### NATIONAL PETROLEUM COUNCIL

### COMMITTEE ON GLOBAL OIL AND GAS

### STUDY WORK PLAN: SCOPE, ORGANIZATION, AND TIMETABLE

June 21, 2006

By letter dated October 5, 2005, Secretary of Energy Bodman requested that the National Petroleum Council undertake a study on the ability of global oil and gas supply to keep pace with growing world demand. Specifically, the Secretary stated that key questions to be addressed in the study may include:

- What does the future hold for global oil and natural gas supply?
- Can incremental oil and natural gas supply be brought on-line, on-time, and at a reasonable price to meet future demand without jeopardizing economic growth?
- What oil and gas supply strategies and/or demand-side strategies does the Council recommend the U.S. pursue to ensure greater economic stability and prosperity?

(The complete text of the Secretary's request letter is attached.)

### **BACKGROUND**

In his address to the National Petroleum Council at the June 22, 2005 meeting, Secretary Bodman expressed his concerns about growing worldwide energy demand; the serious technical, and often political, issues in developing future petroleum reserves; and the need for greater transparency about known reserves in producer nations. He reiterated the President's view that "energy security is essential to maintaining our nation's strong economic growth and ensuring our long-term prosperity."

In further discussions with the Council leadership, the Secretary, his staff, and others in the Administration stressed the important contribution such a study could provide in informing critical energy policy decisions. The impacts on energy markets of world events and Hurricanes Katrina and Rita underscored the tightness of world supply and demand balances and the need for a better understanding of the factors affecting them.

On November 4, 2005, the NPC Agenda Committee reviewed this request and recommended that it be accepted by the NPC. By fax ballot on December 7, 2005, the National Petroleum Council concurred in this recommendation without dissent. The first part of 2006 was devoted to identifying the study's leadership and initial participants and developing a detailed and well thought out approach to the conduct of the study. On June 20, the NPC Committee on Global Oil and Gas reviewed and approved the study work plan as outlined in the following sections of this paper.

### STUDY SCOPE

The Secretary and Council leadership agreed to the approach of a broadly worded study request letter with the details of the scope of the study to be developed in discussions between the Department of Energy and an NPC committee established to oversee the conduct of the study and the preparation of a final report. The study's Coordinating Subcommittee, which includes the leaders of the Task Group, developed this study plan for consideration by the NPC Committee on Global Oil and Gas and the Department through the Secretary's designated Government Cochair. Broadly, the study will:

- Evaluate global energy outlooks/opportunities/vulnerabilities in the context of the commodity energy marketplace, focusing on implications for the U.S.
- Evaluate global economic outlooks/opportunities/vulnerabilities in the context of worldwide economic drivers and energy consumption, focusing on implications for the U.S.
- Examine the potential for and consequences of world geopolitical events that would have significant impacts on global and U.S. petroleum and natural gas supply and demand.
- Identify and assess policy options and actions the U.S. government could take to reduce the risk of such supply and demand impacts.
- Assess the potential contribution of conservation, efficiency, alternative energy sources, and technology advances under various economic and policy scenarios.
- Assess the broad potential for technology advances to increase petroleum and natural gas supply by 2030.
- Identify and assess U.S. policy options related to the global energy supply and demand outlook, as a subset of the global energy commodity marketplace, in order to promote sustained economic growth.

The study approach is expressly designed to be inclusive by engaging and involving a broad and diverse group of opinion leaders and interested parties from within and outside the National Petroleum Council. The goal is to identify both demand and supply policy options that would be applicable under a wide range of futures. The scope of the study's detailed methodology is to conduct analyses, governed by antitrust guidelines, that will:

- 1. Assess global energy supply and demand balance to 2030 within range of outlooks
  - a. Assess the global energy supply outlook to 2030
    - 1) Discuss accuracy of forecast models
    - 2) Analyze publicly available historical data on supply trends
    - 3) Develop a range of potential global and U.S. oil and natural gas supply outlooks
  - b. Assess the global energy demand outlook to 2030
    - 1) Assess global macroeconomic framework
    - 2) Discuss accuracy of forecast models
    - 3) Analyze publicly available historical data on demand trends
    - 4) Develop a range of potential global and U.S. demand outlooks

- 2. Identify and discuss the key drivers of various available global supply and demand outlooks to 2030
  - a. Supply
    - 1) Policy initiatives that could increase access to domestic oil and natural gas resources
    - 2) Effective U.S. foreign policies to promote international energy access and development, as well as a stable supply system
    - 3) Potential for technology advances to increase petroleum and natural gas supply by 2030, and to support improvements in energy efficiency
    - 4) The potential role of alternative/renewable energy sources
    - 5) Assessment of means to promote stable legal and fiscal global trade systems to sustain energy development
    - 6) Assessment of policy measures to minimize short-term supply disruptions
    - 7) Environmental considerations

### b. Demand

- 1) Analysis of historical data on demand responses to changes in energy costs
- 2) Potential for technology advances affecting demand
- 3) Potential for energy efficiency improvements
- 4) Substitution for petroleum and other hydrocarbons in the overall energy mix
- 5) Assessment of what forms of energy are likely to be interchangeable and what are not
- 6) Demand responses to regulatory and fiscal systems
- 7) Environmental considerations
- 3. Provide an overall assessment of the energy supply and demand position of the U.S. with a focus on opportunities, gaps, and vulnerabilities
- 4. Discuss policy implications and options for U.S. government officials
  - a. Assessment of key global geopolitical trends likely to impact oil and natural gas supply and demand
  - b. Identification and evaluation of policy options designed to increase supplies and to support demand growth
  - c. Assessment of options should consider key objectives of sustaining economic growth, promoting energy security and protecting the environment
  - d. Consideration of relevant lessons learned from past energy policy responses.

### STUDY ORGANIZATION

The organization that will conduct the study analyses as outlined above and will prepare a draft report for the Council's consideration, consists of:

- Committee on Global Oil and Gas
- Coordinating Subcommittee
- Task Groups
  - Demand
  - Supply
  - Technology
  - Geopolitics & Policy.

A Chair, Government Cochair, and four Vice Chairs will provide the leadership of the Committee. The Subcommittee and Task Groups will be comprised of a broad and diverse group of participants from U.S. and foreign oil and gas companies, other energy companies, service and construction companies, as well as from consumer, consultant, financial, academic, public interest, and governmental organizations. The Task Groups will be supported by a number of subgroups focused on specific topic areas, many of which will be cross-cutting among the Task Groups. In addition, significant contractor support may be needed.

(A chart of the proposed study organization is attached.)

### STUDY TIMETABLE

The timetable for the study envisions the completion of the analyses and the preparation of a draft report for the Council's consideration within one year. Additional time may be required for final documentation and communication of the report.



# The Secretary of Energy Washington, DC 20585

October 5, 2005

Mr. Lee Raymond Chairman, National Petroleum Council 1625 K Street, NW Washington, DC 20006

Dear Mr. Raymond:

Perspectives vary widely on the ability of supply to keep pace with growing world demand for oil and natural gas, the point in time at which global oil production will plateau and then begin to decline ("peak oil"), the implications these may have for the U.S. and world economy, and what steps should be taken to achieve more positive outcomes.

Accordingly, I request the National Petroleum Council conduct a study on global oil and natural gas supply. Key questions to be addressed in the study may include:

- What does the future hold for global oil and natural gas supply?
- Can incremental oil and natural gas supply be brought on-line, on-time, and at a reasonable price to meet future demand without jeopardizing economic growth?
- What oil and gas supply strategies and/or demand side strategies does the Council recommend the U.S. pursue to ensure greater economic stability and prosperity?

For the purposes of the study, I am designating Under Secretary David Garman to represent me and to provide the necessary coordination between the Department of Energy and the National Petroleum Council. He will also provide coordination with the Department of State, other Federal agencies, and international organizations as required.

I look forward to reviewing the Council's proposed study committee and detailed study plan.

Sincerely.

Samuel W. Bodman

# NPC Global Oil and Gas Study Organizational Structure

### NATIONAL PETROLEUM COUNCIL

Secretary of Energy

### **COMMITTEE**

Chair – Lee R. Raymond Government Cochair – David K. Garman

Vice Chair-Demand – Daniel H. Yergin Vice Chair-Supply – David J. O'Reilly Vice Chair-Technology – Andrew Gould Vice Chair-Geopolitics & Policy – John J. Hamre

### **COORDINATING SUBCOMMITTEE**

Chair – Alan J. Kelly Government Cochairs – Jeffrey D. Jarrett & James A. Slutz

### DEMAND TASK GROUP

Chair – James Burkhard Government Cochair – Paul D. Holtberg

### SUPPLY TASK GROUP

Chair – Donald L. Paul Government Cochair – Nancy L. Johnson

### TECHNOLOGY TASK GROUP

Chair – Rod Nelson Government Cochair – Guido DeHoratiis

## GEOPOLITICS & POLICY TASK GROUP

Chair – Frank A. Verrastro Government Cochair – David L. Pumphrey