

The 6th Annual Notre Dame Environmental Education and Research Conference

# NDEER 2007

## Energy and the Environment

Wednesday, October 10, 2007



## NDEER 2007 Speakers



### Rodney Ewing

Rod Ewing is the Donald R. Peacor Collegiate Professor in the Department of Geological Sciences at the University of Michigan. He has faculty appointments in the Departments of Nuclear Engineering & Radiological Sciences and Materials Science & Engineering and is an Emeritus Regents' Professor at the University of New Mexico where he was a member of the faculty from 1974 to 1997. His research involves issues related to nuclear waste management. Ewing has been an invited expert to the Advisory Committee on Nuclear Waste of the Nuclear Regulatory Commission and a consultant to the Nuclear Waste Technology Review Board. He received his Ph.D. from Stanford University in 1974.



### John Ledyard

The Allen and Lenabelle Davis Professor of Economics and Social Sciences at the California Institute of Technology, Professor Ledyard did pioneering work on the theoretical foundations and the applications of mechanism design, and contributed greatly to our understanding of the roles of incentives and information in markets and organizations. His more applied work has included the development of computer-assisted markets for trading pollution rights, managing resources for spacecraft and instrument design, acquiring logistics contracts, swapping portfolios of thinly traded securities, and decision markets. He received his Ph.D. from Purdue University in 1967.



### Michael J. Mudd

Michael J. Mudd is the chief executive officer of FutureGen Alliance. Prior to his current position, he served as the manager of Generation Technologies and Technology Development for American Electric Power (AEP) with responsibility for corporate research and development associated with energy supply technologies, including coal, gas, nuclear, and renewable energy. He played a key role in the analysis that led to AEP's IGCC projects that are under development. FutureGen is a public-private partnership working to build a first-of-its-kind coal-fueled, near-zero emissions power plant.

## Organizing Committee

### Joan F. Brennecke

Keating-Crawford Professor of Chemical and Biomolecular Engineering and Director of the Notre Dame Energy Center

### Thomas Gresik

Professor, Economics and Econometrics, and Fellow, Helen Kellogg Institute for International Studies

### Jeffrey Feder

Professor, Biological Sciences, and Director of the Global Linkages of Biology, the Environment, and Society Program

### Jeremy B. Fein

Professor, Civil Engineering and Geological Sciences, and Director of the Center for Environmental Science and Technology

### Richard Jensen

Professor and Department Chair, Economics and Econometrics, and Concurrent Professor and Finance Fellow, Helen Kellogg Institute for International Studies

### Prashant Kamat

Professor, Chemistry and Biochemistry, and Concurrent Professor, Chemical and Biomolecular Engineering

### David Lodge

Professor, Biological Sciences

### Paul McGinn

Professor, Chemical and Biomolecular Engineering

### Mark Schurr

Associate Professor and Department Chair, Anthropology

## Conference Participants

### Daniel Alessi

Graduate Presidential Fellow, Civil Engineering and Geological Sciences

### Joan F. Brennecke

Keating-Crawford Professor of Chemical and Biomolecular Engineering and Director of the Notre Dame Energy Center

### Peter C. Burns

Massman Professor and Department Chair, Civil Engineering and Geological Sciences, and Concurrent Professor, Chemistry and Biochemistry

### Thomas C. Corke

Clark Equipment Professor, Aerospace and Mechanical Engineering, Director of the Center for Flow Physics and Control, and Director of the Hessert Laboratory for Aerospace Research

### JaNeille Dixon

Postdoctoral Research Associate, Chemical and Biomolecular Engineering

### Michael Edwards

Assistant Vice President, Office of Research

### Jeremy B. Fein

Professor, Civil Engineering and Geological Sciences, and Director of the Center for Environmental Science and Technology

### Tori Forbes

Research Associate, Chemistry and Biochemistry

### Keith Gutowski

Postdoctoral Research Associate, Chemical and Biomolecular Engineering

### Jessica Hellmann

Assistant Professor, Biological Sciences

### Frank P. Incropera

Professor, Aerospace and Mechanical Engineering, and Dean Emeritus, College of Engineering

### Travis Marsico

Graduate Student, Biological Sciences

### Gilberto Mejia-Rodriguez

Graduate Student, Aerospace and Mechanical Engineering

Held annually since 2001, the NDEER symposium highlights the depth and diversity of environmental research occurring throughout the University of Notre Dame. This year's conference specifically addresses energy and environmental issues, policy, and management.

**McKenna Hall Atrium**

8:15 a.m. – 8:30 a.m.

CONTINENTAL BREAKFAST

**McKenna Hall Auditorium**

8:30 a.m. – 8:45 a.m.

WELCOME AND INTRODUCTIONS

Michael Edwards  
Assistant Vice President  
Office of Research

**Joan F. Brennecke**

Keating-Crawford Professor of Chemical  
and Biomolecular Engineering and  
Director of the Notre Dame Energy Center

8:45 a.m. – 9:45 a.m.

ENERGY AND CARBON MARKETS

John Ledyard  
Allen and Lenabelle Davis Professor of  
Economics and Social Sciences,  
California Institute of Technology

9:45 a.m. – 10:00 a.m.

BREAK

10:00 a.m. – 11:00 a.m.

NUCLEAR ENERGY ISSUES

Rodney Ewing  
Donald R. Peacor Collegiate Professor  
of Geological Sciences,  
University of Michigan

11:00 a.m. – 12:00 p.m.

FUTUREGEN ALLIANCE

Frank Incropera  
Dean Emeritus and Professor of Aerospace  
and Mechanical Engineering

**Lower Level Dining Room**

12:10 – 12:50 p.m.

LUNCHEON

**McKenna Hall**

1:00 p.m. – 2:00 p.m.

BREAKOUT SESSIONS

CO<sub>2</sub> Capture and Impacts (Rooms 100-104)  
Nuclear Energy Issues (Rooms 112-114)  
Clean Coal Utilization (Room 106)

2:00 p.m. – 3:00 p.m.

BREAKOUT SESSIONS

CO<sub>2</sub> Capture and Impacts (Rooms 100-104)  
Nuclear Energy Issues (Rooms 112-114)  
Clean Coal Utilization (Room 106)

**McKenna Hall Auditorium**

3:00 p.m. – 4:00 p.m.

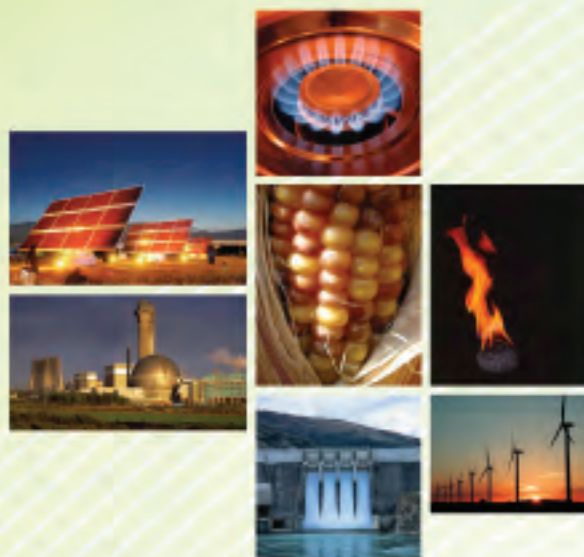
CLOSING DISCUSSION

Panelists: Rodney Ewing, John Ledyard, and Michael J. Mudd  
Moderator: Joan F. Brennecke

4:00 p.m. – 4:15 p.m.

CLOSING REMARKS

Joan F. Brennecke



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### **Sponsors**

Notre Dame Energy Center, University of Notre Dame

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