DEPARTMENT OF ENERGY
NATIONAL PETROLEUM COUNCIL

In the Matter of: *
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GLOBAL OIL SUPPLY AND *
DEMAND ISSUES *
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June 21, 2006
The Willard Hotel
1401 Pennsylvania Ave. N.W.
Washington, D.C. 20004

PRESENT:

LEE R. RAYMOND, Chairman National Petroleum

HONORABLE SAMUEL W. BODMAN, Secretary of Energy

ALAN KELLY

CLAIBORNE P. DEMING

RAY HUNT

RONALD ERICKSON

ANDREW GOULD

JOHN J. HAMRE

DAVID J. O'REILLY

MARSHALL W. NICHOLS

JOHN F. BOOKOUT

KATERI CALLAHAN

JOHN KRENICKI, JR.

DAVID J. MANNING

CLARENCE P. CAZALOT, JR.

CHADWICK C. DEATON

MEMBERS PRESENT:

CLAIBORNE DEMING

DOUGLAS B. PETNO

ROBERT W. FRI

RONALD B. GOLD

CHARLES W. GOODYEAR

JOHN D. HOFMEISTER

GERALD T. McPHEE

HAROLD N. KVISLE

MICHAEL C. LINN

JOHN R. DEARBORN

ROBERT L. PARKER, SR.

PETER R. ROSE

RICHARD SCHAEFFER

ADAM E. SIEMINSKI

HONORABLE BRANKO TERZIC

OTHERS PRESENT:

JOSEPH CAGGIANO

JOHN J. CONTI

WILLIAM R. FINGER

JOHN H. GUY

JOHN J. HAMRE

HONORABLE JEFFERY JARRETT

NANCY JOHNSON

ALAN J. KELLY

JAMES NEWSOME

OTHERS PRESENT:

RODNEY F. NELSON

BENJAMIN A. OLIVER, JR.

DONALD L. PAUL

DAVID J. SLUMP

JAMES A. SLUTZ

GLEN E. SWEETNAM

CRUZ GABRIELA UBAY

FRANK A. VERRASTRO

THOMAS ZIMMERMAN

A G E N D A

P R O C E E D I N G S

MR. RAYMOND: Good morning.

Will the 116th meeting of the National Petroleum Council please come to order.

Welcome to all of you, Members of the Council, Guests and members of the press and the public.

We have what I hope will be an informative session here today.

If there is no objection, I will dispense with the calling of the roll. The check in will serve as our official attendance record. Any member or observer for a member who has not checked in, please do so before you leave, so we have an accurate record of today's attendance.

I would like to introduce to you and for the record the participants at the head table.

On my left from our Global Oil and Gas Committee are Andrew Gould, Vice Chairman of Technology; John Hamre, Vice Chair, Geopolitics and Policy; Dave O'Reilly, Vice Chair of Supply and Under Secretary Dave Garman, the Committee's Government go-chair. On my far right is Marshall Nichols, Executive Director of the Council, and next to Marshall is Jeff Jarrett, Assistant Secretary for Fossil Energy.

And on my immediate right is Sam Bodman, Secretary of Energy.

Earlier this month, Mr. Secretary, you selected and appointed the members of the Council for the 2006/07 term. In June of 1946, the charter members of the Council were appointed and called to Washington for the Council's first meeting. That meeting, as is this 116th meeting, was held on the 21st of June. The Council has advised every administration in the past 60 years, through 10 secretaries of the Interior and 10 predecessors secretaries of Energy.

In your 16 months in your current job, you have become well known and respected by the members of this Council. And we are honored to have you with us here this morning. We look forward to your comments. Would you please welcome Secretary of Energy, Sam Bodman.

(Applause.)

PRESENTATION BY SECRETARY OF ENERGY BODMAN:

SECRETARY BODMAN: Thank you, Lee, for your nice introduction. Good morning everybody. It is very nice to see you and very nice to be here.

I also want to thank Marshall Nichols for all that he does to help further the Council's important work.

These are times of price spikes, global uncertainty and a lot of conflicting opinions on the state of the world's oil reserves. As such, the country needs your collective expertise to help develop a long term strategy, to ensure America's energy security as well as our economic prosperity.

We are also going to need help to meet the challenges that are posed by developing economies, particularly those in Asia.

Now many of you, I know are new to the Council. I want to extend a special welcome to you, and I want to thank those of you who have agreed to serve another term on this Council.

I want to talk to you briefly this morning about the future of U.S. energy supply and security, at least as I see it. The American people are very concerned and rightfully so about the recent and rapid increases that we have all experienced in the price of gasoline. I seem to be overseeing, kind of a moveable press conference each day, talking about that subject. The citizens of our country are looking to us for leadership. They are looking to the President for leadership and I believe he is providing it through his recently announced Advance Energy and America Competitiveness Initiatives.

They are also looking to us to maintain a secure supply of affordable energy, something that I hope the National Petroleum Council's forthcoming Global Oil and National Gas Study will help us do.

Last October I asked you to conduct a study on global oil and national gas supplies. At that time I asked you to provide a perspective on the future of supply and whether incremental oil supply can be brought on line, on time and at a reasonable price to meet future demands without jeopardizing our economic growth.

I also asked you to recommend oil supply and demand side strategies that the United States could pursue to ensure greater economic stability and prosperity for our country.

These are very weighty issues. Beyond the temporary disruptions in supply and demand, is a real shift in the dynamic between the developed economies of the west and the oil producing world. The Wall Street Journal dealt with this issue in some detail in a front page story just this past week. A story that I suspect many of you read with a lot of interest. In sum the Journal concluded that the leading crude producing nations realized that they now have more leverage over consuming nations for two reasons.

(1) The accelerating industrialization of developing economies like China and India, has turned them into reliable customers.

And secondly, because they are "keeping a tighter grip on their spigots".

Over the last year, I have been traveling a fair amount. I have been to the Middle East twice. I have been to Russia, to Central Asia, and I have had a chance to see and hear firsthand how the rest of the world sees the supply and demand equation worldwide, and where we are headed.

In Washington, I have met with the Energy Ministries from Canada and Mexico, our two largest suppliers of crude oil and with the Saudi Oil Minister, Mr. Ali al-Naimi, with the Qatari Energy Minister, Abdullah Bin Hamad al-Attiyah and the Nigerian Oil Minister and OPEC President Edmund Daukoru. All of these folks have been quite open and direct in their conversations with me.

In April, I traveled to Doha in Qatar for the annual International Energy Forum where I had the opportunity to conduct bilateral meetings with many of my counterparts, especially those from Saudi Arabia, from Algeria, Kuwait, the U.A.E, Qatar and Nigeria. In March, I was at the G-8 Energy Minsters meeting in

Moscow and stopped along the way in Pakistan, in Kazakhstan and in Hungary.

The common theme in all of these discussions was the challenge that we face due to the increased demand for crude oil worldwide. As I said, these are very weighty issues and the finding of your study on global oil and natural gas has very important implications.

And, as you may know, the President has asked me to go to Iraq, where I will meet with the Iraqi oil and electricity ministers to discuss ways that Washington can provide additional support to the Iraqi government to increase oil and electricity supplies. The President has pledged the combined resources of the our government to facilitate a stable oil production environment in that country.

I have had and expect to continue to have many opportunities for dialogue with government officials in all of the relevant spots around the world. The study you are in the process of pulling together will, I hope, provide those of us who make and implement policy with a clearer understanding of the challenges presented by increased global demand for crude oil and the strategies we should consider for meeting these challenges head on.

As part of the effort to insure the collection and availability of reliable data on global oil production, demand and inventories, the United States is encouraging the free flow of information through endeavors such as the Joint Oil Data Initiative or JODI, as it is called, which is a major effort of the International Energy Forum to promote greater transparency and integrity of hydrocarbon data. It has been, that is something that has been especially near and dear to the heart of King Adbul of Saudi Arabia.

During my visit last November to Saudi Arabia I participated in the launch of the JODI database in Riyadh. The United States is one of nearly 100 countries that is participating in JODI to increase the availability of reliable data.

Ninety percent of the world's untapped conventional oil reserves are controlled by governments or state-owned oil companies, many of which are in politically unstable regions of the world. If, as some have suggested, the West is running out of sources of easy-to-reach crude oil, we must begin to plan now for ways to deal with this eventuality. And, even if we are not, the planning process is still worthwhile because it will help us identify ways to increase U.S. energy security.

Either way, we must identify competitive, affordable alternative sources of power for our homes, for our businesses and for our vehicles that will allow us to extend the existing supply of easy-to-obtain oil that much further.

To further enhance U.S. energy security the President, in his most recent State of the Union address, last January, announced the creation of the Advanced Energy Initiative to significantly increase our national investment in alternative fuels and in clean energy technologies. In its first year, the AEI calls for a 22 percent increase in funding for these important efforts. This is in addition to the 10 billion dollars that the Administration has already devoted to clean energy research since it took office in 2001.

Specifically, we will accelerate our research into technologies that hold great potential for ultra-clean and secure energy options such as commercially competitive cellulosic ethanol, advanced hybrid vehicle technologies, hydrogen fuel cells, solar and wind energy and cutting-edge technologies to burn coal for electricity production with near-zero emissions.

Over time, we expect this basic and applied research to fundamentally transform the way that we

produce and use energy in this country and to reduce our dependence on foreign energy sources.

As a complement to that, the President has also put forward the American Competitiveness Initiative to significantly increase federal funding for basic science research, particularly in the physical sciences.

As part of the ACI, the President has committed to doubling the federal government's budget for basic research in the physical sciences over the next 10 years. This includes an increase of a half billion dollars next year for the Department of Energy's Office of Science as well as additional funding for the National Science Foundation and the Department of Commerce's National Institute of Standards and Technology.

The ACI also contemplates an increase of 380 million dollars to improve instruction in our middle and high schools particularly in the math, science and technology.

All of these are very important matters to me, personally. As I have said, I think, before, perhaps even to this group, I am the child of the Sputnik generation. I went through graduation school on a National Science Foundation scholarship that

enabled me to study in graduate school and I am sure I would not have, would not have pursued that had I not, had that not been available to me. So, it is something that I feel strongly about and I am hopeful that we will be able to replicate that initiatives, those initiatives in some fashion or other.

It is important to do that if we are to remain the leader in the global economy. It is very important for our country to reinvest in the education of the next generation of scientists, of engineers, of researchers, to whom we will look for their efforts to produce the technology, the breakthroughs upon which AEI depends.

It is important that we get support, particularly for the Competitiveness Initiative, at the CEO level. Robert Stevens, the chairman and president as well as the CEO of Lockheed Martin addressed the need for the ACI quite well when he wrote recently, "Individual business leaders must do their part. Most Americans would probably be surprised to learn that more S&P 500 CEOs got degrees in engineering than in any other field. The more executives, university administrators and academics who shine the spotlight on the stakes of the technology challenge, the more we can galvanize action to meet it."

The challenges before us are daunting, but there is no reason that our country cannot meet them successfully. We have been doing that for the past 200 plus years. I have great confidence that we are on the right path. I want to thank all of you for your service on the N.P.C. I want to thank you as well for your attention for inviting me to come here today, as well as for your willingness to assist us in meeting America's future energy needs.

With that I would conclude and I would be happy to take questions if there are any. Thank you.

(Applause.)

MR. RAYMOND: This the first time there are no questions, Sam.

SECRETARY BODMAN: That is really good. I have to say that back in the days when I taught school I was always disappointed when I finished talking to a class and there were no questions, but I have learned having come to Washington that it is really a very good thing.

MR. RAYMOND: Are there any questions?

Well, thank you again, Sam, for your comments and remarks and your interest in the N.P.C.

We now turn to the report of the N.P.C. Committee on Global Oil and Gas. The Committee met

yesterday to review and approve a work plan for this study. A copy of the plan as approved is in the materials provided to you this morning. As you will see we have a structure with four vice chairs, three of whom are here at the head table with us today. The fourth, Dan Yergin, is out of the country. I will chair the group and as I noted earlier, Dave Garman is our government co-chair. Alan Kelly chairs the Committee's coordinating subcommittee and he will now provide you an overview.

Alan.

PRESENTATION BY MR. ALAN KELLY:

MR. KELLY: Thank you, Lee. Good morning, Ladies and Gentlemen. It is a great pleasure to provide this Global Oil and Gas Study status update to the National Petroleum Council members.

On behalf of the study team, I want to begin by thanking the Secretary of Energy, the Executive Committee members, the Government Co-chairs, our colleagues at the National Petroleum Council and the Coordinating Subcommittee members for their continuing support and their wise counsel.

A lot has occurred since this project has begun last year. The energy industry remains front and center in the public mind and there is much debate

about the long term direction of energy policy. Some of that debate is serious and informed, yet all too often, the discussion that occurs is sensational, uninformed or politically charged.

As a broad based independent industry body, the National Petroleum Council has a critically important role to play and adding value to any serious discussion about energy.

Building on the considerable experience of its member companies, the N.P.C. is well qualified to provide a balanced and informed perspective on strategies and action affecting the energy future for both the United States and for every country on earth.

For those of us who have worked in this industry around the world, it is abundantly clear, in the 21st Century that energy is essential to people in developed and developing countries alike. It is necessary for economical progress and vital to maintaining and raising living standards.

Public concerns about future energy supply and climate change have increased interest and awareness about energy supply options and security, prices and the potential effects of global energy consumption on the environment. However, to spite this renewed interest and awareness, only a small segment of

the public seems to fully understand some fundamental truths of about our global industry.

Starting with scale. The scale of global energy consumption is enormous, a concept that is hard for many to comprehend. The time lines involved in developing major projects can span decades, a fact that is all too often overlooked. And the capital required to maintain and grow the energy infrastructure is massive by any standards.

Of course, the people who work in this energy industry understand these fundamentals. Their firsthand experience in every aspect of the business and have displayed considerable expertise in driving innovation in their fields.

As the coordinating subcommittee chair for this Global Oil and Gas Study, I believe we have a historic opportunity to foster serious and informed discussions, enhance widespread understanding about the scale and significance of our activities and propose sound strategies and actions to meet today's challenges and to benefit future generations.

The Global Oil and Gas Study will make a positive contribution to progress in the energy sector. And I am confident we can achieve meaningful progress by drawing on our collective knowledge, and experience

to communicate the facts about energy and, thereby, help people make wise policy choices concerning its future.

In the few minutes I will revisit the origins of the study, and the critical questions suggested by Secretary of Energy Sam Bodman, describing the work that has been done, to define guiding principals, our organization structure, our proposed approach, and the next steps for this study.

Over the past 10 weeks the study leadership team has spent considerable time and effort preparing the front end design, clarifying documentation procedures, designing integrated work processes and building an efficient web based communication and support system.

The quality and commitment of the team that has been engaged so far is impressive. And with the recent expansion of the team members to include a broad cross section of resources, we are greatly encouraged.

The study origins state back to June 22 of last year, when Secretary Sam Bodman delivered another insightful speech to the annual National Petroleum Council gathering. He outlined then, he outlined then the challenges facing the oil and gas sectors, and devoted particular attention to volatile prices,

growing global demand, and the uncertainty of reserve reporting. Themes echoed today in his very interesting comments.

He also commented on the technological challenges the industry facing in deeper waters, in the frontier regions, and in harnessing the power of so called unconventional hydrogen. All these areas he noted will entail increased capital, higher risks, and extended lead times. Challenges made even more daunting when investors also face the prospect of political, fiscal or regulation uncertainly. At the conclusions of his remarks, Sam Bodman said and I quote, "There are numerous areas where the National Petroleum Council's expertise might be brought to bear."

Secretary Bodman's foresight was clearly in evidence that day because here we are, one year later, ready to launch a major study on Global Oil and Gas on behalf of the National Petroleum Council.

Last October Secretary Bodman contacted Lee Raymond to ask that the National Petroleum Council conduct a study to consider certain suggested questions. And in November, the National Petroleum Council Agenda Committee recommended acceptance of the study and in December, the members voted to launch the Global Oil and Gas Study and to establish this

Executive Committee.

Earlier this year, Executive Committee members, Lee Raymond, John Hamre, Andrew Gould, David Garman, Dave O'Reilly and Dan Yergin, proposed an organization structure to address the four key strategic dimensions of supply, demand, technology, and geopolitics and policy. In March, Lee Raymond asked me to serve as chairman of the Study's Coordinating Subcommittee. And in April, we formed a study co-leadership team to begin our work.

The first phase of this project is concentrated intensively on the project plan, which was approved yesterday, as Lee said, by the Global Committee. Today I would like to share the bases of that plan with you.

First, the impetus for this Global Oil and Gas Study derives from a letter sent last year from Sam Bodman to Lee Raymond. And I want to read the opening paragraph to you.

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

most positive outcomes."

The following three key questions were then suggested, repeated this morning by the Energy Secretary. What does the future hold for global oil and natural gas supply? Can incremental oil and gas supplies be brought online, on time, at a reasonable price to meet future demand without jeopardizing economic growth? And what oil and gas supply strategies and/or demand strategies does the Council recommend the United States pursue to ensure greater economic stability and prosperity?

With guidance from the Executive Committee, the Coordinating Subcommittee has been carefully considering the best ways to address these weighty issues and other questions we deem significant.

The first thing the Coordinating Subcommittee did was to define a clear set of guiding principals, which I would like to share with you.

They begin with a statement about what we are not going to do. Our first principal is that we are not planning to build another grass roots global energy outlook. There are many outlooks available, historic and current. And perspectives do indeed vary widely. Our preferred method going forward will be to gather reliable data, and relevant reports from all credible

publicly available sources, which is our second principal. And to analyze underlying assumptions, focusing on the accuracy and certainty or uncertainty of input. We intend to mind the data and understand the key drivers of various available energy supply and demand outlooks to the Year 2030. We will also identify and discuss realization options for increasing supply or reducing demand.

From this global assessment, we will then provide an analysis of the United States' energy supply and demand balance with a focus on opportunities and vulnerabilities.

Our third principal concerns inclusion. We plan to solicit input from a wide cross section of interested parties, including the U.S. and international industry, the U.S. and the international government, consumer and environmental groups, non governmental organizations, finance houses, consultancies, academia and others. We hope that all participants will bring their full support to this project. N.P.C. and non N.P.C. members alike. We will also encourage the appropriate task groups to draw upon other efforts underway to study energy issues. For example, the Business Roundtable Energy Task Force or the National Commission on Energy Policy.

Those of us associated with the energy industry, work in a large scale global industry and understand that the time taken to bring major projects on stream can extend over decades. Our fourth principal serves as a reminder in this area. Our approach will be to focus stable, long term conditions through 2030, avoiding short term events and steering clear of knee jerk reactions to the issue of the day.

When we conclude our project, we shall make recommendations to the U.S. Government. Our recommendations must be grounded in reality. Contributions are welcome from all those who bring practical knowledge and ideas based on sound data and science. This is our fifth guiding principal.

Let me also stress the importance of team work in this project. To achieve our goals, we must be very well aligned in all dimensions of the study. There are many cross cutting issues and interdependencies among the teams as you will hear in a moment. We designed our organization and internal communication strategy in recognition of the magnitude and complexity of this study. We must stay on task, focusing on the core questions relating to oil and gas by avoiding project creep, we will optimize our ability to deliver a final product of significant value on time

by the second quarter of 2007.

Finally, I do want to underline the imperative to conduct this study in full compliance with anti trust laws and regulations. The U.S. Government's official request for National Petroleum Council advice on important energy policy matters provides a valid business reason for competitive companies to jointly conduct this study. However, the Government's request for assistance does not provide an anti trust exemption for study participants. Thus, at the beginning of every task group or work group meeting, team leads, all secretaries will provide anti trust guidance to ensure that participants observe appropriate behaviors.

At the Coordinating Subcommittee level, an anti trust lawyer is present at all our meetings. And our document handling procedures and our work processes have all been reviewed by expert outside counsel.

On the next slide you will see a visualization of the key dimensions of this project laid out separately in the detailed scoping paper in front of you. At the center you will notice policy options. The primary objective and key point of convergence for all our study teams. As we work toward the development of these strategic options, the teams

will be asked to consider the outlook for the U.S. and world economy, and its relationship with energy consumption. World primary energy demand and its drivers including potential for energy efficiency improvements.

Oil and gas supply models. The impact of technology on oil and gas supply and on end use consumption in fuels and power generation. Key geopolitical trends and their potential impact on energy supply and demand. The potential long term impact of alternative energies that are plentiful, affordable, reliable and transportable. Environmental considerations are also in scope, as we attempt to develop a balance view of the energy and hydrocarbon future and clean fuels.

Each of the team leads yesterday expanded in detail on their approach and I will summarize those personally in a moment.

Earlier in the presentation, I commented on the organization structure in place, with the Executive Committee guiding a coordinating subcommittee and supporting task groups. The organization is shown on this slide. The co-leadership team is now in place and committed to this study and Government co-chairs are established on all committees and task groups.

During the planning phase, we have discussed at length the need to engage and include input from a broad range of resources. In addition to the National Petroleum Council membership, our leaders will reach out to include knowledgeable parties and opinion leaders through various means, such as subgroups, expert panels, workshops, focus groups, one to one dialogues, and other means.

I mentioned earlier that we have recently expanded our original Coordinating Subcommittee Leadership Team to include new members as depicted on this chart. And I am confident that the addition of the excellent individual representatives from these companies will provide great leadership and expertise and the diverse perspective we are seeking.

Joining the team will be Adam Sieminski, Chief Energy Economist from the Deutsche Bank. Kateri Callahan, President of the Alliance to Save Energy, David Slump, General Manager of Marketing at GE Energy, Dot Petno, Managing Director and Group Head of Energy at J.P. Morgan. Marvin Odom, Executive Vice President of Shell Expiration Production in the Americas. Phil Sharp, President of Resources for the Future. Guy Carusso, Administrator of the Energy Information Administration. Bill Ramsey, Deputy Executive

Director of the International Energy Association. David Seaton, Senior Vice President and Group Executive of the Flor Corporation. And you also see Marthen on there, who will be providing resources in the near future.

As the project progresses, we reserve the option to extend the team further and as specific needs arise.

As depicted on the next slide, the activities of the four task groups you will note are closely interrelated. As a result, we have designed a matrix relationship between the teams. And key individuals will be designated to work across the boundaries to maintain alignment as the task groups develop parallel recommendations.

In addition, we are organizing the study team to take care of what we refer to as cross cutting issues as shown on this next slide. We have established 12 cross cutting subgroups, whose activities will be coordinated by the task group leads, and whose findings will be shared across the whole group. And this dimension of the project will be assessing the following areas:

In supply, teams will consider refining, infrastructure, gas to liquids and liquified natural

gas, bio-fuels and renewables. In the demand area, we will consider future consumer and social trends, as well as key economic variables. The technology group has a particularly important role to play. Beyond the core work on oil and gas, there will be complimentary studies into areas such as energy efficiency, unconventional hydrocarbons, nuclear, coal, CO2 sequestration, and technology development.

Now let me briefly review the individual task group plans starting with the demand team, which will be led by Jim Berkhardt of Cambridge Energy. The demand group has developed a clear plan for achieving their goal. After defining data needs, the first substantial step will be to understand the past. To understand how the future may evolve we must understand the past. To understand, sorry, the demand team will look back and identify what brought changes to energy demand over the 1970 to 2005 period, with the principal focus on oil and gas demand. The next set of actions will be gather, review and understand key sensitivities, built into publicly available energy demand projections out to 2030. By sensitivities we mean assumptions about key variables, such as fuel efficiency, all the size of the vehicle fleet, for example. The demand group is not going to develop a

new world primary energy demand outlook, rather they plan to take advantage of the solid work already done by well respected institutions, such as the Energy Information Administration, and the International Energy Agency, and others.

The demand team plans to work closely with the EIA and the IEA to understand the variables in their demand outlooks to 2030.

After identifying and gathering and understanding of the key sensitivities of existing outlooks, the team will seek external views about how energy demand and oil and gas demand, in particular, might turn out differently. Getting input from outside of the oil industry will be critical to the success of this step. The demand group plans to seek views from automobile and airline manufacturers, power companies, chemical companies, non governmental organizations, and other relevant bodies. As noted earlier, coordination with the other task groups will take place throughout the course of their study.

The final step will be to develop a balanced and credible set of demand oriented policy recommendations for consideration by the Executive Committee. Recommendations will reflect reasoned consideration of views expressed by the members of the

demand task group and those from external sources.

In a similar vein, the supply task group led by Don Paul of Chevron, will focus on a broad range of publicly available models and projections concerned with oil and gas. This approach will include a comprehensive analysis of hydrocarbon supply and dynamics, including geologic endowment, conversion from resources to reserves, from reserves to production, from production to manufacturing, including the important subject of potential supply depletion curves. Refining and manufacturing and transportation and logistics will be rolled into the supply group in order to better integrated findings from a total supply chain perspective.

The scope of the hydrocarbon resource model being developed will include natural gas, conventional oil, heavy oil, extra heavy bitumen, shale oil and coal. From this comprehensive analysis the team will develop findings for a range of supply projections and assess outcomes for the probability shape and timing of supply curves.

Similar to the demand team, the supply team will review historic supply projections from 1970 in order to learn relevant lessons from the past. For the future the team will undertake an assessment out to

2030 of supply variables based on facts such as technological advances, geopolitical trends, environment considerations, and economics.

As a result of this comprehensive analysis and evaluation of supply options, the team will develop in conjunction with the other task groups, clear, actionable policy recommendations to influence the probability, timing and shape of future supply curves.

As with all our teams, we intend to obtain input from a broad range of resources, in this case, the Government assistance in facilitating linkages with oil ministries of key producing countries will be especially valuable.

Rob Nelson of Schlage, is heading up the technology task group. The nature of the technology task group is a little different from the other teams, is that they will be covering a wide range of issues. In addition, whereas, the other tasks can be tackled somewhat sequentially, the technology team plans to break the tasks into themes and handle them more or less in parallel. The technology themes are topics like heavy oil, deep water, unconventional gas from the supply side and automobile fuel efficiency from the demand side, to name just a few. Each theme or topic will require different expertise in order to provide

the best possible analysis and recommendations.

It is the team's intention, just as it is for the broader study, to engage with a wide range of knowledgeable people from a diverse set of companies and institutions, including oil and gas producers, service companies, technology developers, universities, and consumer groups.

I am sure you can also see that close cooperation between the technology task group and the supply and demand and policy teams will again be essential. We built this into our plans, and will ensure that any conclusions are incorporated into the other groups' work and ultimately the policy recommendations.

The technology team will be engaging with National Petroleum Council and non National Petroleum Council member companies and organizations on topics like coal, and nuclear power, to understand what technology impact is possible and likely in these areas over our study time frame. The team will not be doing original work in these areas, but it is important we cover them, to understand the potential impact on oil and gas demand.

Similarly, the technology team will be engaging with consumer groups and manufacturers to

report the impact of technology on demand through energy efficiency improvements on new fuel options. Clearly, the U.S. Department of Energy has done much work on the subjects and we will fully utilize this as well as their contacts within other countries in industry and academia.

In addition to the technology themes, the team will also develop views and reports on other critical technology issues such as time horizons for implementation of new technology, research budgets and the link between them and innovation, development of the human resources necessary to develop and deploy new technology and finally, we will look into the issues of technology penetration and usage.

Upon completion of this broad based analysis, the technology team will again develop recommendations in conjunction with the geopolitical and policy group.

Upon completion of the GM policy group. Groups of geopolitics and policies, Frank's approach initially will be to establish a series of regional geopolitical workshops under the umbrella of CSIS. The mission will to be evaluate various energy, foreign policy, investment, trade, environmental, economic, security, and other policies of producing and consuming nations with respect to managing energy resources and

consumption practices. These workshops led by scholars, will include a broader array of resources with topical expertise. Their goal is to identify key factors likely to result in sub optical realization of resource development and distribution, and recommend actions to mitigate unfavorable practices.

The approach will include a survey of literature for relevant studies and materials related to geopolitics, energy production, and consumption, bilateral relationships, diplomacy, and conflicts.

Additionally, the team will interface with the other task groups, reviewing relative materials gathered by the supply, demand and technology teams. Outreach will be extensive, including non governmental organizations, environment, diplomatic and academic communities.

The thorough process being adopted by this task group will include a review of relevant, historical energy policy decisions and the consequences of these choices. Again, we believe that learning lessons from the past can help us identify policies for the future that will be effective in supporting U.S. energy security and future economic prosperity and stability.

We envision that the bulk of the geopolitical

and policy teams recommendations will fall out of the work done by the other task groups. Consequently, we expect a very high work load towards the conclusion of this integrated study.

After several weeks of planning, we are now ready to begin the heavy lifting. The task group leaders are finalizing the selection of team resources, and setting up working sessions in the near future. Our anti trust guidelines have been completed and I am confident that our extended leadership team and legal advisors will ensure that appropriate behaviors are exhibited at all times.

We have developed a website to facilitate internal communications across the team organization and will continue to develop and adapt this site as we learn more.

We also have a plan to direct questions from third parties to N.P.C. headquarters for handling.

The teams will now accelerate the gathering and analysis of public domain data. With the help of core team members from the EIA and IEA, which will carry out an extended search of relevant data and information from multiple sources around the world.

From July 1 onward, we plan to conduct weekly conference calls among the coordinating subcommittee

team leads, with monthly face to face meetings of the full Coordinating Subcommittee membership. Milestone reviews will be scheduled with the Global Committee and its leadership, with the next review scheduled in the Fall.

A preliminary report is scheduled for circulation among Global Committee members in the first quarter of 2007. And we expect the approval of the final report by the second quarter of next year.

Ongoing communications will be essential. We expect no conclusions to be discussed or published in 2006, but we do plan to share our goals and work process widely as we solicit input from all interested parties.

As I said, we plan to direct questions about the study and its progress to National Petroleum Council Headquarters for handling. And we do appreciate the completion of the final report as not the end of this journey. Follow up communications of our findings will be required by all those involved in this study.

Let me conclude by saying that we are under no illusions about the scope, complexity, and timing of this project. We look forward very much to your support and I thank you for your attention during these

remarks.

(Applause.)

MR. RAYMOND: Thank you, Alan.

Are there any comments or questions from the membership?

I think as you can tell this is a significant task. Mr. Secretary, we appreciate your interest and your support both personally and through the Department. And we look forward to working with you in what I think will turn out to be hopefully a study that will contribute significantly to the future of the country. Thank you for being with us today, Sam. Thanks.

SECRETARY BODMAN: Thanks.

(Applause.)

(Whereupon, the Secretary of Energy left.)

MR. RAYMOND: We will now turn to administrative matters.

The first item is a note for the benefit of the members of the press, five minutes following adjournment, the study leaders will be available here at the head table to respond to any of your questions.

Now I would like to turn to the Council's finances, Claiborne Deming, Chair of the N.P.C. Finance Committee will now present the committee's report.

Claiborne.

PRESENTATION BY CLAIBORNE DEMING:

MR. DEMING: Thanks, Mr. Chairman.

For the benefit of all and especially the new members, I would like to take a minute to highlight the principals established by last year's extensive review and revamping of the N.P.C.'s contribution process.

We now send out requests for recommended contribution amounts based on the assumption of 100 percent payment. If there are non payments, the Finance Committee determines in the Fall, whether to reduce costs, draw from the continency fund, or request supplemental contributions. The Committee believes that all members should pay the contribution amount suggested and we believe that the revised formulas have had a positive affect on contribution performance as well as on the retention, in addition of new members.

2006 has already been an active year for the Council's Finance Committee. As you know from prior communications, our committee met by conference call earlier this year to review the Council's financial requirements for calendar year 2006. Based on this review, we recommended a total budget in the amount of four million, seventy one thousand dollars. This budget includes significant funds for the Global Oil

and Gas Study. To fund this budget, we recommended requesting contributions from the membership in the same amount, namely, four million, seventy one thousand dollars.

Further, the committee recommended the implication of the second of two planned supplemental requests to replenish the Council's contingency fund. These recommendations were submitted to the membership and approved by fax ballot this past April. Most members have already received their request for 2006 contributions and we are very pleased with your prompt response. The balance of the members including the newly appointed members, will receive their requests shortly.

The Finance Committee strongly encourages all members to send in their requested contributions. While we all serve at the pleasure of the Secretary, the Council is a self funded organization and it is only equitable that every member contributes his or her fair share of the costs of Council operations.

The Finance Committee met again this morning, firstly, to review the status of contribution receipts and expenditures to date, and secondly, to review calendar year '05 financial statements with Johnson, Lambert, and Company, the Council's outside auditors.

The auditors have provided the Council an opinion letter which agrees that our financial controls are sound. The calender year '05 financial statement show the positive effects of our efforts to rebuild a contingency fund.

The Finance Committee will meet again in the Fall to monitor the contribution process, Council expenditures, and the status of the continency fund.

Mr. Chairman, this completes the report of the Finance Committee and I now move that it be adopted by the Council Membership.

MR. RAYMOND: I second the motion. Are there any comments?

All in favor?

(Whereupon, a chorus of ayes was heard.)

MR. RAYMOND: Opposed?

Thanks, Claiborne.

Our other administrative report this morning is from the Nominating Committee. Ray Hunt chairs the Nominating Committee and will now present the committee's report.

Ray.

PRESENTATION BY RAY HUNT:

MR. HUNT: Thank you very much, Lee.

Yesterday the Nominating Committee met and

agreed upon its recommendations for the membership, for the N.P.C. officers, the chairs and the members of the agenda and the appointment committees and the five at large members of the N.P.C. co-chairs coordinating committee.

And Mr. Chairman, I would like to put this into a single motion.

On behalf of the Committee, we would propose the following: N.P.C. Chair, Lee Raymond, N.P.C. Vice Chair, Rich Kinder, for the Agenda Committee, Bob Catell, Joe Foster, Bob Fri, Ray Hunt, Dave Lazar, John Miller, Mike Morris, Jim Mulva, Dave O'Reilly, Dan Yergan, with Larry Nicolas serving as chair.

With respect to the appointments committee, we would recommend George Alcorn, Bob Best, Luke Corbett, Bill Fisher, Jim Hackett, John Hess, Don Mason, Bobby Parker, Bob Rose, Lou Ward, with Bob Palmer serving as chair.

In addition, we would recommend as the five at large members of the Co-Chairs' Coordinating Committee, Paul Anderson, Bob Keating, Andrew Liveris, Bruce Smith and John Wilder.

Mr. Chairman, the completes the report of the Nominating Committee and we would put that in the for of a motion.

MR. RAYMOND: Second.

Any nominations from the floor?

All those in favor?

(Whereupon, a chorus of ayes was heard.)

MR. RAYMOND: Opposed? I guess I can't oppose it, can I, Ray? Motion carried.

Before the final item on our formal agenda, let me ask if any Council member has any matter that they would like to raise at this time? And is there any non member who would like to be recognized?

Our last item is a sad one, which marks the passing of Jim Emison, the distinguished Council member for over 30 years. Ron Erickson will present a memorial resolution in Jim's honor.

Ron.

PRESENTATION BY JIM ERICKSON:

MR. ERICKSON: Thank you, Lee.

Mr. Chairman and Members of the Council, I am honored to read a draft of the memorial resolution for Jim Emison, a fellow Minnesotan, a friend for very many years and indeed a member of this council, as Lee said, for over 30 years.

The resolution reads as follows:

The members of the National Petroleum Council were deeply sadden by the death of their distinguished

colleague, James W. Emison, on December 28, 2005. Jim was born in Indianapolis, Indiana, and graduated from DePaul University in 1952. He was founder and owner of Western Petroleum Company in Eden Prairie, Minnesota.

Jim served as an officer in the United States Marine Corps and he was active in many industry organizations, including the American Petroleum Institute and its 25 year club.

In 2003, he was awarded an Honorary Doctor of Humanities Degree by his beloved DePaul University. He was an active and loyal alumnus for more than 50 years.

In addition to his dedication to his university, and his petroleum related activities, Jim worked on behalf of many civic organizations in Minnesota and nationally.

Jim was an active member of the National Petroleum Council for over 35 years. During his membership, Jim involved himself in the work of numerous study committees and served on the Council's Appointment Committee.

Therefore, with sincere admiration for his achievement and contributions to the industry and the Council, and with a great sense of loss, be it resolved on this 21st Day of June, 2006, that the deepest sympathy of the Members of the National Petroleum

Council be extended to his widow, Jane, and to his family.

It is further resolved that this resolution be entered upon the permanent records of the Council and that an appropriate copy, thereof, be delivered to his family, as a remembrance of the Council's esteemed and deep appreciation.

Mr. Chairman, that completes the reading of the resolution.

MR. RAYMOND: Thank you, Ron.

Ladies and Gentlemen, I propose that we signify our adoption of this resolution in memory of Jim by rising for a moment of silent prayer and reflection.

(Silence)

MR. RAYMOND: Thank you very much.

Do I have a motion for adjournment? Second?

All those in favor?

(Whereupon, a chorus of ayes was heard.)

MR. RAYMOND: The meeting is adjourned. Thank you all for coming. We look forward to an interesting year.

(Whereupon, at 9:50 a.m., the meeting was concluded.)

REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before:

DEPARTMENT OF ENERGY

NATIONAL PETROLEUM COUNCIL

In the Matter of:

GLOBAL OIL SUPPLY AND DEMAND ISSUES

were held as herein appears and that this is the original transcript thereof for the file of the Department, Commission, Board, Administrative Law Judge or the Agency.

Further, I am neither counsel for or related to any party to the above proceedings.

Debra Derr
Official Reporter

Dated: JUNE 22,2006