

## **Transitioning to a Modern Grid: Opportunities for CMU**

### **A Workshop in the Center for Building Performance and Diagnostics (CBPD)**

**Carnegie Mellon University  
The Robert L. Preger Intelligent Workplace  
Margaret Morrison Carnegie Hall, Room 415  
January 18 and 19, 2007**

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#### **Thursday, January 18, 2007**

- 11:00 Welcome and Introductions
- 11:15 Transitioning to a Modern Grid, Opportunities for Universities, Kurt Yeager, President Emeritus, EPRI, Galvin Foundation
- 12:00noon Brief Overview of Opportunities for Research, Development and Demonstrations of Integrated Energy Conversion, Distribution and Conservation in CMU's:
- Neighborhood: Bellefield Steam Generating Plant, Martin Altschul
  - Campus Energy and Electricity Use, Martin Altschul, Bradley Hochberg, Barbara Kviz
  - Building as Power Plant (BAPP), Volker Hartkopf  
Intelligent Workplace Energy Supply System (IWESS),  
David Archer  
Information Technology Enabled Sustainability Test-bed (ITEST),  
Volker Hartkopf
- 12:30 Lunch
- 2:00 In-Depth Presentations and Discussions
- Bellefield Steam Generation Plant and Future Plans Status, Challenge and Potential Solutions, Martin Altschul  
Coal Gasification, Distributed Electric Energy Generation, David Archer with Robert Romanosky and Donald Bonk of the National Energy Technology Laboratory (NETL)
  - CO2 Sequestration: Are Large Greenhouses an Option? Volker Hartkopf, Richard Piacentini, Phipps Conservatory, Valentin Kefeli, Slippery Rock Watershed
  - River Quest, Dan Siewiorek
  - Commonwealth of Pennsylvania Clean Coal Technology Initiatives, a representative of the Department of Environmental Protection (DEP) (to be confirmed)
- 3:30 Break

- 4:00 Campus
- Energy and Electricity Use, Renewables and Conservation Opportunities, Martin Altschul, Bradley Hochberg, Barbara Kviz
  - Prototypical Building Level Electricity Monitoring Project, James Garrett
  - Center for Sensed Critical Infrastructures: Goals and Objectives, James Garrett and Matthew Sanfilippo
  - CMU Electricity Industry Center Goals and Objectives, (Jay Apt) (to be confirmed)
  - People Tracking, Dan Siewiorek
- 5:15 Adjournment of First Day
- 7:00 Dinner
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### **Friday, January 19, 2007**

- 8:00am Coffee and pastries
- 8:30 Wei, Quingpeng, Professor, Tsinghua University, China, Control Systems and Energy Use
- 9:00 Gates Building HVAC, Building Automation, Energy Use Predictions  
Andrew Reilly (to be confirmed)
- 9:30 Building as Power Plant (BAPP), Volker Hartkopf
- 10:00 Intelligent Workplace Energy Supply System (IWESS)  
David Archer, and team: Fred Betz, Yun Gu, Sophie Masson, Ming Qu, Viraj Srivastava, Chaoqin Zhai
- 10:45 Information Technology Enabled Sustainability Test-bed (ITEST) Volker Hartkopf, Khee Poh Lam and Industrial Partners (Aircuity, Airadvice, Bosch, Cisco Systems, LTG, Siemens, Somfy)
- 11:15 Arndt Lutz, Conergy, The Conergy Business Model (title to be confirmed)
- 11:45 Planning Next Steps, Volker Hartkopf
- 12:30 Meeting adjourns with lunch

The persons named without an affiliation indicated are CMU faculty or staff.