

## ***Critical Materials Flow in an Age of Constraint:***

*Exploring Challenges and Solutions Across Materials*

Hosted by the United States Department of Energy's Office of Intelligence, Science and Technology Division and the Woodrow Wilson International Center for Scholars

***May 25, 2011***

Meeting Location: Woodrow Wilson International Center for Scholars  
One Woodrow Wilson Plaza, 1300 Pennsylvania Ave., NW, Washington, DC 20004-3027

8:00 - 8:30AM

### **Breakfast**

8:30 – 9:00 AM

### **Workshop's Introductions – Why do we gather today?**

- David Rejeski, WWICS
- Irving Mintzer, Chief Strategist for the Potomac Energy Fund

- Importance of discussing the availability of critical materials
- Importance of digging below the surface to examine geopolitical, environmental, social and economical issues related

9:00 – 9:30 AM

### **Helium**

- Overview – Critical Shortage – Solutions, Challenges and Knowledge Gaps  
*Dr. Joseph Glaser, Department of Energy, National Nuclear Security Administration*

9:30 – 10:15

### **Plenary Sessions** Presentation of the Case-studies

Case studies will address: Overview of material (historical, present and forecasts), strategic implications (national security, economic, environmental, etc.), challenges and knowledge gaps, possible solutions.

- **Phosphorus**
  - James Elser, Arizona State University
  - Stephen Jasinski, U.S. Geological Service
  - Donna Perla, U.S. Department of Agriculture
  - David Vaccari, Stevens Institute of Technology

10:15 – 10:30

### **Break**

10:30 – 12:00

### **Plenary Session 2 (continued)**

- **Lithium**
  - Albert “Kip” Davis, DOE
  - Irving Mintzer, Chief Strategist for the Potomac Energy Fund
- **Neodymium**
  - Jack Lifton, Institute for Analysis of Global Security
  - Karl Gschneider, Ames Laboratory

12:00 – 1:00 PM

### **Lunch Keynote Address – DOE’s Critical Materials Strategy**

- Diana Bauer – Department of Energy

1:00 – 1:15 PM

### **Congressional Perspective**

- Marcius Extavour – Senate Committee on Energy and Natural Resources

1:15 PM – 2:00 PM

### **Crosscutting Discussion 1: Materials flow and supply - Eric Sander, DOE**

- Forecasting limitations and challenges
- Analysis of strategic implications
- Identification of supply options and/or substitutes.

2:00 – 2:45 PM

### **Crosscutting Discussion 2: Recycling and Recovery**

- What are the barriers to recycling and recovery (technological, policies, institutional, etc.)?
- What is the current state of the art and future challenges?

2:45 – 3:00 PM

### **Break**

3:00 – 4:00 PM

### **Crosscutting Discussion 3: Data and Research Needs (what do we need to know?)**

- What data are missing?
- What are the research needs?

4:00 – 4:15 PM

### **Concluding Comments**

### **Adjourn**