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AGENDA

DOE/CETC/CANDRA Workshop on Microturbine Applications

January 17-18, 2002

University of Maryland Inn and Conference Center

College Park, Maryland, USA

Day 1 – Microturbine Installation and Operating Experiences

Thursday, January 17, 2002

8:00	Continental Breakfast	
8:00	Speakers Coordination Meeting – Speaker Ready Room	
	<i>CHAIRPERSON, MORNING SESSION – DEBBIE HAUGHT</i>	
8:30	Welcome & Goals	Debbie Haught, U.S. Department of Energy
8:45	CETC Field Trials of Microturbine CHP Systems	Rob Brandon, CETC
9:15	Mariah Heat PlusPower™ Packaged CHP: Applications and Economics	Richard Adamson, Mariah Energy Corporation
9:45	Technology that Powers the 21 st Century	Masaru Takayama, Meidensha Corporation
10:15	Coffee Break	
10:45	Turbec CHP Project	Bob Reedy, Turbec Americas
11:15	Lessons Learned and Performance of the CHP for Buildings Integration Test Center at the University of Maryland	Dr. Reinhard Radermacher, Director – CEEE, University of Maryland
11:45	Poster Previews	Poster Presenters
12:00 – 12:30	Lunch	
	<i>CHAIRPERSON, POSTER SESSION – DAVE STINTON</i>	
12:30 – 2:00	Tour for half of attendees, CHP for Buildings Integration Test Center, Chesapeake Office Building, University of Maryland	
12:30 – 2:00	Poster Session / Exhibit for half of attendees	
	<i>CHAIRPERSON, AFTERNOON SESSION – REINHARD RADERMACHER</i>	
2:00	CHP Packaged System at Walgreens	Bob Kramer, NiSource
2:30	Installation at Holiday Inn, Fargo, ND	Ed Torrero, NRECA
3:00	Harbec Plastics 25-unit System for Primary Power and CHP	Bob Bechtold, Harbec Plastics



Harbec Plastics, Rochester, NY



Midland Road Installation, Toronto



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AGENDA (CONTINUED)

Day 1 – Microturbine Installation and Operating Experiences
Thursday, January 17, 2002

- 3:30 *Coffee Break*
- 4:00 Microturbine Applications in the Horticultural Industry Yan Evans,
Advantica Technologies Limited
- 4:30 Bowman CHP Application in Madrid Spain Kourosh Mehrayin,
Bowman Power
- 5:00 Operating Experiences at the Commercial Building Dr. Abdi Zaltash, ORNL
CHP Laboratory at the Oak Ridge National Laboratory
- 5:30 *Tour of the CHP for Buildings Integration Test Center for Poster Presenters*

Dinner on Your Own

Day 2 – Resource Recovery and Future Directions
Friday, January 18, 2002

- 7:30 *Continental Breakfast*
- 7:30 Speakers Coordination Meeting – **Speaker Ready Room**

Resource Recovery / Waste Fuels

- 8:00 *CHAIRPERSON, MORNING SESSION – ROB BRANDON*
Capstone Experience in the Alberta Oilfields Dan Boonstra,
Gridlink Power Systems
- 8:30 Honeywell Microturbines and Oilfield Experience Bob Williams,
Mercury Electric Corporation
- 9:00 Operation of Microturbines using Digester or George Wiltsee, Capstone
Landfill Gases
- 9:30 Performance Verification of Microturbines: Instrument Sushma Masemore,
Selection, Installation, and Field Operation SRI International



Lopez Canyon Landfill, Los Angeles County



Mercury Electric's Numac Otter Installation



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AGENDA (CONTINUED)

Day 2 – Resource Recovery and Future Directions
Friday, January 18, 2002

10:00	Coffee Break	
10:30	DOE Microturbine and Industrial CHP Program	Debbie Haught/Merrill Smith, U.S. Department of Energy
11:00	DOE CHP for Buildings Program	Ronald Fiskum, U.S. Department of Energy
<i>CHAIRPERSON, POSTER SESSION – DAVE STINTON</i>		
11:30 – 1:00	<i>Tour for half of attendees, CHP for Buildings Integration Test Center, Chesapeake Office Building, University of Maryland</i>	
11:30 – 1:00	<i>Poster Session / Exhibit for half of attendees</i>	
1:00 – 1:30	Lunch	
1:30	Open Discussion From Demonstration to Economic Market Applications, What is Needed to Make it Happen? <ul style="list-style-type: none"> • What are the near term market applications and how large are they? • Are there technology gaps that need to be bridged? • Are there distribution/support issues that need to be addressed? • Is early user feedback being picked up and acted on? • Installed cost, how can it be reduced? • How close to the market need is the current product offering? 	Debbie Haught/Rob Brandon
2:00	Adjourn	



Microturbine/Absorption Chiller Integrated System
at University of Maryland



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Poster Session / Exhibit

Design of a 40kW Micro Gas Turbine Engine by a Group of 22 Senior Engineering Students

Microturbine Operating Experiences at Clemson University

Unifin International Experience with Microturbine Heat Recovery

Broad Absorption Chillers for Microturbine Applications

Integrated CHP System

Operational Experiences of Microturbines at an Aquarium

Materials for Advanced Higher Temperature Recuperators

Operational Performance of Health Canada Project

Development of Standardized Test Protocols for Microturbine Generators

Adsorption Refrigeration using Microturbine Exhaust

SCE/DOE Microturbine Testing at the University of California, Irvine

Pre-Installation Evaluation of Utility-Purchased Microturbines

Terris Yakimovich/Diana Psihista,
Carleton University

Jeff Hinson, Clemson University

Tom Yu,
Unifin International

Gearoid Foley, Broad

Richard Adamson,
Mariah Energy Corporation

James Pfeiffer, Enertec, LLC

Phil Maziasz,
Oak Ridge National Laboratory

Brian Boyd, PWGSC

Vince McDonnell, UCI

Luke Li, DY Refrigeration

Stephanie Hamilton, SCE

Abbas Akhil, Sandia



MEIDEN MioSpectrum Roof-Top Microturbine
CHP Unit



Turbec CHP Greenhouse Installation



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Poster Session / Exhibit (Continued)

Manufacturer Highlights

Bowman Power

Tony Hynes

Capstone Turbine Corporation

Steve Gillette

Elliott Energy Systems

John Holbrook

Ingersoll-Rand Energy Systems

Jim Watts

Turbec

Bob Reedy

Pratt & Whitney Power Systems

Tom Rosfjord

Recent Awards for DOE CHP for Buildings Solicitation

Capstone Turbine Corporation

Packaged B CHP System with Absorption Chillers

Ingersoll-Rand

70 kW Microturbine + ammonia-water absorption refrigeration system

NiSource Energy Technologies

Packaged B CHP System with 3 microturbines, heat exchangers, absorption chiller and desiccant unit

United Technologies Research Center

400 kW DTE Energy Technologies Mini-Turbine coupled with Carrier absorption chillers



Oil Fired Mariah CHP Unit



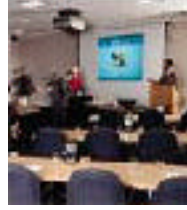
Elliott Energy Systems
Installation



Ingersoll-Rand Power
Works

Hotel Information

The conference will be held at **The Inn and Conference Center** on the Campus of University of Maryland University College, 12 miles from downtown Washington, D.C. For Room reservations, please contact:



The Inn and Conference Center
3501 University Boulevard East
Adelphi, Maryland 20783
Tel: 1-800-727-8622
or (301) 985-7303
Fax: (301) 985-7445

Website: www.ConferenceCenters.com/confcenters/wasum/

The room rate is **\$119/night** (plus tax). The cut-off date for the conference rate is **December 27, 2001**. Reservations made after this date will be accepted on a space-available basis. **Remember to mention** that you are with the Microturbine Meeting when booking your room.

Directions

FROM BALTIMORE: 1-95 South to Capital Beltway (I-495) to College Park. Take U.S. 1 South (Exit 25). Proceed Approximately 1 mile south on U.S. 1. Turn right on 193 West (University Blvd). At 3rd traffic light (Adelphi Road) make "U" Turn. Turn right into parking garage.

FROM ANNAPOLIS AND POINTS EAST:
Route 50 to Capital Beltway (I-495, I-95) North to College Park. Take U.S. 1 South (Exit 25). Proceed approximately 1 Mile south on U.S. 1. Turn right on 193 West (University Blvd). At 3rd traffic light (Adelphi Road) make "U" Turn. Turn right into parking garage.

FROM WASHINGTON D.C.:
New Hampshire Avenue (650 North). Right at light on 193 East (University Blvd). At 6th traffic light, cross Adelphi Road. Turn right into parking garage.

FROM MONTGOMERY COUNTY AND POINTS WEST:
Capital Beltway (I-495). Take New Hampshire Avenue/ Takoma Park (650 South). At 2nd light, make a left on Adelphi Road. At 3rd light, make a left on University Blvd. Turn right into parking garage.

REGISTRATION FORM

DOE/CETC/CANDRA Workshop on Microturbine Applications
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College Park, Maryland, USA

Please fill out this form and return it with your registration fee or billing information to:

Sandra Maldonado
Oak Ridge National Laboratory
P.O. Box 2008
Oak Ridge, TN 37831-6065, U.S.A.

or fax it to: **+1-865-241-0411**. To register by phone, call Sandra Maldonado at **+1-865-574-8860**. If you have any questions, please send an e-mail to **maldonadosl@ornl.gov**.

Name of Attendee _____

Badge Name _____

Title _____

Organization _____

Tel _____ Fax _____

Address _____

City _____ State _____

Postal Code _____ Country _____

E-mail _____

Meeting Registration Fee: US\$200

Total Amount Enclosed: US\$ _____

_____ Check (payable to **Microturbine Workshop**)

Credit Card: _____ VISA _____ MasterCard

Account # _____

Exp. Date _____

Name _____

(as it appears on card)

Signature _____

If you have dietary restrictions, please let us know so that we may accommodate your needs.