Possible EMF 24 Study Topics

- Energy Security
- Technology and Climate Change
- Bio-Energy and Climate Change
- Advanced Energy Efficiency Scenarios
- Accession and Burden Sharing Scenarios
Technology & Stabilization Topic

- Broad-Based Technology Study
  - Renewables, CCS, Nuclear, EE, Non-CO2 Gases
- Build on EMFs 19, 21, Land Group, 22 & 25
- Co-ordinate With NREL Initiative & SRRN
- Other Possible Synergies?
Update on EMF Activities

Energy Modeling Forum Sponsors and Affiliates Annual Meeting
Washington, D.C.

John P. Weyant
June 5, 2009
EMF Climate Change

Study Areas/Working Groups/Activities

- EMF Overview
- EMF 22: Climate Change Policy Scenarios
- EMF 23: World Natural Gas Markets and Trade
- EMF 24: Uncertainty in Climate Change Policy
- EMF 25: Energy Efficiency
- “New Scenarios” Process/IAMC/RCPs
- Institution And Network Building
- Outreach
Energy Modeling Forum

Objectives

- Understand Model Differences
- Understand Strengths and Weaknesses of Existing Models/Methodologies
- Identify Useful Information and Insights for Corporate Planning and Government Policy Making
- Identify High Priority Areas for Development of New Data, Analyses, and Modeling Methodologies
EMF Design Principles

- Broad Participation
- Focus on Model Comparisons
- Policy Relevance
- Decentralized Analysis
- Wide Dissemination of Results
Key EMF Roles

- Repository of Information About Models/Modeling/Policy&Modeling
- Honest Broker
  - Policy Developers
  - Model Users
  - Model Developers
  - Model Funders
- Soft Model Assessment
- Spokesmen for Modeling Community
Shifting Priorities from EMF 22+

- Stabilization Scenarios
- Transition Scenarios
- Black Carbon
- Land Use Modeling
- New Baseline IA Scenarios

AeroCom & IPCC

IA Scenarios

Uncertainty Analysis

EMF 22-2009
Land Use Modeling

Objectives
- Improve Land Use Components of IA Models
- Develop New Methods and Data for This

Co-ordinators
- Steve Rose, EPA
- Richard Tol, The World
- Tom Hertel, GTAP, Purdue University

Last Meetings
- December 12-14, 2006 - Tsukuba Japan
- Next: Snowmass 2008

Black and Organic Carbon

- Objectives
  - Develop Data on BC/OC for Use in IA Models
  - Determine How to Reflect BC/OC in IA Models

- Co-ordinators
  - Ben DeAngelo, EPA
  - Tami Bond, Univ. of Illinois
  - AEROCOM

- Last Meeting/Next Meeting
  - Last: December 12-14, 2006 - Tsukuba Japan
  - Next: Spring 2010@ Next AEROCOM Meeting
EMF 22: Climate Policy Scenarios

- **Objectives**
  - Look at Realistic Transition Scenarios
  - Compare With “Efficient” Scenarios
  - Three Parts: Global, US, and EU

- **Co-ordinators**
  - Leon Clarke, JGCRI, US (Super Co-ordinator)
  - Christoph Böhringer, Oldenberg University, Germany
  - Tom Rutherford, ETH, Switzerland

- **Meetings**
  - September 2008, IIASA (Austria)
  - March, 2009 UMD (USA)
  - Current: DC Briefing (Yesterday)
  - Brussels, Tokyo, Negotiators Briefings

- **Publication** – Energy Economics Special Issue-Soon
Baseline and Stabilization Scenarios

- Objectives
  - Create New Community Reference Scenarios
  - Create New Community Stabilization Scenarios
  - Evolving EMF and IAMC Roles

- Integrated Assessment Modeling Consortium
  - Develop Community Wide Priorities
  - Interface With Science and Impacts Communities
  - Co-ordinators: Nakicenovic, Kainuma, Weyant

- Energy Modeling Forum
  - Implement Some of the Community’s Priorities
  - Pursue Initiatives of High Value to Affil. And Sponsors

- EMF/IAMC Last Meetings/Next Meetings
  - 2007: Snowmass in August, Netherlands in September
  - 2008: DC in February, IIASA in September
  - 2009: September in Japan
World Natural Gas Markets and Trade

Objectives

- Design Stochastic Model Comparisons
  - Optimizing Models with Learning and Adapting (Gary Yohe)
  - Simulation Models Over Climate Outcomes (Mort Webster)
- Possibly Use as Bridge Between Transition and Stabilization Scenarios

Last/Next Meeting

- Last: Fall 2008, Wesleyan (Gary Yohe)
- Next: Fall 2009, MIT (Mort Webster)
EMF 25: Energy Efficiency

- Working group has met twice since November 2008.
- Group will discuss second-round scenarios this November.
- Goal will be to have a preliminary evaluation by spring/summer 2010.
Climate Change Impacts and IA

- Snowmass 2009
  - Urban IAV – Yohe, Wilbanks, Ebi, Vallario
  - Improving Usefulness of IA – Richels
  - Nordhaus/Naki Workshop on Tech Change-II
  - Modeling Renewables – Doug Arent (NREL)

- Snowmass IA Website
Institution/Network Building
(Weyant)

- IPCC Workshops on New Emissions Scenarios
  - D.C., IIASA, Seville, Noordwijkerhout
- IPCC AR4 - WG III Chapter 3 Review Editor
- Start-Up of EMF Asia – China/India Workshops
- Start Up of EMF Latin America
  - Kick-off Meeting In Rio in Sept. 2006
- Planning for EMF Africa
Institution/Network Building
(Huntington)

- Global Economic Symposium, Plön Castle, Schleswig-Holstein, Germany, September 4-5, 2008.


Outreach Activities

- Editor – Energy Economics
- Editorial Board – The Energy Journal
- ASA-IA Advisory Board
- CARB Economic and Technology Advancement Advisory Committee
- Advisory Board - World Bank WDR 2010 on Climate Change
- NAS America’s Climate Choices Science Panel-2009