

# 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





# 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

## ■ Book: Economic Analysis of Land Use in Global Climate Change Policy – Hertel, Rose, and Tol 2009.

# 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

# EMF 23

## World Natural Gas Markets and Trade

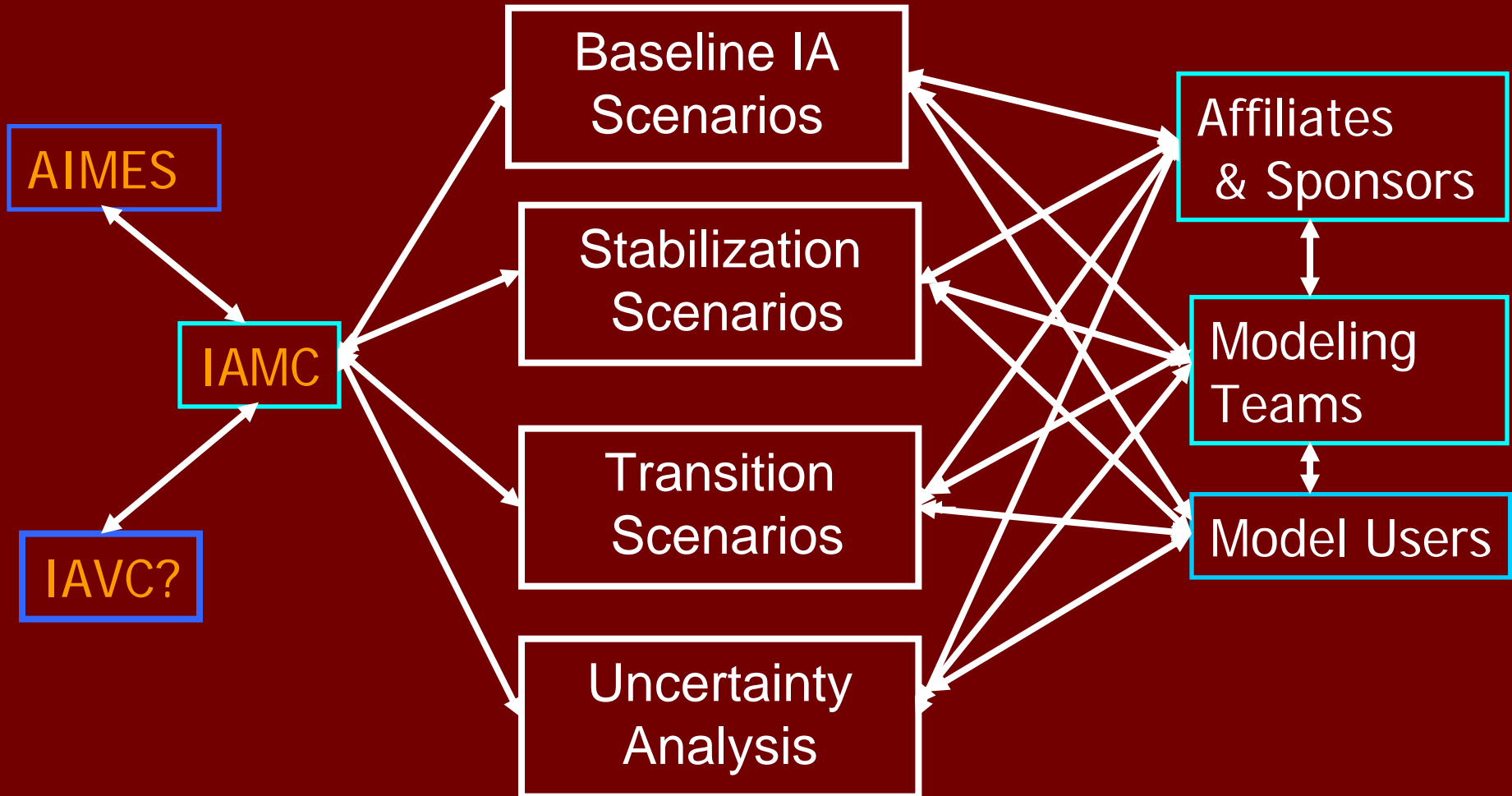
- World Natural Gas Markets and Trade: A Multi-Modeling Perspective, Special Issue of The Energy Journal, 2009.

# Current Priorities for EMF 24+

Collaborators

EMF

Clients



# EMF 24: Uncertainty

## ■ 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.
- External Expert Review Panel for Energy Benefits, United States National Energy Technology Laboratory, Morgantown, WV, March 18-19, 2009.
- Member, Expert Review Panel for Stochastic Energy Deployment System, Washington, DC, May 7-8, 2009.

# 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