaller scale than traditional conversion technologies and is being done in partnership with Lawrence Livermore National Laboratory and a private company, Chemergy Inc.

Aligned with Environmental Initiatives:

- Converting Biosolids and green waste to energy
- Helping meet California Global Warming Solutions Act (AB32), Renewable Portfolio and Bioenergy Action Plan goals
- Decreasing Greenhouse Gases
- Significantly reducing truck miles - presently over one million miles annually
- Meet or exceed stringent San Francisco Bay Area air quality standards.

More information: www.bayareabiosolids.com

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Bay Area Biosolids to Energy Project Partners

What are Biosolids?
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. This process forms a safe, beneficial agricultural product. Biosolids are carefully monitored and must be used in accordance with regulatory requirements.

Who is the BAB2E Coalition?
Nineteen 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.

Project Goals:
BAB2E is committed to help achieve state and federal goals of meeting electricity and low carbon fuel needs with renewable sources. BAB2E aims to capture the energy within biosolids on a larger scale and in a more efficient method to benefit our communities today and for future generations.

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

1 *ADC = Alternative Daily Cover