# ONSITE POWER SYSTEMS INC.



## "Open House" (Oct. 24, 2006)

#### GREEN ENERGY FOR A CLEANER FUTURE

The technology underlying the Biogas Energy Project is an advanced, high-rate "anaerobic phased solids digester," or APS Digester. It uses naturally occurring bacteria to break down, or "digest," organic solid and liquid wastes in an oxygen-free, or "anaerobic," system. In the process, it produces biohydrogen and biomethane that can be burned as fuels.

There are great potential environmental and business benefits of the APS Digester: It greatly reduces waste disposal costs and helps businesses comply with environmental regulations. And using the generated biogases as fuel reduces our dependency on fossil fuels.

As the APS Digester goes to market, it offers a safe and economical means of dealing with the growing amount of organic wastes generated daily throughout the world.

#### THE BIOGAS ENERGY PROJECT THANKS THESE SPONSORS FOR GRANTS, LABOR AND MATERIALS:

- . Public Interest Energy Research (PIER) Program of the California **Energy Commission**
- California Integrated Waste Management Board
- The Propane Education & Research Council (PERC)
- Graybar
- · Norcal Waste Systems, Inc.



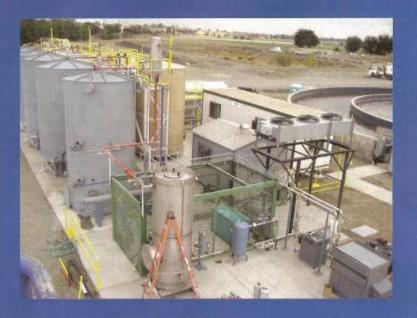












## UNIVERSITY OF CALIFORNIA

AND

### ONSITE POWER SYSTEMS

PRESENT THE

**BIOGAS ENERGY PROJECT** COMMERCIAL DEMONSTRATION FACILITY START-UP CEREMONY

> TUESDAY, OCTOBER 24, 2006 10 A.M.

> > AT UC DAVIS

#### FOREWORD

The Biogas Energy Project is an innovative public-private alliance between UC Davis and Onsite Power Systems, Inc.



The project leaders are (L-R) Dave Konwinski, CEO of Onsite Power Systems, and Ruihong Zhang, a UC Davis professor of biological and agricultural engineering.

#### **HOW WASTE BECOMES ENERGY**

- In this process, called an "anaerobic digester," the action begins when
  organic waste material is loaded into the system. ("Organic" means it's
  made from plants and animals. In this case, the waste material is food
  scraps from San Francisco restaurants.)
- Under oxygen-free (anaerobic) conditions, naturally occurring hacteria break the waste down into organic acids and water.
- At this stage, some hydrogen is produced, drawn off and is ready for use as fuel.
- Next, the water containing organic acids is mixed with other bacteria to produce methane (natural gas).
- The methane is then captured, cleaned and compressed for use in natural-gas buses, cars and trucks. It also may be burned in an engine.

#### PROGRAM

#### WELCOME AND INTRODUCTIONS

#### DAVE KONWINSKI

CEO, Onsite Power Systems, Inc.

#### SPEAKERS

#### DAN LUNGREN

U.S. Representative, California Third Congressional District (Counties of Sacramento, Amador, Calaveras and Alpine)

#### **NEAL VAN ALFEN**

Dean, UC Davis College of Agricultural and Environmental Sciences

#### **ENRIQUE LAVERNIA**

Dean, UC Davis College of Engineering

#### RUIHONG ZHANG

Professor, UC Davis Department of Biological and Agricultural Engineer

#### **VAL TIANGCO**

Senior technical lead, Public Interest Energy Research (PIER) Program California Energy Commission

#### MARGO REID BROWN

Chair, California Integrated Waste Management Board

#### DAVE KONWINSKI

CEO, Onsite Power Systems, Inc.

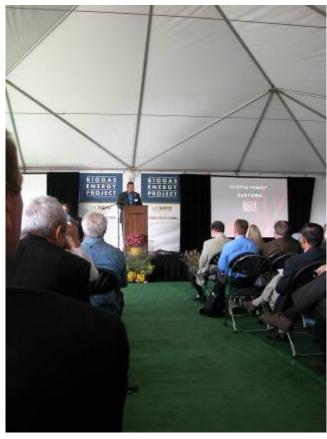
#### START-UP CEREMONY

DAVE KONWINSKI AND RUIHONG ZHANG will conduct the official start-up ceremony.

#### CONCLUSION

Thank you for attending. Please join us for refreshments.





Dave Konwinski CEO, Onsite Power Systems

"Welcome and Introductions"



Dan Lungren U.S. Representative Third Congressional District (Counties of Sacramento, Amador, Calaveras and Alpine)

Neal Van Alfen Dean, UC Davis of Agriculture and Environmental Sciences





Enrique Lavernia Dean, UC Davis College of Engineering

Dr. Ruihong Zhang Professor, UC Davis Dept. of Biological and Agricultural Engineering





Val Tiangco Senior Technical Lead Public Interest Energy Research (PIER) Program California Energy Commission (CEC)

Margo Reid Brown Chair, California Integrated Waste Management Board





Gathering for the start-up ceremony of the APS Digester System.

Dave Konwinski and Dr. Ruihong Zhange loading the conveyor belt with Green Waste.





Guests and reporters viewing the APS demonstration.

Displays and charts of the APS technology and process and other alternative renewable energy efforts being studied at UC Davis.





Guests beginning to arrive (news van in background).



"Green Men" being powered by bio-methane gas being produced by Onsite Power Systems APS digester!

Guests looking on at the demonstration.





Open House luncheon and mingling.



Reporters interviewing Dave Konwinski (CEO, Onsite Power Systems, Inc.)

Open House buffet table (luncheon).





A view of the APS Digester.