DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
OUTER CONTINENTAL SHELF
POLICY COMMITTEE MEETING

Wednesday, October 31, 2001
Wyndham Emerald Plaza
402 West Broadway, San Diego, California
8:30 O'clock A.M.

REPORTER'S TRANSCRIPT

Before Bonnie G. Breen, Certified Shorthand Reporter
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Wednesday, October 31, 2001
8:30 O'clock A.M.

APPEARANCES:

COMMITTEE MEMBERS

Donald F. Oltz, Jr. (Chairman)
Patrick S. Galvin
William H. McLemore
Jack C. Caldwell
Thomas Skinner
S. Cragin Knox
Lawrence C. Schmidt
John C. Harmon
Donna D. Moffitt
Nan Evans
Ronald P. Gilius
Bruce F. Vild
Thomas M. Felvey
Linda R. Shead
J. E. Carlton, III
Richard E. Gutting, Jr.
Earl R. Sims
Mark Keller
George M. Banino (Vice Chairman)
Paul L. Kelly
Jerome M. Selby
George N. Ahmaogak, Sr.
Ramona Schreiber
Mark Bellis
Nancy Johnson
Robert W. Smith
Anne N. Miller
Thomas R. Kitsos
Carolita U. Kallaur
Walter D. Cruickshank

ALSO APPEARING:

Brian Baird
William W. Schroeder
Ralph V. Ainger, Jr.
Henry Groppe
Paul E. Martin
Jeffrey Beale
Chris C. Oynes
J. Keith Couvillion
Maggie Ahmaogak

PROCEEDINGS

MR. OLTZ: We are taking notes here for a while by hand; so if you speak this morning, would you speak crystally clear, announce who you are so we can get it into the record. And some time later today, we are going to have a full-fledged tape in the room; but, right now, be sure that you enunciate clearly.

Before I give my introduction, I would like to invite the California resident, Brian Baird, who is here representing California.

WELCOME AND OPENING REMARKS – BRIAN BAIRD

MR. BAIRD: Thank you, Mr. Chairman. It's a pleasure to be here today. I'm with the State of California, the Ocean Program Manager for California. I work for the Secretary of Resources. I would like to welcome you all to California and specifically down here to San Diego. Something of interest, last Tuesday about this time, I was welcoming the Coastal States Organization at the Scripps Institution of Oceanography, which that director says is "The Institution of Oceanography." That may be subject to some debate by others throughout the United States, but we did have a great meeting. And it's pretty clear that California, specifically, San Diego, is a good place to have source meetings and we welcome you.

Aside from three days of meetings we had on coastal management and talking about a wide variety of subjects, some of our delegates were able to go kayaking along the La Jolla coast, going into sea caves, seeing things like leopard sharks, garibaldi, and really got a sense for what we have here in California. We toured the San Elijo Lagoon, which is one of the many lagoons and wetlands that is currently under restoration through the Southern California Wetland Restoration Project. Of course, we saw examples of some of the erosion issues we have down here in Southern California.

I'm glad to hear you all had a similar experience yesterday. You did go down to Scripps, and you learned about some of the I think long-term research programs, at least appeared you did, CalCOFI program, some of your MMS programs; but also we saw much saw of the shoreline issues. It's one of many issues we deal with here in California.

Looking at this agenda, I look forward to a productive and informative meeting. I know California hasn't been here as often as you might like. We will try to do something about that. Welcome to California and we are pleased to be here.

WELCOME AND OPENING REMARKS – CHAIRMAN DONALD F. OLTZ, JR.

MR. OLTZ: Thank, you Brian. I am told to speak closely into the mike. I would like to welcome you all to San Diego, also. I have lived in Southern California for a good piece of my life, and I am pleased that the staff and the California people arranged to have a 5.1 quake last night for us. I didn't know whether it was something related to the war or something just going on, construction in the area; but I had forgotten what it was like to get rolled around in bed.

Also, it being Halloween, I would like to extend my appreciation to most of you for not wearing your masks this morning. It is a blue moon day also; so the staff has really gone about their normal activity of trying to make us the most.

With that, I think it would be appropriate if we could quickly just go around the table. Sometimes the complexion of the committee changes a little bit, and I would like to start with Linda up in the northwest corner. If we just briefly let people know who you are and where you are from.

MS. SHEAD: My name is Linda Shead, Executive Director of the Galveston Bay Foundation. Galveston Bay is the largest estuary on the Texas coast and second-most productive in the country.

MR. McLEMORE: I'm Bill McLemore. I'm State Geologist of Georgia.

MS. MILLER: My name is Anne Miller. I represent the Environmental Protection Agency.

MR. KELLER: Good morning. I'm Mark Keller with Chevron-Texaco standing in for Doug Lanier, who will be the new natural gas chair.

MR. VILD: Bruce Vild, representing Rhode Island.

MS. JOHNSON: Nancy Johnson, Department of Energy, and I'm representing both Mitch Baer and John Pyrdol today.

MR. CARLTON: My name is Jim Carlton. I'm representing major oil. I'm replacing Ed Langtry, who has moved on to Norway. I work for Phillips Petroleum Company of Houston, land negotiations management for Gulf of Mexico.

MR. KNOX: Cragin Knox, State Geologist for Mississippi. Our office is part of the Mississippi office of environmental law.

MR. SIMS: I'm Earl Sims. I'm new to this group. I'm representing the Independent Petroleum Association of America. I'm based out of Houston, Texas.

MR. HARMON: I'm John Harmon with the New York State Department of Environmental Conservation.

MR. GUTTING: I'm Dick Gutting, President of the National Fisheries Institute. I'm representing fishing rights.

MR. BAIRD: Brian Baird, California.

MR. SCHMIDT: Good morning. Larry Schmidt, New Jersey Department of Environmental Protection.

MR. KELLY: Paul Kelly with Rowan Companies in Houston representing the Offshore Support Industry.

MR. SELBY: Jerome Selby, representing local government from Kodiak, Alaska.

MR. BANINO: George Banino with Earth Tech in Albany, New York, representing the Marine Mining Industry.

MR. OLTZ: Don Oltz, State of Alabama.

MR. KITSOS: Tom Kitsos, Acting Director.

MS. KALLAUR: Carolita Kallaur, Associate Director for the Offshore Minerals Management Program.

MR. CRUICKSHANK: Walter Cruickshank, Associate Director, Policy and Management Improvement.

MR. SCHROEDER: Will Schroeder with the University of Alabama and Chair of the OCS (Outer Continental Shelf) Scientific Committee.

MR. FELVEY: Tom Felvey, representing Virginia.

MR. GILIUS: Ron Gilius with Pennsylvania Department of Environmental Protection.

MR. AHMAOGAK: George Ahmaogak, representing local government, Mayor of the municipality up in the North Slope that hosts a lot of offshore land.

MS. SCHREIBER: Ramona Schreiber, Department of Commerce, National Oceanographic and Atmosphere.

MR. SKINNER: Tom Skinner, Massachusetts Coastal Zone Management Office.

MR. GALVIN: Pat Galvin, State of Alaska, Governmental Coordination.

MR. BELLIS: Mark Bellis, Department of Defense. I would like to give an update. Jerry Henson is back to full duty. At this time, he didn't feel comfortable traveling out here. Anyone who would like to read an article in Washingtonian magazine to hear his story. It brings a personal focus to security efforts we now are going through.

MS. EVANS: Nan Evans, State of Oregon, Department of Land Conservation Development.

MS. MOFFITT: Donna Moffitt, North Carolina. I'm with the North Carolina Department of Environment and Natural Resources.

MR. OLTZ: There are a total of 33 voting members on this committee. The quorum is therefore 17, and there are 23 voters present. So we have a quorum.

I think the next order of business would be to introduce the Acting Director of the Minerals Management Service, who has been acting so long that we look to him as the Director of Minerals Management. Dr. Tom Kitsos, welcome, sir.

DIRECTOR'S REMARKS – THOMAS R. KITSOS

MR. KITSOS: Thank you, Chairman Oltz. I would like to thank you all for coming to this meeting. We have a full agenda. I would like to highlight some of the latest developments of MMS and the department.

In the current 5-year leasing program, we had a very successful western Gulf sale in August raising over $165 million in what was the fourth largest number of bids submitted in the last decade. This is the first time we have offered tracts beyond the United States EIS beyond 200 miles. We actually had seven bids on those tracts, and they are currently being evaluated with respect to the Eastern Gulf of Mexico, an area that had not been offered for sale since 1988.

This past July, the Secretary of the Interior, Gale Norton, reduced the size of the sale to ensure that no leasing would occur directly offshore within 100 miles of Florida's coast in response to concerns reflected by the State of Florida, but the sale is going to be held. It has been reduced in size from 5.9 million acres to 1.5 million, but it is expected to contain as much as 1.25 trillion cubic feet of national gas at 185 million barrels of oil.

Last Friday, the Secretary approved the publication in the Federal Register of the final notice of sale for 181. It will occur on December 5th in the central Gulf. We continue the planning process of sale 182 to be held in March of next year. That sale will be the last in the current 5-year plan.

And as we look back on the current 5-year plan, however, with a couple sales to go, we can see that a number of sales that set records for the number of bids that were submitted, we had the only billion dollar sale of the past decade during this 5-year program. We are having the
first sale in the eastern Gulf in a long time.

We have clearly had explosive growth in deep water leasing and production, and the number
of active leases have increased by over a third, by 33 percent.

Now, the administration looks forward to the new 5-year leasing program for 2002 to 2007. We recently issued a proposed program for the new schedule. It contains 20 proposed sales in seven planning areas. These areas would make available for the nation as much as 22 billion barrels of oil and 60 Tcf of natural gas.

In this new program, we will continue our policy of annual sales in the western and central gulf of Mexico, as well as proposing sales in the eastern gulf, two sales in the eastern gulf; but they will be in the same size, the same reduced area as the December sale.

In Alaska, we are proposing three sales in the Beaufort Sea, in addition to two in the Chukchi and two in Cook Inlet. We will also try to implement a new concept in Norton Basin targeted for producing natural gas for coastal communities in Alaska. This is in response to local requests from energy-starved communities in that area.

Oil and gas resources of the OCS and future leasing activities are essential elements in meeting the goals set forth in the President's National Energy Program. Currently, OCS production accounts for about 25 percent of our domestically produced oil and natural gas and now the single largest supplier in our nation, surpassing Saudi Arabia.

The proposed 5-year program presents our plan for obtaining the energy resources this nation needs to keep our economy moving to provide economic opportunities for each and every American. This is the sixth 5-year program since enactment to the amendments of OCS Lands Act of 1978. It is based on consideration of only the areas of the OCS that have not been withdrawn from leasing by congressional moratoria or by presidential withdrawals through the year 2012.

We are also going to have a multi-sale EIS process for the central and western Gulf of Mexico. We will have an EIS that encompasses actually nine sales. Although there will be one document, there be will be a discreet, stand-alone analysis for a typical sale for each of the two planning areas. Scenarios and analyses for each planning area will be detailed as if separate EISs have been compared. Then, in a cumulative analysis, two will be analyzed together.

Another new initiative in our program will be to use the same multi-sale EIS. And speaking of the Beaufort, any day now, we are expecting the first production from Northstar to come onboard. It hasn't started producing yet, but when it does, and it could be a matter of hours or days, this will be the first oil from federal waters off of Alaska by BP in its Northstar project. This is the first OCS production in federal waters since offshore leasing began in Alaska in 1976.

This project is a joint federal/state unit located about 12 miles northwest of Prudhoe Bay in the Alaska Beaufort Sea and includes three federal and five state leases. About 16 percent of the Northstar reserves are allocated to federal leases and we estimate will bring in approximately $120 million in federal royalties in future years.

Federal leases are also in the 8(g) zone for Alaska, which means the state will get 27 percent of the revenues from that production. Another first for this project is that the pipeline transporting oil to shore is the first buried subsea pipeline in the Arctic to be used for full-time production. The pipeline is buried 7 to 11 feet below the sea floor to avoid ice impacts and has three state-of-the-art systems to monitor the entire offshore portion of the pipeline. And I know that when we get into our regionality discussions tomorrow, John Goll would be happy to answer any further questions you might have on that.

MMS is also involved in a proposal before the President right now about filling the strategic petroleum reserve, as some of you may know, we are able to take some of our royalties in kind. And we may be using some of that oil to fill the strategic petroleum reserves in conjunction with the cooperative agreement with the Department of Energy. We will probably have more about that at the next meeting.

I would like to close on a personal note. This is my last meeting as a member of MMS. In what has to be the worst kept secret in recent memory, I have accepted the position of Executive Director of the Commission on Ocean Policy under Admiral Jim Watkins with the 16 members of the commission. Our Paul Kelly is on it. Jim Coleman, the chairman of our science committee, is a member of the commission.

I begin in my executive director position on November 13 in Washington, which is the first day of hearings that the commission will have. This has been a difficult decision for me. I have enjoyed my years at MMS immensely. The opportunity was raised when this commission was established by legislation last year, and I thought long and hard about it.

It does give me the opportunity to return to some of the other ocean issues that I was involved with when I worked on Capitol Hill on a congressional committee with the OCS program. Its relationship to the Coastal Zone Management Program and to coastal states and to environmental protection of ocean and coastal resources will be a major part of the commission's work. So my experience at MMS I hope will be valuable to the commission and OCS program will have a number of knowledgeable people there on the commission and on the staff.

I had the opportunity to talk with the Secretary on Tuesday evening when the final phone call came in. She couldn't have been more gracious. She is a rather extraordinary woman, and I have enjoyed serving under her. And she is

currently on her way down to New Orleans to visit some offshore platforms and to talk with our regional office and other interior department employees in the Gulf, showing her commitment, I think, to this program. This OCS Policy Committee is very important to the department.

Jerry Henson, member of the defense department and liaison, was almost killed at the Pentagon; and the story of his rescue is really rather extraordinary, as has been indicated.

We have not met since the terrorist attack in September. I think that the economic security and the energy stability of this nation clearly is one variable that should come out of all of that. I know MMS and the men and women that I have had the pleasure of working with over the years are committed to it, and I hope this committee continues to advise the Secretary and the Director, whoever that may be, as wisely as you have over the years.

I appreciate the time here. And I think that Carolita would like to say something.

ASSOCIATE DIRECTOR'S REMARKS – CAROLITA U. KALLAUR

MS. KALLAUR: We are going to miss Tom a great deal. I think it's been a wonderful opportunity to work with him. I think those of you familiar with Tom's background realize he's an ideal choice to provide for the future ocean policy of our nation.

I want to mention a couple things. There is a handout in today's materials dealing with, it is a mouthful, but it's E-Government Transformation Foundational Study. The reason I call it to your attention, it is going to affect all of the stakeholders who are in this room.

We had contracted out with Booz, Allen & Hamilton last year to do a foundational study to look at our current IT architecture. They have reduced this to a study we are using right now with the Office of Management Budget to secure funding, funding quite significant. It's in the range of $80 million over the next four or five years. We have an uphill battle.

So far, OMB has been very supportive of the initiative, I think because of the fact we have so much dealing with the private and public sector. We are very optimistic we are going to be able to secure this funding for this fiscal year.

We are going to be looking at our business processes, clearly what our business processes are where we interact with all of you. So I wanted to give you a heads-up to this initiative because we are probably going to be getting in touch with you as we review different permitting, other times we work with states and local government.

Clearly you are going to have to be a part of it, because we want to eventually move to a web-based environment so we are more paperless. But clearly, in order for us to receive information from you or send information to you, we have to have compatible software. And you all have to agree with the way in which we are going to be carrying on the work.

This is a major initiative for the offshore program and really didn't have an IT focus. It has more of a focus on the way in which we do our work, but clearly IT, in the way they talk at OMB, would be the neighbor. I feel like I have lost the English language when I have to talk to these people about it. I think it is a very important initiative. I want to call your attention to it.

I also want to follow up on some of the remarks that Tom made on the terrorist incidents that occurred in September. I wanted to mention we are working very closely with industry and the Coast Guard, FBI, other organizations on trying to make sure that offshore facilities are secure and also that people who work offshore are safe. And one thing I think you are going to hear in the future months is, when they talk about homeland security, there is a significant focus on our energy vulnerability.

I was surprised to learn we are currently importing 700,000 barrels a day from Iraq. Clearly that adds to instability. People are beginning to look at our domestic resource base. And clearly OCS is the main component of oil and gas potential on federal land.

There is going to be a renewed focus on domestic development along with conservation because clearly we are in a very insecure state right now. So any advice we can get from this committee as we move forward to make sure down the road we are prepared I think would be very useful.

The one thing I notice, I think we in Washington are much more focused on this maybe because of Anthrax and everything else that is going on. I'm happy the rest of the country seems to be able to go about its business a little more than we can. We won't let the terrorists succeed. Thank you.

MR. OLTZ: Paul Kelly wanted to say a few words.

MR. KELLY: Yes, thank you, Mr. Chairman. Paul Kelly, Offshore Support Industry. Since you are hearing the first public announcement of Tom Kitsos' appointment as executive director of the President's Commission on Ocean Policy and a press release will soon be going out in the capitol concerning Tom's appointment, I have been asked by the Commission to extend the official welcome to Tom. And it is indeed a credit to him that the selection of Tom as the Executive Director was unanimous and really reflects the opinion of all the commissioners, that whoever has dealt with Tom over his many years on Capitol Hill and then with MMS, everyone has felt like he was a fair, balanced person. And I think this is reflected in this decision.

So, Tom, on behalf of the commission, we welcome you aboard, although I have mixed feelings about this personally, because I hate to see us lose you at MMS.

MR. OLTZ: Thank you, Paul. If I could, I would like to make remarks on behalf of the committee. Tom, that is a broadside I didn't expect. I hadn't heard. Some good people from this committee have gone on to some very interesting positions. We heard Jimmy Palmer was appointed director of EPA's Region 4 in Hot Atlanta. On behalf of this particular committee, let me extend our appreciation to your leadership and to all of the contributions you have made both to this committee and to MMS. Congratulations.

MR. KITSOS: Thank you, Mr. Chairman.

MR. SCHROEDER: Will Schroeder with the Science Advisory Committee. Tom, on behalf of the Science Committee, congratulations as well. You are right, the rumors were on the street about this announcement. It comes at a time when we appreciate your support and the support of your office of the endeavors the Science Committee is charged with. We wish you well and look forward to playing any constructive role we can with the commission. Best of luck to you.

MR. OLTZ: Let's give Tom a hand here. We wish you well, sir. (Applause.)

STATUS REPORT: RESOLUTIONS PASSED AT MAY 2001 MEETING – CHAIRMAN OLTZ

MR. OLTZ: Our next item on the agenda has to do with the status report. And what I would like to do briefly is cover some of the things that we did at the last meeting and then turn the meeting over to Ralph Ainger, who will talk about the 5-year plan.

One of the things we tried to do at the last meeting was to involve more fully all of us on this committee. You recall that we did an energy demand census kind of thing in a round table sort of way looking at from each state what their energy situation was. And that was sort of based I guess on what was going on in California at the time, but it gave us an opportunity to construct a matrix of states' activities in the energy field.

And the staff has prepared this. I think you have a handout from them. I am not going to go through each of the states' comments, but you should have in your packet somewhere a listing of the comments of each of the states, some of which are kind of interesting. And, actually, the comparison between states is very interesting. I just bring that up and let you have a chance to look it over.

And some of the thinking when we did this initially, when we stimulated this, was that maybe this was something that the OCS Policy Committee might be interested in doing in a more formal fashion where we would actually look at how the states are reacting and how they are handling the energy situation in their states.

Other things that we do in this committee is pass resolutions. And we are all members of other committees that also pass resolutions. And sometimes one wonders what happens to those resolutions. They usually afford some action item at the base of the resolution that says this will be transmitted to somebody or will be given to someone for some kind of action, and we never really know what happens to those.

So what we decided we would do was follow up on the resolutions that we have made in the last meeting and just see where all of that went to. We pass our resolutions on up the chain at MMS to the Secretary. And last time we made a resolution that had 12 recommendations in it, that was based on our natural gas report, and the Secretary has responded to each of those 12 recommendations. And I, again, think you have got copies of all that.

I don't know that it would be timewise here to go through all of them, but I would point out at least one. And I think, George, you wanted to say something about a second one, a response to Item Number 6 in that resolution, which had to do with funding for additional education and outreach regarding the leasing program. The response from the Secretary is as follows:

The department is interested in working with the committee on developing education and outreach opportunities. Please work with them, MMS, possibly as part of future community deliberations to consider specific initiatives.

I was impressed. I think that we have here a directive, something that this committee would probably need to sit down and talk about, maybe at the round table tomorrow, but this is a request from the director saying basically we want to deal with education and outreach.

Is this committee interested in being a part of that? George, you want to speak to a second response.

MR. BANINO: Yes, thank you, Don. In another response to our resolutions, our recommendations, specifically recommendation number one dealing with moratorium, the Secretary comes back and states very clearly that the administration supports the current withdrawals on congressional moratorium; but she does add that, in view of the nation's long-term energy needs, if there are affected states and local officials that have an interest in discussing issues concerning energy and environmental balance, which may relate to restricted OCS areas, the department would be willing to enter into those discussions. And then she adds: We will look forward to the committee's assistance in facilitating any possible future endeavor.

She's not asking for us to necessarily recommend any area, but if that opportunity arose, she would be interested in our assistance in that regard. I don't see that this is a directive in contrast to a response regarding education, but I do see here that she is looking for assistance. And this also is something we may want to discuss in a round table to see if there is anything that we might want to do in response to this request. Thank you.

MR. OLTZ: In one of our other resolutions we resolved in support for the United Nations Convention on the Law of the Sea, her response was that she had forwarded this advice to the State Department and the Defense Department for consideration of an administration position. I don't know I'm aware whether that has gone any further.

MS. KALLAUR: We are in the process of preparing those letters.

MR. OLTZ: We also had a resolution in regard to coastal impact assistance. And she appreciated the strong position the committee has taken on this matter. And of course the committee will accept, I think, probably full responsibility for being the initiators in that process.

She points out: As we will have followed this coastal assistance through Congress, she points out this raises policy and fiscal issues, which will need further analysis. She states: I will consider this advice as the administration formulates a position.

Now, the initial coastal impact assistance that came through Congress last year, the moneys for that are being distributed to the states are going to be effective I think I heard November 1st. Mr. Caldwell, is November 1st the date when the money is to be released for the C.F. program?

MR. CALDWELL: Within a few weeks on the states.

MR. OLTZ: Within a few weeks? I had heard a few days. I think it's important that we get this kind of feedback. It is interesting to note we are having the ear of the Secretary and that we have a way of getting information to her. That is the strength of this committee, I think.

Any other comments on that? Any comments on responses that anybody on the committee wishes to make?

Mr. Ralph Ainger is a traveling buddy of mine. We were both in Khuzistan, I think since we both enjoyed the climate and hospitality and cultural aspects of Khuzistan. He has been to several other "stans." I guess he's managed to stay out of Afghanistan. Ralph is a long-time MMS employee. He is chief of the Leasing Division. I don't think at the time that we were traveling in Khuzistan he was looking for leasing.

MR. AINGER: No.

MR. OLTZ: We did enjoy good times. Ralph, welcome.

5-YEAR OIL AND GAS LEASING PLAN (2002-2007) – RALPH V. AINGER, JR.

MR. AINGER: Thank you, Mr. Chairman. Good morning. My task this morning is to provide a brief update on the next 5-year program over the years 2002 to 2007. I know many of you are 5-year program veterans, but some of you may not be familiar with why and how we prepare the 5-year program. So I thought I would begin today on a little background of the process itself.

Although we really enjoyed doing it, we actually prepared the 5-year program because we have to.

Section 18 of the OCS Lands Act requires the Secretary to prepare and issue a 5-year program. And the preparation of that program itself is governed by some detailed procedures that are also in Section 18. Of course, like most major federal programs, we are also directed by the requirements of the National Environmental Policy Act.

Section 18 also provides detailed steps in the process that we have to follow.

Specifically, we combine the process with a request for information. That's followed by a 45-day comment period. Once we receive those comments, we issue a Draft Proposed Program, which is followed by a 60-day comment period. The next step is the issuance of a proposed program and the draft EIS, and that is where we are at this particular process, and we'll have more details about that. That is followed by a 90-day comment period. After that, we issue the proposed final program and final EIS. There is then a 60-day waiting period. After that, the Secretary may approve the program.

Much of the preparation takes the form of a comparative analysis. And Section 18 requires that the timing and location of leasing be based on a number of considerations in all 26 planning areas.

We have to consider the geographical, geological, and ecological characteristics; the developmental benefits and environmental risks; regional and national energy needs; other uses of the sea and seabed; industry interests, of course; and the laws, goals and policies of the affected states; environmental sensitivity and marine productivity; and other relevant environmental and predictive information.

This comparative analysis facilitates the Secretary's balancing decision. Of course, we also consider the comments of interested and affected parties, which often provides some very substantive information and helps us achieve that decision.

Section 18 also requires the Secretary's decisions on the timing and location of leasing to strike a balance between the potential for discovery of oil and gas and potential for environmental damage and adverse impact to the coastal zone.

Now, for this 5-year program, it's either made more complex or more simple, depending on your point of view, by the recent presidential leasing withdrawal. In 1998, President Clinton under Section 12 of the OCS Lands Act withdrew all or portions of 10 planning areas for consideration.

In Alaska, we cannot consider the North Aleutian Basin; on the West Coast: Washington, Oregon, Northern California, Central California, Southern California; on the East Coast: The north Atlantic, mid Atlantic, south Atlantic, Straits of Florida, and the Gulf of Mexico, a large portion of the eastern Gulf.

These withdrawn areas are generally those that have been subject to long-standing moratoria. So not a significant amount of momentum was lost in the 5-year program. But for this particular withdrawal, it covers the tenure of, not only this upcoming 5-year program, but the next one also, to the year 2012.

The net effect of this withdrawal on the 5-year program is that the Section 12 withdrawal trumps the comparative analysis provision for many of the planning areas. So we are not required to consider them in preparing this 5-year program.

Now to the heart of the matter here, where we are in this 5-year program. We began this process in December of last year with a request for information and comments. We received over 10,000 comments. All except about 100 were variations of a form of an E-mail expressing general opposition to OCS leasing.

We considered those comments and prepared the comparative analysis focusing on the available areas in the Gulf of Mexico and Alaska.

And on July 23rd of this year, we issued the Draft Proposed Program, which considers leasing in eight planning areas, five of which are off Alaska, three in the Gulf of Mexico. That was followed by a 60-day comment period, which closed on September 21st.

We heard from a number of individuals and institutions. Over 9,000 individuals' comments were received. Again, nearly all of them were E-mail form letters opposing the program. There were 23 comments from federal, state and local governments expressing a wide variety of views.

There were 18 comments from special interest groups, mostly in opposition to the program, particularly in Alaska. There were nine companies submitting comments concerning Gulf of Mexico leasing.

Five companies submitted comments concerning leasing in Alaska. Five oil and gas industry associations submitted comments on various aspects of the Draft Proposed Program. And the proposed program itself provides a summary of all these comments. And if you want to read them all, they are available on our website at www.mms.gov.

After we considered the comments in the Draft Proposed Program, on October 26, last week, we issued the proposed program and the draft EIS. It focuses on those same eight planning areas contained in the Draft Proposed Program; and we are now in the 90-day comment period that will end in January of next year.

In April, we proposed to issue the final program and final EIS, which will be followed by a 60-day waiting period. And then in June 2002, the Secretary may approve the next 5-year program, which we hope to take effect on July 1st, 2002.

What's in the proposed program? Well, it is the same thing that was in the Draft Proposed Program. Essentially, we proposed three Beaufort Sea sales, one in 2003, one in 2005, one in 2007.

One minor technical correction from the Draft Proposed Program, we inadvertently included 23 spring lead blocks that have been deleted now in the proposed program.

We also have proposed two Chukchi/Hope Basin sales, one in 2004, one in 2007. We have provisions for a special sale in the Norton Basin in 2003. It is made special by the fact that, before we will proceed with the sale proposal, we will put out a request for nominations from industry to see if there is actual interest in the Norton Basin; and, based on that, interest may proceed with the sale there.

The proposed two Cook Inlet/Shelikof sales, one in 2004, one in 2006; the present five western and five central Gulf of Mexico sales, two eastern Gulf sales, which will be in the same area as the present configuration for Sale 181.

Mr. Chairman, that is all I have on this 5-year program, but I'd be happy to entertain any questions anyone has.

MR. OLTZ: Are there any questions for Ralph? Mr. Kelly.

MR. KELLY: Paul Kelly, Offshore Support Industry. Ralph, would you go back to the last line just before the thank you, please. I just have two comments on the proposed program. And I think all of us around the table are aware of the limitations placed on the Minerals Management Service.

In organizing and starting procedures for the development of the 5-year plan, I just wanted to point out that we have here five western and five central Gulf of Mexico sales planned. These are still highly prospective areas in the deep water. The Gulf of Mexico has become a marginal play in terms of activities on the shelf; although, we are launching an initiative to bring about more deep drilling for gas on the shelf.

If we look at the eastern Gulf, if the same acreage as Sale 181 is going to be included in the sales in 2003 and 2005, as the Independent Petroleum Association of America points out, that acreage covers only 3 percent of the eastern Gulf.

Hopefully we will bring first production on from the Beaufort Sea. Yet it has been a long time from coming, and no one is certain how successful we will be in that regard. With respect to most of the Bering Sea, we have not been very successful up to date in initial rounds of drilling in that area.

Hopefully, perhaps with new technology, we might be more successful, for example, in finding gas in the Norton Basin. The Cook Inlet/Shelikof sales have always been subject to a lot of controversy in Alaska. It has been particularly difficult to lease much acreage in the Shelikof Strait.

So I just want to point out that, number one, I think the nation is making a mistake if it's limiting its offshore leasing program for the next potentially 12 years or the next two 5-year plans going out to 2012, considering the dangerous situation we face with respect to all the events that relate to the terrorist attack on America and terrorists' networks and the complexity of political issues this causes in the Middle East with countries like Saudi Arabia and Iraq and our suppliers from the Middle East.

Secondly, I would like to say that, obviously, it goes without saying that the program is not balanced as called for under the Outer Continental Shelf Lands Act as amended in 1978, which calls for balance of costs and benefits among the regions of the nation. The program is still primarily oriented toward the Gulf of Mexico and with the exception of the Alaska not a great deal of participation from other regions of the country. Thank you.

MR. OLTZ: Thank you, Paul.

MR. AINGER: One other note, Mr. Chairman. In an effort to shift the load from my office to yours, I have sent copies of this to everyone on the committee. You may not have gotten them yet because, between the time we put them into the mailroom and went out, they closed our mailroom for several days for Anthrax screening. They have been deleted. You should have them.

MR. OLTZ: Thank you.

MR. CARLTON: Jim Carlton, Major Oil. I would like to offer support for Mr. Kelly's comments. I think he's very much on target. I would like to add one or two other comments with respect to the eastern Gulf of Mexico of Sale 181 and the sales proposed in 2003 and 2005.

With the limitations that we are looking at with only 256 blocks available, I certainly want to stress that it is very key that we remain fluid and adaptable and be able to add additional acreage in that area. And, hopefully, that will stay in the forefront, particularly in light of the way the world looks post September 11th.

MR. OLTZ: If I might remove my chairman's hat for a minute and put my Alabama hat back on, allow me to bring us down to a little sharper focus in our regional area in the eastern Gulf of Mexico. The eastern Gulf is not Florida. A good piece of Alabama offshore is in the eastern Gulf planning area.

At the time all of this agitation over Lease Sale 181 started, I visited the delegation in Washington to try to make sure that this didn't become a Florida sale, which as soon as the media got a hold of it, of course, it became a Florida sale.

There are some folks in Alabama that are wondering what happened in the sense that the lease sale does include Alabama acreage but is under the jurisdiction of Florida's desires. So that is a discussion that is going on currently in the governor's office. And, you know, there are some questions that remain unanswered. I thought I would try to bring that down to a local level for you all.

MR. SELBY: Mr. Chairman, I had a question for Ralph. Ralph, to be wildly optimistic here for a moment, if some discussion were to take place with regard to the recommendation from this committee about looking at a couple more moratoria areas and the Secretary's response that she would like to at least look into that, if something were to develop, would it have to be within this 5-year period in order to proceed with this effort? How would that happen?

MR. AINGER: The law says we can't issue leases that aren't on an approved 5-year schedule. We can go through the process. We can't issue leases. That's a little bit of a red herring, because I don't think anybody is going to bid on any leases that aren't actually available on that program.

If changes are made, policy changes were made to substantive procedures, we would have to go through the process again to do a 5-year program. We examine it each year to ensure it is still valid and reflecting the existing national policy. So if something happened, someone decided they wanted to add sales, we would simply go through the process again.

MS. KALLAUR: Carolita Kallaur. One thing I think you need to look at in terms of the Secretary's response, she also has a statement in there we are not going to collect any information in the moratoria areas unless the state expresses some interest.

Just an example of the situation we are in, earlier this year, we tried to do a literature survey of the Atlantic areas just to update the information that had been collected since the time we had been working on lease sales, and we got tremendous political backlash. So I mean, just to understand the political environment we operate in, our hands are tied somewhat.

I think that is why, in a sense, she was saying we are only going to do something if a state steps forward and says at least I want to look at new information. There has to be some willingness from a coastal state saying I'm willing to reassess the area. Otherwise, the backlash we experience is something that, you know, we can't deal with. We know, in the end, we can get appropriation riders and everything else.

I think you have to look at the political environment we are working in. I personally think the environment should have changed since the 11th of September. How you communicate that to people, you know, is another issue. I think that gets into these education outreaches and things like that.

I really think we are living in a different world than we were post September 11th; but I think many people don't really understand that. Clearly, you have to practice conservation, a host of other things. I think we have much more energy vulnerability than we did in the past.

MR. CARLTON: Jim Carlton, Major Oil. I had a quick question with respect to the Secretary's responses on resolutions, the date stamped on the literature, October 4th. Does anyone know if the responses were formulated pre-September 11 or post September 11th?

MS. KALLAUR: Pre.

MR. CARLTON: Thank you.

MR. OLTZ: George.

MR. AHMAOGAK: Mayor Ahmaogak, representing local government. As you can see from the 5-year program, you could see several on '03, '05, '07 and Chukchi located on the North Slope of Alaska. I appreciate the Secretary's response and our recommendation that came from the Natural Gas Policy Council for us to mitigate those impacts and that she'd be looking at policy and also physical issues surrounding communication of those impacts.

And until we hear that, I'm fearful, again, these lease sales will start that domino effect of these impacts that are growing. They are with us right now. I think we are heading in the right direction when we made those recommendations to the Secretary. It is just hoped that they get followed up with policy and physical notes attached to it.

And because these things are real, we have got some more leases also coming at us. Now the team-rolling, cumulative impacts have started. I want you guys to be cognizant of that. That is why I'm advocating we need to enter these programs as we continue our 5-year plans. Impact is one of those critical areas that we've certainly got to understand and accept and deal with.

MR. OLTZ: Good point, George. Thank you. Any other comments?

With that, we'll move on to our next agenda item. We have a speaker here this morning that will talk to us about oil and gas supply and demand and update. He is Henry Groppe. And Paul Kelly will introduce him. Thank you, Paul.

MR. KELLY: Paul Kelly, Offshore Support Industry. If you look in your agenda packet, you will find a one-page biography of Mr. Groppe. He's a partner and founder of Groppe, Long & Littell, a Houston-based consulting firm providing long-term forecasting, planning and development for the energy industry.

Mr. Groppe is a man with a very high reputation in the industry for his and his firm's ability's to forecast and look at the oil and gas market. You can read the biographical sketch yourself.

Let me read a couple interesting facts in terms of past performance success. In October 1980, Arab light crude oil had risen from $12.17 a barrel in 1978 to more than $30 a barrel. What everyone else said was that oil prices would continue to increase perhaps to as much as $100 per barrel. Mr. Groppe's firm said oil will be selling at $15 a barrel by 1985, half of its 1980 price.

What happened? Prices began falling after the October 1985 OPEC meeting. In 1986, the average price for Arab light crude oil was $14 a barrel.

In October 1998, low prices had the industry in a panic. Everyone else said oil prices would remain depressed for a long time. Mr. Groppe's firm said all the fundamentals were in place for a big jump in oil prices within the next six months. What happened? Oil prices began a dramatic recovery to more than $30 a barrel after OPEC meeting in March of 1999.

Finally, in April 1999, OPEC met in March just before that and reduced quotas to 25.5 million barrels a day. Everyone else said the third round of production cuts might get prices back to $18 to $20 by year-end. Mr. Groppe said because the OPEC ministers were confused about the numbers, they made a radical adjustment. If the new agreement holds past the meeting on September 22, the price of West Texas Intermediate can be expected to reach $30 per barrel by the end of 1999. What happened? West Texas Intermediate was $30.12 a barrel at the end of February 2000.

We have someone with us today who has a pretty good track record in crystal-balling the oil and gas market. We are honored to have you here, Mr. Groppe. I look forward to your remarks.

OIL AND GAS SUPPLY/DEMAND UPDATE – HENRY GROPPE

MR. GROPPE: Thank you, Paul. What I would like to do is summarize for you our views regarding the long-term outlook on world oil supply, demand and price; the same thing for Northern American natural gas; and then also towards the end speak briefly about the recent events and kinds of price movements we have seen during the last several months.

A quick word about how we go about our work so you will have a context within which to judge what I will be presenting. Our small, specialized firm started 46 years ago. We have been doing the same thing all of that time, and that is through a very detailed, fundamental analysis examining very carefully what actually happened in the past, rather than misperceptions, and against that background trying to identify major changes of direction. These don't happen very frequently; when they do, usually over a relatively short period of time.

We have just come out of a 12- to 14-year period that we entered with major surpluses of producing capacity for both world oil and northern American natural gas brought on primarily by major declines in consumption that followed the big run-ups in prices in oil and gas in the late '70s, and now with 12 to 14 years of very low prices, consumption has recovered, has grown very rapidly, and we have basically run out of the ability to supply that kind of fast-growing demand.

You really never run out of oil or gas; but many, many years ago, we ran out of $2.00 oil. Then later we ran out of $8.00 oil. All I'm presenting to you is the view that we have run out of 15 to $20.00 oil.

The same comments would apply to northern American natural gas.

First slide, Figure 1 please. A good way to start this is to examine the history of world crude oil production going back to the end of World War II and our projection out for the next ten years. Everything I'll be presenting to you, excludes eastern Europe, except for the net exports from that part of the world to the rest of the world, because we have difficulty getting what we think are accurate data from inside eastern Europe.

The red line, is annual production and adjusting for seasonal changes in inventories is the same as consumption. Look at that remarkable 25 years after World War II. Oil production. Consumption went from 7 million barrels a day to 47 million barrels a day. Obviously, it was no longer possible to find enough oil to meet that kind of six to seven percent compound annual growth rate.

By the way, of course, that contributed to that unique golden era of economic growth in world history where we had the finest kind of energy available at what appeared to be limitless supplies, very low prices, $2.00, most of that time F.O.B. the Middle East and deliverable with the large tankers at very low delivery costs all around the world. You couldn't have a better environment for strong economic growth, and growth we had.

We ran out of our ability to provide oil at those prices and had the first big run-up in oil prices. That would have occurred if there had never been a disturbance in the Middle East, never an OPEC. We could no longer supply that kind of growth rate. It takes a big increase in prices to restrain that kind of growth.

Consumption declined. That brought on a decline in real prices. If I were to show the prices in marks or yen or other currencies in with most of the world's users have to buy their oil, since the world oil trade is denominated in dollars and had a weak dollar, you would observe a 20 to 40 percent decline.

The doubling of prices after the Iranian revolution again caused a significant decline in consumption, which brought on the inevitable collapse in oil prices in late '85, '86. Consumption has since increased 20 million barrels a day, and we can't find and supply that much oil. Whenever that occurs, there has to be a significant increase in prices to restrain consumption to match what we forecast to be a declining total supply.

This will require prices rising gradually from about 30 to 40 or $42.00 a barrel, and that will cause a slow decline in oil consumption during the next ten years.

Let's take a quick look at the consumption side, Figure 2, covering the period since the early '70s. The curve at the top is the same one you have just been observing, and then in the lower part of this, we have consumption broken down regionally, the bottom three lines are the EEC countries, United States, Western Europe, OECD countries in Asia, and the other line all the rest of the world.

The most striking thing you notice very quickly is that much of the growth in consumption is in the developing world. In fact, it is interesting to note we have just now gotten back to our peak oil consumption in the United States of 1977.

Western Europe is not there yet. The Asian OECD countries consumption is a little higher than the previous peak because those have been faster growing economies. But the bulk of the growth has been in the developing world, almost tripling from about 10 million barrels a day to about 30 million barrels a day.

This also illustrates something else that is very interesting and important to think about, particularly as you hear so much comment currently about economic activity and declining oil demand. And that is, in the developing world, in almost 30 years, there has only been one year when we had a year-to-year decline in consumption. That was following that first big oil crisis of the early '70s when oil prices rose about 400 percent. From then on, no matter what kinds of economic conditions, what kinds of increases in prices, we have consumption increasing year after year.

The reason is that the driver for oil consumption growth is transportation fuel. Basically, consumption grows almost linearly with world vehicle population.

Let's take a look at the supply and particularly the break-down between non-OPEC and OPEC supply in Figure 3. The purple line is non-OPEC production. This starts in 1970 and forecasts out to the year 2010. You can see non-OPEC production has responded very logically with some lag time to the increases in prices, the first run-up in prices, an increase in non-OPEC production, then a falling off in the rate of increase with the declines in prices, then an acceleration again after the doubling of prices after the Iranian revolution, and then almost reached a plateau in the middle '80s.

Most of this increase you have seen over the last ten years or so was not major new finds primarily, but it was a decision by nearly all of the non-OPEC producing companies and countries to exploit what they had more and more rapidly in order to maintain or grow production in the face of disappointing major exploration results.

The other thing I would like to comment on is that, during the last 30 years, we probably had something on the order of a trillion and a half dollars spent on exploration and development around the world. The three largest non-OPEC discoveries during all of that time were all underwater, deep water U.S. Gulf, deep water Brazil, and the waters in the Bay of Campeche in Mexico.

Our best estimate is that each one of those at peak production might be of the order of a million and a half barrels a day.

If they would all reach peak production at the same time, and they will not, but if they did, that is roughly equal to one year's base decline in world oil production. Think of that. The three largest non-OPEC discoveries in the last 30 years are equal to roughly one year's base decline in oil production. Putting it another way, we use a billion barrels of non-OPEC oil about every 23 three days. So if we had any hope of just maintaining non-OPEC production over the long term, we would have to add a billion barrels of recoverable reserves every 23 days. Who thinks that can be done?

The OPEC countries, of course, have operated as the swing producer, providing the difference between whatever non-OPEC was producing and world demand. Of course, they had a disastrous experience in the early '80s after the doubling of oil prices reduced demand so much and saw their market share drop by almost 50 percent.

The Saudis particularly bore the brunt of that because they stuck to contract prices much longer than the other OPEC members. They actually saw their production decline from a peak of about 10 million barrels a day to a low of about 2 million barrels a day in the spring of '85 rapidly going to zero. They then decided to sign net-back contracts,

to meet the market price, signed those contracts in late '85, and that's when the price broke. They then embarked on a determined drive to get back up to what they consider their comfortable, sustainable long-term producing level of about 8 million barrels a day. They reached that in '93 and said there was no point in discussing quota again.

Until they had to accommodate Iraq, which they did in '97, and they have continued to hold to that basic policy.

The line at the bottom is net exports from Eastern Europe. Those were relatively stable at about a million and a half to 2 million barrels a day for many years. They have been rising some recently as privatization is enabling the oil industry there to make progress in their production practices.

Figure 4 is a summary of the production histories going back to 1945 of the five largest non-OPEC producers, and together they constitute about two-thirds of the total non-OPEC production.

The line at the top is the U.S. and illustrates a very classic point, exploration is a progressive process. You always go after the largest deposits first. They are the easiest to find and most profitable.

As you do that, you rapidly build production, as we did in the 25 years after 1945; but, in time, you reach the point where those big early discoveries have reached their natural declines. By that time, the newer discoveries are too small to offset those, and you enter the last half of the production curve history for a field, a region, a country or ultimately the world.

The challenge in this forecasting effort is to try to identify when that turning point occurs in each major area of oil production.

The one large increase after the peak in 1970 was the bringing on of the North Slope production in the late '70s that converted what had been a geological curiosity when oil was $2.00 to a commercial reality with the big price increases, but that was a one-time addition. Our lower 48 production has now declined almost 50 percent.

This is a major reality check on the widely held view that we have tight supplies, because we have underinvested the last few years and all we have to do is ramp up investment and take production to any desired level.

That belies the fundamental progressive nature of exploration. If that could have been done, certainly it would have been done in the United States during the last 30 years when we had big price increase times and most thought oil was going above $50 a barrel.

This is where most of the technology was developed by the largest of number of companies competitively applying it. What happened?

Production declined almost continuously by 50 percent. That is what is in store for all producing areas of the world.

The second largest, the North Sea, appears now to have peaked. Production was brought up very rapidly.

The more rapidly you exploit the more rapid the decline after you reach the peak development.

The third largest non-OPEC producer is China, a longer, slower pattern of development, but that now appears to have peaked and is declining.

The fourth largest is Mexico. Mexico's conventional production peaked many years ago. Then they made the discoveries in the Bay of Campeche. That brought production up on a one-time basis, but that now appears to be peaking.

And then the fifth largest is Canada. Canada is an exception to what I have been presenting to you. Its conventional production peaked at the same time ours did, and then they began their long, slow, continuous development of heavy oil and the processing of the very large oil sands resource. This is essentially a mining operation.

It is very capital intensive. But we are seeing a steady increase in this and probably in the next 15 years Canada will become the largest non-OPEC producer of oil.

Figure 5 shows the production curve history for Alaska. Production was brought up very rapidly to two million barrels a day, peaked in the mid-'80s, and has already declined 50 percent.

Figure 6 shows the same pattern for Norway. Norway took a slower path of development until about 15 years ago, they became very dependent on the revenue, needed it for their economy, and then shifted to rapid exploitation. When you do that, these are the kinds of decline curves that result.

Then last on oil and the key to what happens in pricing and supply is OPEC. Figure 7 shows the history of OPEC production from 1985 and forecast out to 2010, arranged with Iraq at the top, Venezuela, Saudi Arabia, Kuwait, United Arab Emirates, and all the rest of OPEC.

First you note that, all the rest of OPEC has been at capacity for ten years. More recently, it was recognized that Venezuela is at capacity. Since Chavez took control of the government oil company, the first president to do so, and critically examined the activities it became clear their capacity is about 3 million barrels a day, and they're unlikely to be able to do very much more than that.

At the present time, we are operating with something of the order of 3-1/2 million barrels a day of unused producing capacity in a 76-million-barrel-per-day world oil market. A relatively small margin of spare capacity. Going forward, as we look at the world's oil resources, the one country that has the potential for adding major incremental supplies of oil once they are completely free of restrictions, is Iraq.

On the same basis that the Saudis had determined that about 8 million barrels a day is their comfortable, sustainable, long-term producing capacity, that same kind of analysis in Iraq comes up with a number of about 6 million barrels a day. They are currently producing about three. And we estimate, in time, they will be moving toward adding 3 million barrels a day.

As this has happened and the Saudis have seen everyone else reach capacity, they have now dramatically shifted their policy in the direction of the way the Texas Railroad Commission operated for some 30 or 40 years in controlling world oil prices by assuming everyone else would produce at capacity, getting monthly estimates of the need for oil, and then assigning production in Texas to meet the gap. And the Saudis are now in that position.

A dramatic illustration of this is either unilaterally or through leadership within OPEC, they have changed oil production seven times in the last 18 months in order to achieve their desired price target. They increased production four times last year as prices were getting to be very strong. This year, they have reduced them three times. The last reduction didn't occur until September and is just now being felt in the marketplace.

As a result, we think the outlook for oil prices the next several years is quite strong. OPEC is supplying 2 million barrels a day less oil currently than they did a year ago, non-OPEC production has been about flat during that same period of time, consumption is off a little but nothing like 2 million barrels a day.

So all of our work indicates, as we go into the normal winter months with the normal seasonal increase in demand, we are going to be short of oil. OPEC is going to have to increase production in order to keep prices from getting beyond the upper range of their target price band of $22 to $28.00 a barrel.

Now let's turn to North American Natural Gas. Figure 8 presents a history of the U.S. natural gas business going back to 1945. The red line is our production. The green line is annual reserve additions. The blue line at the top is total year-end reserves.

The first comment I would like to make about natural gas is that we have the unique confluence of two first-time events. This is the first time we have a true deliverability shortage of North American natural gas. We had an apparent shortage in the late '70s, but that was because of governmental policy requiring 20-year reserve life behind all sales contracts in Canada and behind all sales contracts gas in interstate commerce in this country, which was about 50 percent of our production. We had reached the point where we couldn't find enough gas to maintain those

20-year reserves. But now with complete deregulation, every producer in the U.S. and Canada is producing and selling every cubic foot every day.

And Canada, for example, in the last 12 or 14 years has gone from a reserve life index of about 20 years to a current reserve life index of about 9 years. In the U.S., it is about 8-1/2. That is about as fast as you can exploit our first time true deliverability shortage.

The other unique event is that for the first time in the history of the U.S. electric power industry, essentially, every major expansion project is based on natural gas. Think of the significance of those two unique events.

We built up our industry during the first 25 years after World War II at a very rapid rate. We expanded pipelines throughout the United States, also almost quintupled production from about 5 trillion feet a year to 22-1/2 trillion feet a year. Also, we found a lot more than we were using every year, big finds in West Texas and the Gulf of Mexico. We doubled our bank of total year-end reserves from about 150 trillion to a little under 300 trillion.

The most significant date in this entire history is 1967. That is the last year we replaced production of natural gas on a straight-up new reserve additions-basis. As a consequence, we lived off the bank account to a major extent, ran total year-end reserves down almost 50 percent.

The blue line is revisions and adjustments. And in one sense, this indication of relatively flat total year-end reserves at about 160 trillion is one of the stranger energy statistics you will encounter because that covers one of the periods of the highest drilling activity in history, two of the periods of the lowest drilling activity in history and yet it shows we kept reserves constant.

That was done with revisions and adjustments meeting the gap between the amount we were finding and the amount we were producing. And a lot of that was done through making use of the reserve estimation procedures that allow that.

For example, the big increase in revisions in 1986 was due to the Kansas Corporate Commission allowing in field drilling for the first time in the Hugoton, which had been the biggest field in the U.S. With that, everybody in that field estimated all of the future increased recovery with closer in field drilling and booked it all in that one year, which means, in the future, you get lots of drilling without any reserve additions. Those are the kinds of things that have been done to give an indication, an appearance that we are replacing production.

Another very important point to note about our U.S. gas picture is illustrated in Figure 9. This shows the history from 1970 going forward. The blue line is consumption. The green line is our production.

And the red line is the average well head price in constant 2001 dollars per million Btu.

Again, you can see the consumption has responded to price changes as you would expect. A big run-up in prices in the latter part of the '70s brought on a 20 percent decline in consumption. It was that decline that gave us our gas bubble. It was not a supply event. After prices collapsed, consumption started rising very sharply and rose beyond our ability to meet our requirements with our own production and we have been relying on imports primarily from Canada ever since. If Canada had not had the surplus-producing capacity and the willingness to export it to us to help us solve our problem we would have had a gas crisis for many years in this country with very high gas prices.

Now, as I mentioned earlier, Canada has reached their capacity, and they are now in about the same shape that we are in. Our forecast going forward is that gas prices will have to rise to the level to moderate consumption to match a declining total supply, just as I had indicated to you my conclusions regarding oil.

Figure 10 presents the same kind of production history that we looked at for non-OPEC oil, which again illustrates a very fundamental point about the nature of exploration.

These are our eight largest sources of gas supply.

Together they account for about 90 percent of our total. The largest by far is onshore Texas. Texas production peaked in 1972, almost 30 years ago, and has declined by about a third since. The dramatic drop in the early '80s was primarily due to the decline in consumption. The deliverability line would be the line you would get if you connected that point to about where we are now.

The second largest source of supply is the Texas and Louisiana Shelf, the blue line. That peaked in 1981 and declined about 34 percent since. Onshore Louisiana, the third largest, peaked in 1970 and has declined 72 percent since.

Oklahoma, different geology, longer, slower buildup, peaked in 1990 and has declined 26 percent since. And in New Mexico, conventional production peaked many years ago and then the Section 29 tax credit stimu lation of coalbed methane production more than offset that. That now appears to have leveled out.

Wyoming, which is primarily a tight gas province, has been benefiting from the Section 29 credits from some years ago and continued higher prices.

The deep water in the Gulf of Mexico shows the largest recent increase in total supply in the lower 48, but that needs to be examined carefully. Most of you know better than I that the Gulf was opened to leasing during the Reagan Administration, and then in 1987, the minimum lease requirement was lowered to $25 an acre. With that stimulus, several of the majors (particularly Exxon, Shell and BP) leased large portions of the prospective acreage. The deep water leases allow ten years to develop commercial production. So they launched an intensive exploration effort.

Then by 1996 to 1997 they were beginning to run up against that ten-year deadline and shifted dramatically to development program and bringing all of those ten years of finds on production.

My point is that you cannot extrapolate that kind of growth curve because that represents the results of that ten years of intense virgin exploration.

The most striking thing again is the purple line, imports from Canada. And you can see that that has been the supply that's solved our gas problem.

There are forecast declines going forward. The most dramatic of those is on the Texas shelf. And one other thing that has occurred here, as many of you know, is, in order to maintain production as well as it has been maintained, technology has been developed that has enabled the producers to exploit more and more rapidly. So that today, in onshore Texas, the first year decline rate of our new gas wells is running something of the order of 50 to 56 percent. The Gulf of Mexico is running 40 to 50 percent. Canada has now risen to over 40 percent. In fact, Canada is seeing a total decline rate of about 25 percent per year in their gas production. So it is a very dynamic, rapidly moving escalator that, when it turns, drops very rapidly and leads to the kind of forecast that I have presented to you.

Figure 11 is the final slide on the U.S. gas supply situation. This is the monthly production in billions of cubic feet a day going back to 1990. This covers all of the lower 48 states, the shelf in the Gulf of Mexico, and all of Alberta, the bulk of our North American gas supply.

What I have shown here is that if we had not added any new wells, beginning the first of 1998, total annual production from that entire region would have declined about 13 billion feet a day or roughly 20 percent. We think that has now accelerated. We have not been able to get all of the data yet to bring this forward.

That means you have got to find and bring on stream every year production roughly and the same order of magnitude as the total Gulf of Mexico or a little bit less than the total production in western Canada if you have any hope of maintaining total gas production.

Obviously, that can't be done.

In summary, what I have presented to you is a picture of very tight oil and gas supplies, great contrast with the environment we have enjoyed the last 12 or 14 years, one in which we are going to have rising prices to restrain

consumption to match a declining total supply. It will have an impact on the economy, with all of the rising imports, a major pressure on what is already a very hard to sustain, long-term trade balance problem.

And this requires doing everything possible in order to develop as much as we can in terms of total domestic production of both oil and gas. I think of that as a North American policy because those are secure supplies of energy for us.

One other quick comment I would like to make, in the short-term picture, we are very much affected by what's happened since September the 11th. In all of our experience and our work, we think the current soft oil prices and relaxed view with regard to oil supply is very irrational in relationship to the facts.

I went to live and work in the Middle East and Saudi Arabia for the first time in 1948. I have followed it closely since. And the Middle East has become very complicated for us and is going to be much more complicated in the future. For almost 50 years, our Middle East policy was basically our national energy policy. That was, number one, to maintain total military control over the region, to have the Arabian Gulf be our lake.

For 40 years of that 50 years, that was aimed at keeping Russia out, which we did very effectively.

The second part of that policy was because there is no way for the industrialized world to do without that Middle East oil, we wanted as much political stability in the region as possible. Pragmatically we concluded that the most achievable stability was for no one of the five major power centers in the region to become too weak or too strong, Egypt, Israel, Syria, Iraq and Iran, and we were very successful with that policy.

If it became necessary, we switched sides so no one got too weak or too strong, as we did in the long-running Iraqi-Iranian war. Now the cold war is over, and the fact you do not have a single Arab nation in that part of the world that has a representative government and with today's world, with information being transmitted to everyone, we have explosive situations in nearly all of those countries.

In our view, the conflict is not primarily a religious conflict, because three of your major rulers in that area are secular in Iraq, Syria, Egypt, but it is more an attempt for more participation in government by may elements of the population in particularly directed toward what has been a very oppressive and corrupt government for many years in the government of Saudi Arabia.

We are viewed as one of the major sources of support keeping that government in power. Revolutionary efforts are supported by many elements of Saudi society, who have given up on any other means of achieving some participation in government there.

I would like to make two other quick comments. To understand the Middle East, visualize what North America would be like if all of the original native Indian tribes were still in place with all of their original territories. That is the way the Middle East has been for the last several thousand years.

Iraq, for example, is very complex, at least twelve historical competing tribes. If you took out the ruthless Bathist Party government, you would immediately have a Balkans type situation.

The other major long-term conflict is between the Arabs and the Persians to control that part of the world represented primarily today by Iraq/Iran. And to control that part of the world, you need the Saudi oil reserves. So no matter who runs Saudi Arabia, whether it is a continuation of the current government or a new revolutionary government, they would be seeking our support for protection against Iraq or Iran, who would be moving to control the Saudi reserves in order to have major control of that part of the world.

My point is that is we are now in a very different kind of world, insofar as energy, security and supply are concerned, which places even more emphasis on doing whatever we can to conserve and to increase our domestic production. Thank you.

MR. OLTZ: Thank you.

(Applause.)

MR. GROPPE: I'd be happy to answer any questions if you have time.

MR. OLTZ: I think we can allow questions. Nancy.

MS. JOHNSON: Yes, Nancy Johnson, Department of Energy. I was struck by your statement that we do all we can to develop domestic oil and gas resources. Also, when I looked at the curves that you had on the chart in terms of the future, all of it was a bit depressing. Everything was going down in terms of U.S. production potential.

From your perspective, is that because of the business as usual approach on behalf of industry and government? Would it be different? Is there some way we can focus ourselves to change those curves? How do you reconcile your curves with the downward decline? You know, go get more?

MR. GROPPE: I'm getting a lot of feedback, so I didn't hear the last part of that. Reconcile with what?

MS. JOHNSON: Again, your curves are showing U.S. production going down. You are saying we need to do everything we can to get out and produce more of our domestic and North American oil and gas resources.

MR. GROPPE: Right. The production decline curves that I have presented were based previously on the kind of access that we now have in terms of past policy. If there were access to other areas that were not available for exploration, that rate of decline would be slowed accordingly, depending on what kinds of discoveries were made.

We do all of this work on a regional basis, and we assumed a continuation of all the past leasing policies. We assumed no access to any of the offshore East Coast. We assumed no access to the eastern part of the Gulf and no changes in access to the federal lands throughout the west, which represents another major resource area.

MR. OLTZ: Sir?

MR. GALVIN: Pat Galvin from the State of Alaska. What do you see, although it's further, tell me your time lines, is the viability of Alaska to the lower 48 natural gas pipeline and impacts on domestic reserves?

MR. GROPPE: A good question. We think the most economic and likely access to Alaskan's gas reserves will be through incrementally northward expansion of the Canadian pipeline infrastructure to the McKenzie Delta then to their Artic regions and then to Alaska in perhaps seven to eight years. With Canada's twenty plus percent annual decline rate in their base natural gas production the northern gas will be needed to slow the rate of decline in exports to the United States.

MR. CALDWELL: Mr. Groppe, in light of declining gas production, why are they building all these emergency generating plants? What is your outlook on that?

MR. GROPPE: One of the reasons for so much of that building was the National Petroleum Council's study on future gas supply, which came out a couple years ago, and came up with the conclusion that we could have a 30 trillion a year gas market in the U.S. by 2010 and that with continually improving technology, that that could be done at prices roughly in the $2.25 + $2.50 per MMBTU range.

With that kind of resource availability, assumption, this was the logical thing to do, more environmentally benign than other choices, lower capital costs, you can do it quickly, use it for peak load serving. And so the electric utility industry used that assumption and went forward with it.

Most of these newer combined cycle units have approximately higher efficiencies than the older conventionally fired boilers. So all of those new units will be able to pre-empt their supply and take it from the other less efficient, older, large boiler installations, which in the intermediate term will have to substitute fuel oil. That is the way the system will be balanced in the short-term.

That means gas prices will have to be at parity with fuel oil prices, whatever those will be with the future oil prices. It means more requirements for oil, more imported oil than would be the case otherwise. And then over time in the interplay in the marketplace, we will move toward the most economic, long-term fuels for power generation, clean coal, getting back to nuclear, whatever evolves as the most economic source of fuel for power generation.

We think that would tend toward gas prices getting up to the $5 to $6 range several years out but then beginning to come back down after you start expanding these other sources. In the total picture, we use almost half of our total energy usage in the U.S. for power generation and, of that, about 50 to 55 percent is coal, 20 percent is nuclear, gas is a smaller portion, 12, 14 percent, but it's the swing portion.

MR. OLTZ: Mr. Kelly.

MR. KELLY: Paul Kelly, Offshore Support Industry. Mr. Groppe, later on in the program, we are going to have a panel on the prospect for additional LNG imports into the United States and a report on various projects under consideration. How do you see LNG fitting into the mix as we go forward?

MR. GROPPE: Good question. Our anticipation would be that with the kinds of forecast declines I have shown here, we'll see increases in LNG importation but probably not to the kinds of levels that have been forecast during the last year or two because, in order to get the base load business you need from major new projects you would have to get long-term electric utility contracts.

It's hard to visualize that electric utilities would be willing to sign 15- to 20-year contracts for LNG and be committed to whatever that landed delivered price to the utility might be, let's say it is in the $3.50 to $4.00 range delivered to the utility, when they are competing with others who are generating power fromcoal and nuclear that have probably half that fuel cost.

So continued growth in LNG, particularly to supply the high-valued uses, but not the kind of expansion that people will be visualizing to serve that large portion of our energy usage for power generation.

MR. OLTZ: One more question, I think. Any other comments here? Jack.

MR. CALDWELL: Mr. Groppe, I have one more question. You haven't specifically mentioned Russia. What is your outlook for Russian production in the future?

MR. GROPPE: Right. One of my partners has been working in provinces in Russia for the last three or four years. We have followed this closely. The consensus seems to be, if all of the conditions are ideal, if you get the foreign investment capital which you need, if you solve the infrastructure problems, if you get access to the services that you need that you should be able to see a net total increase in former Soviet Union production of about 3 million barrels a day during the next ten years.

And keep in mind that's a larger addition of new production, but their base production is declining all the time. So it ends up being a net 3 million barrels a day, and that's about 300,000 barrels a day during ten years, and very significant to Russia, significant to us, but it doesn't make that much difference in the kind of long-term balance I was presenting to you, doesn't solve the world oil supply problem.

MR. OLTZ: Mr. Groppe, I thank you very much. That was one of the more interesting presentations I think we have heard in a while. I'm very enthused about what you had to say. From somebody who is on the rubber chicken circuit, a lot of this will come in handy. I appreciate that very much. Thank you.

MR. GROPPE: Thank you. We'll see what unfolds here in the next year or two. Fascinating time.

MR. OLTZ: We'll now take a 15-minute break. We'll hold tight to that and finish up the morning schedule. See you in 15.

MR. OLTZ: The next speaker is going to be Walter Cruickshank. This is about management improvement. I hold him to some sort of a scale and try to measure each year whether management has improved or whether his

management has improved. We are always happy to hear from him. He's going to talk to us about the national energy policy. Walter, welcome.

MR. CRUICKSHANK: Thank you, Don. I always look forward to hearing your introductions of me. You have something exciting to say at the time.

NATIONAL ENERGY POLICY – WALTER D. CRUICKSHANK

MR. CRUICKSHANK: I'm going to talk briefly today about the national energy policy. Last time we met, I also covered this topic. I also spoke about what is in the President's plan. Today, I will provide a cursory summary of the President's plan and spend most of my time focusing on some of the actions MMS is taking to implement that policy.

I also bring regrets from congressional staff. Congress is still in session. They are struggling to make up for lost time from being locked out of their offices over the last several days and over the last couple weeks. I will also try to bring you up to date on what is going on in terms of energy legislation.

The President's National Energy Policy is founded on the analysis that shows there is a fundamental imbalance between supply and demand in this country. Over the next 20 years, oil consumption is expected to increase by about one-third and natural gas consumption by about one half. Demand is projected to be nearly 50 percent more than domestic production 20 years hence.

It was in this context the President asked the Vice President to form a national energy policy development group to help bring together business, government, local communities, and citizens to promote a dependable, affordable and environmentally sound supply of energy for the future.

Like so many other things, energy policy has taken on a new dimension in light of the September 11th events. I think energy policy will remain in the forefront of discussion in Washington going into next year regardless of what happens to energy prices this winter.

On May 17th of this year, the Vice President's energy policy development group issued its report to the President. Secretary Gale Norton was part of that group, as were several other cabinet secretaries and agency heads. The report contains about 105 recommendations, half of which deal with conservation and environmental protection; the remainder with energy supply, infrastructure and energy security. About 20 of those recommendations require legislation, the rest to be carried out administratively.

Of the 105 recommendations, about 11 of them are directly relevant to MMS. Obviously, implementation of the National Energy Policy is taking place across government. The Department of Interior will be taking a bottoms-up approach to implementing the NEP. Each of the bureaus that deal with the energy issues have put together their own individual plans in trying to carry their actions forward. Clearly, there are some issues that cross bureau lines, and those are being dealt on a departmental level or on a government-wide level rather than with any sort of individual bureau plan.

MMS has about 23 items in our National Energy Policy implementation. Many of these are part and parcel to our core problems, and you have already heard about some of them and will continue to hear about others during the course of these two days. On those items, I will be very brief, as you will hear about them in more detail. I will spend more detail on some of the other items you won't be hearing about elsewhere.

The central purpose of the MMS and NEP was the recommendation and approval of exploration and development plans on predictable schedules. We have several actions under this recommendation. One is to hold the remaining sales in the current 5-year leasing program. As you will hear from Chris Oynes tomorrow, we did have the Western Gulf sale in August, a very successful sale, and we are on schedule for two more lease sales under the 5-year program, the Eastern Gulf sale in December, Central Gulf sale in March of next year.

We also will complete development of our new 5-year program from 2002 to 2007. Ralph covered that ably this morning. So I won't mention any more about that.

Finally, we are trying to move forward with exploration development plans on a regular basis throughout our program but call particular attention to the plans for Liberty, Offshore Alaska. That will be the first proposed development entirely on the federal OCS. That is expected to obtain 120 million barrels of recoverable oil. I'm sure John Goll will cover that in more detail tomorrow.

The second major area of interest to us in the President's policy was recommendation to consider economic incentives for environmentally sound offshore oil and gas development. MMS has responded to this with a variety of programs for both new and existing leases.

First turning to new leases. We have instituted over the past year some royalty suspension programs in the Gulf of Mexico. One is the Deep Water Royalty Relief Program, but the mandatory provisions of that act expired in 2000.

What we did for the 2001 lease sales was continue the program on a slightly different basis. We are offering royalty suspension on 9 million barrels of oil equivalent per lease in water depths of 800 meters to 1600 meters and 12 million barrels of oil equivalent per lease in 1600 meters of water and greater. This is a little different than the 1975 act, which provided royalty relief on a field basis unless substantially larger volume.

The current program obviously is in 800 meters of water depth and greater.

We also planned to offer supplemental royalty relief in water depths of 200 meters or more where the owner demonstrates some additional relief may be necessary to bring marginal discoveries on line. This would go in place either for leases that had no royalty relief from their original lease term or those offered this past year in the future lease sales that had some royalty relief that may not be sufficient to bring new developments on line.

We will allow companies to comment and to make a case when they need additional relief in order to bring their discovery on line; and if they provide a convincing case, we would offer some royalty suspension.

In order to put that program in place, we need to complete a rulemaking that was started some time ago, and we expect a final rule to take place before the end of the year.

In addition to deep water royalty relief, we have also in the past year introduced a new program for royalty relief for deep well natural gas in the shallow waters of the Gulf of Mexico.

This is focused on natural gas produced from wells with a total depth of 15,000 feet or more.

The rationale for this program was that looking at the NPC study and various other projections, it showed a great deal of natural gas was going to be needed in the upcoming years, but a lot of new sources of natural gas people were looking at deep water Gulf of Mexico or the North Slope of Alaska and Canada. Those sources might be several years out in the future, and there weren't a lot of new areas where one could bring in gas relatively quickly in the meantime.

The deep wells in offshore Gulf of Mexico offered an opportunity to try and jump -start some activity in an area that has been relatively unexplored and technologically a challenge. If oil is welled and discoveries made, it can be tied into the existing infrastructure quickly.

To be eligible for this royalty release, your well must have a total depth of 15,000 feet or more. Production must start within the initial 5-year term of the lease. In that case, you would receive royalty relief on the first 20 billion cubic feet of natural gas produced. This policy was put in place both in Gulf of Mexico lease sales we have held in this year, and we expect to hold that in future lease sales.

We are also considering an incentive for natural gas production from deep wells from existing leases that were issued prior to the sales this year. Relief will be similar in form to what was done for future new leases.

In order to do such an initiative, we need to go through a rulemaking process, which has not yet begun. If there is a decision to proceed with this initiative, we should expect a proposed rule probably earlier next year.

Another area where we have a number of initiatives in the NEP is to try and expedite permits and other such actions that are necessary.

The day after issuing the National Energy Policy Report, the President issued an executive order calling on all the federal agencies to rationalize permitting for energy production in an environmentally sound manner by directing federal agencies to expedite permits and other federal actions necessary for energy-related project approvals on a national basis.

One of the things we want to do within MMS is to try to work with other agencies who have a role in the permitting process of the OCS to see if there is a way to try and streamline those processes. So we can look at various proposals a little more rapidly than we do now. Also, to try and help streamline things we are considering now, the issue on floating production storage and offloading systems in the Gulf of Mexico.

FPSOs are a means of developing deep water discoveries and have been used elsewhere in the world but have not been introduced in the Gulf of Mexico yet. And we have been looking at those issues also and on problematic levels in the Gulf to determine if FPSOs are something we would consider for individual developments. We expect a decision on this before the end of the year. And if it is approved, then folks will have to comment on their individual projects through the normal approval process.

Other ways we hope will help streamline our process are the plans for E-Gov. We already talked about that this morning. I won't go into that in any more depth other than to say we are hoping, through electronic submittal of information and electronic distribution, all the regulatory reviewing agencies will be able to use these tools to further streamline our business process.

Another area of the President's policy calls for research and development in a number of areas, including enhanced oil recovery, improved exploration technology, and improved pipeline safety. It also calls for doing this research in partnership with public and private entities.

At MMS, we have the Technology Assessment and Research Program that is active in all of these areas. It is considering projects in its current cycle for extended reach and multi-lateral wells, for safety-related technology, and on pipeline safety. And the program continues to operate through partnerships with universities, private companies, and government laboratories.

The President's policy also directed the Secretary of Commerce and Interior to re-examine the current federal legal and policy regime to determine if changes are needed regarding energy-related activities in the setting of energy facilities in the coastal zone and on the OCS. We have been and expect to continue working with commerce on issues relating to coastal zone consistency, as well as the new Marine Protected Areas Program.

I didn't mention other items that aren't directly related to the offshore program, but they are important elements of the President's policy and affect our Minerals Record Management Program at MMS. The National Energy Policy Report recommends making additional resources available for the Low Income Home Energy Assistance Program in addition to increasing that basic appropriation this past year.

The President's policy calls for the Administration to decide whether to resume delivery of RIK oil to DOI for SPR, Strategic Petroleum Reserve of oil and gas, on the assumption when prices are high, federal lease revenues increase quite a bit and a portion of those additional revenues could be redirected into the energy assistance programs. We have had discussions with both OMB and Department of Health and Human Services where the LIHEAP program resides and are working on proposed legislation so the opportunity arises to introduce it.

In addition, as Tom mentioned briefly this morning, the President's policy calls for consideration of restarting the 1999-2000 program where about 28 million barrels of royalty-in-kind oil in the Gulf of Mexico was transferred into the Department of Energy for use in filling the strategic petroleum reserve.

The President's report specifically calls for that determination to be made after all of the oil has been delivered to the Department of Energy. But what the Department of Energy did upon receiving our barrels in '99 and 2000 was they

then exchanged those barrels for other barrels of oil that met their quality specifications and will be delivered at points in the future. At this point, not all of those contracts have been fulfilled, and the DOI is not expected to have all of that oil in the ground until the end of next year. Because of events on September 11th, the timetable for this issue has moved up, and the administration is currently looking at this issue.

We have been along with DOI providing information to the National Economic Council and OMB so Administration can make a decision on whether they want to restart this particular program.

Outside of MMS, I mentioned, as well, there are issues that sort of cut across bureau lines. The department is looking at trying to streamline its own internal process at MMS. There is an internal task force chaired by the Department Secretary and consisting of senior managers from each bureau determining how we can make some of our own internal permitting processes work more efficiently.

Some of the items we are looking at include National Environmental Policy Act compliance, application processes for energy rights-of-way, consultations in the Endangered Species Act, and consultations for historic and cultural resources under the National Historic Preservation Act. Most of these issues are usually more controversial onshore than off.

Stepping back even further, there is an effort being made to try and streamline permit reviews. The same executive order that calls for rationalizing permitting established the Council of Environmental Quality, and the goal of this task force is to try and expedite permit reviews and the completion of major energy projects.

At the end of August, CEQ issued a Federal Register Notice calling for input on what sorts of issues they should be looking at, calling for specific processes and specific projects that they should put on their agenda as they do their work over the next year. That Federal Register notice closed the beginning of this month, and the CEQ task force has really just been formed, just got put together in offices about two weeks ago. So they are starting to go through those comments.

Interior did suggest several major energy programs, projects on federal lands that might be of interest, as well as some of the processes that might be worthwhile for CEQ to take a look at. We expect to hear in the near future what CEQ's approach is going to be.

That kind of wraps up what we are doing within executive or within MMS Department of Interior on implementing National Energy Policy.

I want to turn briefly to the energy legislation. The house passed H.R. 4, the securing America's Future Energy or Safe Act back in July.

I'm going to briefly walk through the provisions of that bill that deal with MMS. I'm going to limit it to the MMS-related sections because it's is a fairly substantial bill, which I could probably take two days to read and we would run out of time. Then I will touch briefly on the status of energy legislation in the Senate.

There are several items in H.R. 4 of specific issue to MMS and to this Committee. One deals with deep water royalty relief, royalty relief in general, from both deep water and marginal wells.

With respect to deep water, H.R. 4 calls for a two-year program of royalty relief in the central and western Gulf that would set royalty suspension volumes of 5 million barrels of oil equivalent per lease in 400 to 800 meters of water; 9 million barrels of oil in 800 to 1600 meters; 12 million barrels of oil in 1600 meters of water or more. Those latter two categories, 800 meters and deeper, basically codify the program we have had in place for the past year. But then it does add the 5 million barrels royalty relief in 400 meters to 800 meters of water.

In addition, the bill calls for the National Academy of Sciences to take a look at this whole issue of deep water relief. It calls for the Academy to review the various assessments of undiscovered resources in the Gulf of Mexico; compare the financial terms of OCS leases to those of other areas with vibrant offshore programs, particularly West Africa and Brazil; calls for the Academy then to recommend appropriate financial incentives for Gulf of Mexico

leases, not just in deep water, but in all water depths, and report back to Congress of the findings and recommendations within six months.

With respect to marginal wells, H.R. 4 provides royalty relief for marginal wells when oil prices dip below $15 per barrel for oil for 180 consecutive pricing days or when natural gas prices are below $2 per million Btu's for 180 consecutive days.

The provision goes on to define marginal as being 30 barrels per day of oil or 120 million Btu's per day of gas onshore or 300 barrels and 1200 million Btu's offshore.

This bill is the first time I have actually seen someone try to define what a marginal well is for offshore. Beyond setting this definition of marginal production and these price thresholds provisions, H.R. 4 actually gives no other guidance at all on either how or how much to reduce royalties or what to do when prices go back up above those price thresholds. If this provision were to pass, it would appear the Secretary would have substantial discretion to design a program to implement this provision.

I would also note that those price thresholds in H.R. 4 are ones that would not necessarily be easy to meet going back to January of 1986 when daily oil and gas prices were readily available. That $15 price threshold has never been met. And for natural gas, the $2.00 per million price threshold was last met in 1994 and early 1995.

Another section of H.R. 4 relates to subsalt activity in the Gulf of Mexico. In particular, it allows the Secretary to grant a suspension of operations to allow for the reprocessing and interpretation of geophysical data for the purpose of identifying drilling objectives beneath the subsalt sheets, beneath the subsalt layers.

Our typical suspension programs have required that a well be drilled before you can become eligible for suspension, unless certain other criteria have been met that are beyond control; but, in the case of subsalt, there has been some real issues with being able to interpret the geophysical and seismic data because the salt sheets themselves distort that data and make it quite a bit more difficult to get a handle on what you are looking for beneath the salt layers.

Rather than for someone to drill a well within the primary lease term, just to keep the lease going, this provision would allow us to grant suspensions for the purposes of reprocessing and re-interpretation of whether it was going to be headed in the direction of drilling a subsalt well.

Legislation is not required to be able to do this. And, within MMS, we are considering a rule to try and accomplish the same thing. So there may be a proposed rule in the future on this topic regardless of what happens to H.R. 4.

Another provision of H.R. 4 that is important to MMS, though perhaps not as relevant to this Committee, is a fairly substantial provision on royalty in kind. As you know, MMS has been running some royalty in kind policies for the last few years, and they are based on very skeletal authority that exists in the OCS Lands and Mineral Leasing Acts. This provision would flesh out that authority for a 5-year period and in particular would give us authority we now have through land appropriations bills to pay for transportation and processing of the oil and gas we take in kind out of the proceeds of RIK sales. This would allow us in essence to move the production we take to the market centers where we can get the best price and also take advantage of our position to try and get some better transportation and processing the deal. So it is a very, very key provision for MMS in order to get the best return to the treasury out of the RIK program.

The provision will also codify certain current practices, including making it clear the lessee is responsible for placing production in a marketable condition before delivering to MMS and, also, once the proper volume of royalty in kind has been delivered that the royalty obligation has been fulfilled. It also will say that we should only do RIK when the Secretary determines the benefits of royalty in kind are at least as great as those of a comparable royalty-in-value program.

It calls for an annual report to Congress on the RIK program; and if we were to do onshore RIK beyond the current pilot in Wyoming to consult with the state and allow some delegation of RIK authority to those states.

Finally, H.R. 4 has a provision for research for ultra deep water and unconventional gas technology research, development and demonstration. It calls for the Department of Energy to establish a research program in these areas and in particular to establish a research organization through a competitive solicitation process. Once selected, it would then be this research organization's responsibility to award grants for conducting research, 15 percent of the moneys available in this program for environmental mitigation technologies for resources in unconventional reservoirs, defining unconventional being onshore. It does also include methane hydrates.

It calls for another 15 percent to be spent for exploration, production and environmental mitigation technologies for ultra deep water, which is defined as greater than 1500 feet; then at a full 60 percent of the moneys that are available would go for developing and demonstrating the next generation of architecture for ultra deep water development.

The remaining 10 percent would go to the National Energy Technology Lab and the U.S. Geological Survey to conduct long-term research. The function of this program would be subject to appropriations. That simply authorizes money.

It does not provide money outright, but it would include a $900 million loan that would be repaid from lease revenues on ultra deep water leases, as well as authorizing up to 7.5 percent of all federal oil and gas lease revenues.

There are a variety of other provisions in H.R. 4 that may be of interest to you. There are a number of provisions related to onshore gas programs and BLM tax provisions. I'm not going to through those today.

With respect to the Senate, they have energy legislation under consideration, but it's not clear when they will actually bring something to the floor. Both republicans and democrats introduced energy legislation for the Energy and Natural Resources Committee very early in the session of Congress, but as things have played out more recently, the Senate majority has decided not to have committee hearings or committee markup on energy legislation but rather bring an energy bill directly to the floor.

At this point, Senator Benjamin, the Chairman of the Energy and Natural Resources Committee, and his staff are putting a bill together for the majority leader, Senator Daschle, to bring to the floor at such time as the majority leader is ready. That bill is not fully drafted yet. Senator Benjamin has said it will take seven to ten days after the senate offices are reopened before he will be able to provide a bill to Senator Daschle.

In the meantime, the minority side on the Senate has also drafted an energy bill to bring up on the floor. My understanding is that that bill has been completely drafted but not yet introduced.

So, at this point, it is not clear when Senate energy legislation will be brought to the floor, but it seems unlikely it will happen this session simply because of the number of appropriations bills that still need to be passed, as well as some of other security legislation that is before Congress. All of those will take a higher priority than energy legislation. So it might not be until early in the next session where the Senate will take up this legislation.

And, with that, I think I have come back on schedule. I'd be more than happy to take any questions.

MR. OLTZ: Thank you, Walter. Are there any questions? Paul Kelly.

MR. KELLY: Paul Kelly, Offshore Support Industry. Walter, going back to the incentive for deep water gas drilling on the shelf, I think that bidders received that initiative very well in the last two lease sales in the Gulf of Mexico, central and western Gulf sales this year.

As you indicated, MMS intends to issue a rulemaking that would apply the incentive to existing leases. The advantage to that is that it would -- it would encourage drilling below 15,000 feet from infrastructure that already exists, I mean platforms and pipelines, and indeed might extend the active and producing life of that infrastructure.

So I think that's a very positive move.

You mentioned that there will be a rulemaking initiated in January of '02. The question I had for you is: Will that rulemaking be done on a business-as-usual-basis or will the encouragement of expedited permitting that are included

in the National Energy Plan and in the President's Executive Order be applicable to this ruling and maybe accelerate the process some? And if not, what would be your estimate on how much time it might take to make that ruling effective?

MR. CRUICKSHANK: One thing I have learned in my years in government is never predict how long a rulemaking process may run. I have seen rules get out in final stage as quickly as five or six months, and I have seen them take five or six years. With respect to the rulemaking process, the Administrative Procedures Act still applies, and clearly we would need to do everything required by law in the rule-making process.

That said, I think a lot of what would happen between the time a proposed rule is issued and a final rule comes out really depends on what issues come up in comments, whether there are issues there we need to think through or talk through with decision-makers; but if there are not a lot of comments so that a final rule might look very much like a proposed rule, that is something we would be able to do much more quickly. It really kind of depends what issues come up during rulemaking process as to how quickly we can move.

MR. KELLY: Thank you.

MR. OLTZ: Sir.

MR. SIMS: I'm Earl Sims representing Independent Producers. I would make a comment about OCS royalty policies and our working with the MMS on them. There has been absolutely no lack of openness and dialogue and engagement on deep water royalty relief and shelf royalty relief, and we certainly are excited looking at the deep gas coming in January, as well. We have not agreed on every aspect of royalty policy. We have certainly felt we have always had a good dialogue with the MMS over those matters and look forward to that continuing in the future.

My question for Walter is: With regard to your engagement with the National Oceanographic and Atmospheric Administration over CZM policies. Do you have a particular time line for that? There are a lot of stakeholders around the table on CZM policies, particularly in consistency. Do you have a means in mind of opening that dialogue up in terms of looking at those policies, and what is your timing, and do you have a process in mind?

MR. CRUICKSHANK: Nothing specific at this point. The Department Secretaries of the two Departments have met. We are kind of expecting this is an issue that the CEQ task force will get involved in. Since that task force is just starting up, we are not quite sure what their deal is going to be, how we are going to tackle those issues. We are kind of waiting for the CEQ to get underway before we move forward on this issue.

MR. OLTZ: Any other questions? The closing session this morning is on the Hard Minerals Subcommittee meeting. We have an update from the chairman of that committee, Larry Schmidt.

HARD MINERALS UPDATE – LAWRENCE C. SCHMIDT

MR. SCHMIDT: Thank you very much, Mr. Chairman. As per our custom, the Hard Minerals Subcommittee met just prior to the formal meeting of the OCS Policy Committee. We met Monday evening in this hotel, and we have had representatives come that are members of the subcommittee, plus it's an open invitation to all other members of the Policy Committee and other interested folk in the area of beach nourishment and hard minerals. We had state representatives from Massachusetts, Rhode Island, New York, New Jersey, Alabama, Virginia. We had some West Coast and Alaska representation from members of MMS staff.

Our normal format for these meetings is to get a report from Carol Hartgen, who heads up INTERMAR and is responsible for the sand and the hard minerals program at MMS. Carol gave us a very good report on activities that have transpired in the last six months.

And I think that the first thing that we always like to do is look at our score card in terms of, you know, how much federal sand has been conveyed over the last six months or a year as part of this program, sand from the offshore. And within the last six months, the Minerals Management Service conveyed 1.8 million cubic yards of offshore sand to the National Park Service for Assateague Island in Virginia and an additional hundred thousand cubic yards of sand to the State of Maryland adjacent to Assateague.

Previous conveyances over the last couple years have been in the State of Florida; in South Carolina and Myrtle Beach; in Virginia, both with Virginia Beach and the Navy at Dam Neck; and the State of Maryland.

Currently there are pending requests from the State of Virginia, from the U.S. Navy, City of Virginia Beach and, in conjunction, some of the work that is being done in this area by the Corps of Engineers. It is all in the area of Virginia Beach, Sandridge, and Dam Neck. So this is the hot area for MMS to look at moving sand from the offshore onto the beaches for beach nourishment purposes.

There are also local government requests in Louisiana from Holly Beach, I think it is Cameron Parish, that is pending. And the large project they have been looking at there is Ship Shoal over the last couple years.

In addition to the conveyances, MMS still gets a small amount of money to work with the states in cooperative programs to gain information on offshore sand resources and impacts, and the current co-op program is working very well mostly with the geologic offices within state government.

And right now it is in Virginia, New Jersey, Maryland, Alabama and Florida. Minerals Management Service just completed a study/final report entitled Examination of Regional Management Strategies for Federal Offshore Borrow Areas along the United States East and Gulf of Mexico Coasts.

This is a very important first step because it is the recognition that we should not be looking at just project specific impacts, that a lot of these are interrelated, and I think the activities around Maryland and Virginia are very critical in bringing this point home.

This report has a series of recommendations and also a plan for implementing regional sand management. And I think it's a very important step in recognizing the way to approach these issues are regional and not just throwing sand on the beach at an emergency situation.

And through the Environmental Studies Program, the MMS will soon be funding an environmental investigation on the use of shoals off the State of Maryland, specifically looking at the impacts on Bentos and Finfin. And this is going to relate to working in the future with the National Marine Fishery Service on the question of essential fisheries habitat.

Hopefully this study will have applicability to other shoal areas on the East Coast and Gulf of Mexico so the results will be transferable in terms of dealing with fisheries issues with respect to borrow areas and sand mining.

On another front, MMS has just finished a monitoring design study. This is a development of protocols on how to monitor long-term cumulative impacts of sand mining. And this is going to be followed up with a field test in the next year, and the candidate site is Sandbridge, Virginia, because so much work has been done in that area. This is very important to MMS because it will give good baseline, long-term impact analysis in a monitoring protocol that is scientifically defensible.

A lot of this and a half that has been developed over the last two or three years by INTERMAR and the states are going to be represented at the MMS annual information transfer session in New Orleans in January. As a matter of fact, one full day will be devoted to sand and gravel, both the biological and also the physical processes so that, for the first time, the information transfer sessions will not simply be limited to oil and gas technology but also bringing into the fold the sand and gravel activities.

And, as a follow-up to that, Carol and her staff are working with some of her contractors and some of the folks that have interest in this field to prepare a series of journal articles that will be peer reviewed and hopefully be placed in the Journal of Coastal Research in the fall of 2002.

So we are starting to get some of the benefits that are coming out of MMS investment into the scientific community. That is I think very healthy in terms of gathering knowledge and then sharing it with others.

On a different subject, MMS is starting to gather information on artificial reefs throughout the coastal waters. Many states, I know New Jersey has a series of artificial reefs in federal waters that have been permitted by the Corps of Engineers. This represents a potential spatial conflict in terms of sand resources and utilization of the ocean bottom for artificial reefs. They are trying to get a database now and address this as an issue in the future that is something that has to be balanced in terms of overall ocean policy, ocean governance, how we work those things out.

The field trip we had yesterday, half of it was the afternoon. Part of it was devoted to the State of California and some of the problems that they are having with their coastal beaches and coastal cliffs and erosion and the need for beach nourishment.

And it was driven home very clearly to those of us on that field trip when we got to Solana Beach that there are issues there very important to the State of California. The field trip had to be scheduled in conjunction with a low tide because, if it wasn't, we'd be in 2 feet of water, and the waves would be lapping up at the bottom of sea cliffs. We got there during a low-tide situation and were able to see, not only some of the erosional failures, but also what Government is doing in responding very innovatively. I have to give credit to the State of California. They have been able to create structures, retaining walls that to the outside eye would look like the natural cliff face. They have done a very, very good job of disguising 30-foot high sea walls.

In conjunction with that, the Minerals Management Service is just starting discussion with the State of California regarding potential offshore sources of sand for beach nourishment, which is desperately needed. The problem is, in California, as we all know, the outer continental shelf drops off very close to the coast; so there is very limited opportunities. Unlike the East Coast where sand resources or deposits could be anywhere from three to 20 miles off the coast in huge quantities, this is a much more limited exercise.

And the State of California is also starting to do a master plan for erosion and beach nourishment and control of the processes along the coastal ocean, and I think they can work very cooperatively with MMS on potential possibilities.

When I get done with my comments, I will maybe ask Brian Baird, my counterpart from the State of California, on what they are doing to supplement what was in the field trip.

One of the things that our subcommittee is doing is we have created a small group consisting of myself, George Banino, and Barry Drucker of MMS staff to see if we could put together a national symposium on the environmental impacts of sand mining and the use of borrow areas for beach nourishment.

And we are looking to an entity, possibly the Corps of Engineer's Coastal States Organization; Association of State Geologists; or the WDA, Western Dredging Association, to help us put this together because there is, not only this new set of information that is coming out of work being done cooperatively with MMS, but worldwide there is a lot of information and a lot of history of sand and gravel extraction, environmental impacts, especially the United Kingdom and other parts of Europe, so that it would be an interesting opportunity if we could become the catalyst to get this symposium created. This is an idea that George Banino came up with about six months ago.

I think we are going to try within the next several months of our small subcommittee to work on this to see if we can get some interest from any entity that may be interested in co-sponsoring it so that anybody out there that could help us with potential groups that would have interest in this.

I would very welcome the information. Couple items I want to convey of somewhat local interest in the New York/New Jersey area is that the State of New Jersey and the Corps of Engineers has completed a major beach re-nourishment project in Monmouth County, our northern beaches. We have taken about 20, 25 million cubic yards of sand and placed them on our beaches over the last five or six years.

As part of the overall approval for this project, the Corps has committed to do a major monitoring, long-term monitoring project of cumulative impacts. And this project was budgeted at over eight and a half million dollars over a five-year period. And the results of that long-term cumulative impact analysis monitoring have been released about six months ago by the New York District of the Corps of Engineers.

And, you know, it is difficult because of the credibility issue with the Corps of Engineers, but they say that the impacts are relatively minor and that the fisheries and shell fish can come back and that there is not major difficulties in the long term with fisheries and sand mining co-existing in the same borrow area.

The monitoring study has been subjected to peer review, and I believe there will be a presentation by Mark Burlas of the Corps of Engineers at the information transfer session in January.

So there is a major commitment at least on one project that shows that the type of monitoring that needs to be done over a long period of time is very intensive, it is very expensive; but hopefully those results are transferable.

The last thing I want to bring up this morning, as you will recall, though it's a very controversial issue at the MMS and the Department of Interior, when a private company in New Jersey, Amboy Aggregates, requested a commercial lease sale a couple years ago for construction aggregates in federal waters off of New Jersey, Secretary Babbitt declined to go forward with the lease sale or the environmental impact statement leading up to the lease sale; but this did not result in a major impact in terms of the ability of this company to get sand because, several months ago, my Department, the Department of Environmental Protection, extended the lease, the commercial dredging license in state waters within the Ambrose Channel, which is the main entrance channel to New York Harbor.

The company is pulling out aggregates of commercial value from this channel, which is now 2000 feet wide and 60 to 70 feet deep. So this is providing an extra benefit for navigation in terms of a wider and safer and deeper channel. It is providing the Corps of Engineers with this channel with no federal costs associated with maintenance dredging. And through the commercial dredging license, the State of New Jersey is getting royalties that extend up to about a million dollars a year.

The license has been extended for five years. The company can take up to 12 million cubic yards of construction aggregate material during that five-year period. And, anecdotally, I have heard within the greater New York, northern New Jersey metropolitan area, Amboy Aggregate provides more than 50 percent of the material that is used in public works projects and in construction.

So I think this extension is good news, especially in light of what happened in New York City on September 11, because there is going to be a lot of concrete necessary to rebuild lower New York. So we continually have to have sources, since the sources on land are diminishing, and the cost of bringing sand and construction aggregates from greater distances would reflect in higher prices.

So that is sort of good news. The company itself still has a long-term interest in gaining access to federal offshore sand and gravel; but at least in the short term, I think we have been able to find a good solution in state borders.

Mr. Chairman, that is my report.

MR. OLTZ: Thank you, Larry. Are there any questions or comments?

MR. BAIRD: Mr. Chairman, Brian Baird from California. Just briefly, we are launching a master plan approach to soil erosion along the entire California coast. For those of you familiar with this issue, there is no silver bullet with what you do with soil erosion. There is a great deal of controversy with just about anything you do.

You try to intervene with sea walls or jetties or anything that alters sediment transport along the coast. However, one thing is clear, particularly down here in the San Diego area, there is a policy to begin to look at regional sand nourishment along the coastline. The State of California is very interested in identifying any potential sources of sand.

I think we have sort of written off the outer continental shelf because of the water depth issue, but Carol did come and speak with us.

There are some areas off the California coastline where there may be some potential. I think the criteria that was used went out to a depth of 150 feet, which would be a little too deep, I think, from what I have been told; but certainly within that, there may be some acceptable water depths.

So we are open to working with Minerals Management Service as we do this statewide plan to see if there are opportunities. Most certainly when we do this, we are looking at what issues we have with our current sources of sand in comparison with these potentially deeper sources.

We are very pleased we have been approached. We are happy to work with Minerals Management Services on this.

MR. OLTZ: Any other questions or comments? After being part of that field trip the other day and finding out what California considers bedrock when I got shook last night at about five minutes to midnight, I think it was, all I could picture was what kind of foundation this hotel has underneath it and what it is planted in, how much water was in that particular sandstone that wasn't too solidified.

Thank you. We look forward to the inventory of shoals, particularly around New Jersey. I think maybe we'll find out where the famous Jimmy Hoffa Shoal is.

(Laughter.)

MR. OLTZ: Ladies and gentleman, in the hotel for lunch, there is a pasta bar in the lobby, full service restaurant in the deli. If you go out of the hotel off of Broadway, head toward the water, you will find some restaurants down on the water. If you head uptown towards the Gaslamp Quarter, you'll run into all kinds of places to eat. We'll see you back here at 1:30. Thank you.

(Adjournment for lunch.)

AFTERNOON SESSION

MR. OLTZ: Good afternoon. Welcome back. We are ready to start the afternoon session. I was told all morning, every time I spoke, I did not identify myself. So I guess I'm guilty of not following my own rules. For the record, for the tape, this is Don Oltz, the chairman.

I have an announcement regarding our reception this evening. It will be in the Topaz Room from 5:30 to 7:30. The sponsors for this evening's reception are the American Petroleum Institute, Domestic Petroleum Council, International Association of Drilling Contractors, and the National Ocean Industries Association. So if you see any members of those associations here, be sure to thank them.

The first panel this afternoon is on LNG. Of recent notice in the news, I believe, since our Massachusetts delegate seems to be gone right for the moment here, Boston I understand went to court to prevent LNG being shipped in, I think this week, first shipment of LNG since September 11th. I'm not sure what all that was about, but we might be able to hear some of that this afternoon.

Paul Martin from MMS will go ahead and moderate. Paul, it's yours.

RE-EMERGENCE OF LNG PANEL

MODERATOR – PAUL E. MARTIN

MR. MARTIN: Thank you very much. The topic is the re-emergence of LNG. And if most of you are like me, you remember LNG coming up back in the early '80s when we were having the energy crisis all around, and it was going to be a big supplier of energy; but then it all just kind of disappeared. I like with the rest of you kind of wondered whatever happened to LNG.

This morning, you heard a presentation on the supply of natural gas and crude oil, the prices, and then the question came up where does LNG fit in. There is a lot of different opinions where it fits in, what are the costs, what are the economics, what are the safety concerns and everything else. In addressing the panel presentation, I was prepared to have to go out and get three or four experts from all across the different realms of LNG to come in and address some of the various topics, but I was very fortunate in locating a company called CH-IV, which is an international

consultant in all different phases of LNG, from design and operation of facilities to shipping and even to some marketing of that.

So what I have done is, Mr. Jeff Beale, the president of CH-IV International, I have asked Jeff to state some pretty general topics in LNG, try to hit some of the high points. Chris Oynes is the general from the Gulf of Mexico region.

We have had three or four applications for pipeline facilities in the Gulf of Mexico to deal with importing LNG. So we are going to have Jeff talk all across the board about LNG. We are going to have Chris then talk about some of the specifics of the applications we have. And then I will hold the questions until both of them get through. Then we will approach that way. I think we'll benefit from it.

Jeff Beale, as I said, is President of CH-IV International. He has an aeronautical engineering degree from Ohio State. His bio is out there. We are very fortunate he's listed on there as one of only three individuals in the country to have worked in three of the four LNG facilities in the country.

The discussion about Boston and the suit, I was just talking with Jeff about it. I think we are very fortunate to have someone here. We always talk about LNG and everything you wanted to know but were afraid to ask, and I think I have given you an opportunity for here's an individual that everything you have always wanted to know about LNG but you had no one to ask. So I would encourage you to really ask Jeff everything on your mind.

Nothing is too simple. With that, Jeff, I will let you go.

ALTERNATIVE WAYS OF GETTING NATURAL GAS TO THE CONSUMER AND REACTIVATION OF LNG FACILITIES – JEFFREY BEALE

MR. BEALE: Thank you, Paul. Is the speaker okay? I hope I can live up to your expectations. But certainly my objective here today is to hopefully introduce some of you to aspects of LNG that you may not be familiar, but more importantly in the questions and answers the things I didn't cover or you weren't sure what I was talking about, please follow up with a question.

The agenda today is to just briefly touch on what LNG is for those of you who may not be familiar; talk about the marine transport of getting it from one location to another; and then talk about the importation, that is, the facility that is going to receive this LNG, store it, turn it back into natural gas, and put it in the pipeline where it looks just like natural gas again; talk a little more about where it is coming from; some of the environmental issues, which obviously the MMS is going to be interested in; and try to touch on the security issues -- I think we are all right now today re-evaluating everything we thought we knew, and the LNG industry is no different. Everything changed on September 11th -- and then some brief discussion on how this impacts the OCS.

LNG Basics: What is LNG? First of all, it is not propane. It is not LPG. It is not methanol. We run across that all the time. There is confusion.

LNG is a cryogenic. That is, it is very cold. It is a cryogenic liquid. If you have ever seen a demonstration, whether it is with liquid nitrogen or anything else, you take a rose, stick it in a beaker of liquid nitrogen, it becomes brittle; tennis ball, throw it on the ground, it shatters.

So we are talking, one thing that is particular about LNG is it is a very, very cold liquid, minus 260 degrees Fahrenheit, basically. The thing that's interesting, though, when we talk about freezing a rose and we think about cold making everything brittle, we are very fortunate in our world that there are other things, such at stainless steel, copper alloys, Teflon that actually gets stronger the colder they get.

And so, obviously, when you think about the safety side, that's what we use in construction of an LNG facility, these materials that actually get stronger as they get cold.

As far as what are the cryogenics, these are the primary. When you talk about cryogenic liquids, what are the common ones?

Actually, it ends up LNG is a warm cryogenic liquid compared to, say, hydrogen or helium.

This is to give you a little relationship. If you are not aware, many times on a highway, you are probably driving by a truck that's carrying liquid nitrogen at minus 320 degrees. It happens all the time.

Back to the basics. It is simply natural gas. It is natural gas that has been refrigerated to about minus 260 degrees. At that temperature, it looks like water. It turns right into a clear liquid, but it has no water in it. It has no carbon dioxide. It has no sulfur compounds because, frankly, when you take any of those to minus 260 degrees, they become rocks.

What we want with LNG is a pure liquid. So any of the components that are naturally occurring in natural gas that come out of the well that would turn into rocks at minus 260 degrees, we take out. So natural gas from LNG actually is a very, very clean LNG. It is going to be all paraffin hydrocarbons with just a touch of nitrogen. And it is mostly methane, CH_4, which by the way, if you didn't catch that, that is the name of our company, CH-IV.

It looks just like boiling water in a beaker, except it is 500 degrees colder. It has a vapor liquid ratio of 600 to one. I mention this because sometimes people think that means that it instantaneously can go from one volume to 600; thus you get an explosion. I just want to point out that water has a thousand to one ratio. We don't think about water exploding. You cannot turn LNG into vapor instantaneously. It does not explode by converting from liquid to vapor. Just like I said, just like water.

So how is it used? One of the most common ways here in the United States is LNG peakshaving facilities. These are facilities typically on the end of gas pipelines. And during the summer, they take natural gas right out of the pipeline through a liquefaction plant and liquefy it and store it in these huge tanks. There is a liquid there in the fall, and then in the winter when the demand increases and the gas pipeline pressures start to drop, they take and vaporize, take that LNG from a liquid, turn it back into a natural gas, put it right in the pipeline.

There are about 58 of these facilities operating in the United States today. LNG is far from new. It is far from a small industry. Most of us are just not aware it exists in, I used to know exactly how many states, but quite a few states.

As a matter of fact, this picture, basically, these are the locations of LNG peakshavers today or some of these, for example, this facility right here or this facility right here, are actually LNG production facilities used for making LNG for vehicular fuel. So the label peakshavers is not quite correct. Some of these facilities actually have been manufacturer installed specifically for making vehicular fuel for LNG or using LNG as vehicular fuel.

Other kinds of peakshavers are just simply small tanks. May not look that small, but relative to that big tank, this is a very small tank.

Again, same idea. You truck LNG just like you would that liquid nitrogen I was talking about to a remote location in the fall, fill up this LNG. And then on the days the pipeline pressure starts to drop, a little bit comes out through a vaporizer unit right in the pipeline, very automatic. And there are about 35 of these in the United States.

Some facilities are using LNG to replace their propane. This facility here is up in New Hampshire, as a matter of fact, in Hampton, New Hampshire. There is a textile plant up there that has been burning propane as its primary fuel.

Well, a few years ago, the propane was replaced with liquefied natural gas. The same thing, the LNG comes out, vaporizes, turns into natural gas, and is burned as fuel in their power-producing and heating systems.

It is also a vehicle fuel. California particularly is probably the state right now that has the most LNG-powered vehicles. This one, however, happens to be Edinburgh, Scotland. But the idea is, instead of a diesel tank, you have an LNG tank. And the LNG sits in there at minus 260 degrees. It gets pulled out as fuel, converted back to a vapor, and burned as natural gas in the engine. It is very clean and in some parts of the world extremely economic.

As a matter of fact, I spent most of the '90s personally trying to develop the liquefied natural gas as vehicular fuel in industry. This is a fueling station we installed in New Mexico. I don't suppose there is anybody from New Mexico. But the unique future of this station in New Mexico, just to call out, this is a convenience store, and out here is a gasoline fueling island. This was a diesel fueling island, and an LNG fueling island, just like you would have gasoline.

So LNG can in fact be made very safe, very transparent. The drivers of these trucks filled their own vehicles. You notice there is no moon suit. There is no exotic protection, because LNG, although it is an energy to be paid attention to and designed and used safely, is in fact very safe to use.

But the real area of LNG in terms of its consumption here in the United States both in terms of import and export is being used as supplemental natural gas supply. Generally speaking, you are exporting from a gas rich country to an industrial poor country. And that's the whole point here. Yes, you export from, that's right, gas rich -- excuse me. I've got to walk through this myself -- then import it to an industrial rich, but gas poor company. There it is.

That's really what the focus, I think, of the interest here is, these ships coming from somewhere else, coming into our country, coming through onshore.

And so getting back a little bit to talk about the basics then. I just kind of jumped around here. The other part, the other aspects of LNG to be aware of is it is half the weight of water.

Additionally, and this is a nice feature, this is natural gas. This is not LNG. Natural gas is only flammable between a range of 5 to 15 percent in air. If you filled this room with natural gas, 100 percent filled it, and ignite it, lit a match, well, you couldn't light a match because there is no oxygen. If there is no oxygen, you can't ignite natural gas. So too much natural gas in a confined area will not burn. Not enough, that is, less, if it is less than 5 percent, there is not enough methane in the room. It cannot ignite.

So natural gas is easy to control in terms of its air-to-fuel ratio, which makes it a nice feature. It is also clean-burning, which is predominantly one of the reasons why California has been focusing on using it as vehicle fuel.

Why is it so clean? Well, I think most of us have heard or understand that hydrogen, as far as if you want to burn a fuel, hydrogen would be the most ideal fuel, because when you burn hydrogen, you get hydrogen burned in air, which is oxygen, you get H_2O, water. Well, if you look at methane, it's one carbon atom, four hydrogen atoms.

So it is the cleanest of all the nonpure hydrogen fuels. So it has got a very high hydrogen-to-carbon ratio, which makes it a good, clean-burning fuel.

As LNG sitting in this beaker, it is clear. It is colorless. It is odorless. That is why in natural gas, and all natural gas is odorless, the smell you smell when you say I smell gas, in fact, you are smelling odorant. You are smelling something we put into the gas to give it a smell to make you think it smells like gas, but gas doesn't have a smell. I have been told this.

Hazards: LNG is an energy. It does have certain hazards. One of the nice features, if you will, is when you dump LNG on the ground, it spills and begins to vaporize. As it begins to vaporize, it condenses the water vapor in the air out to where you get a vapor, a vapor cloud around it. And as it warms up to only minus 160 degrees, and that's even colder than some places in Alaska, it will then become buoyant, and the flammability of that gas is uniquely, not precisely, but more or less in the fringes of that flammable.

I want to show you a little picture. This is just a small, little demonstration, but the individual here, there is an LNG beaker, if you will, and it is vaporizing. If you were to bring a match into it, it would not ignite until you got very close to that edge.

One of the really nice safety features about fighting an LNG situation, if you will, is the flammable region is going to be near the visible region. Once it is warmed up and becomes buoyant and rises, it is no longer of a high enough concentration. Remember that 5 to 15 percent.

It has already diluted itself so much that it is not flammable. So that is the key point here.

Now, you talk about so it is cold. It forms a vapor cloud. It's flammable. However, this is a big however, natural gas, LNG vapor will not, cannot explode in an open environment. An LNG ship on the high seas T-boned by another ship, dumps its contents in the ocean, you get a huge vapor cloud.

It ignites. There is no explosion. It is not propane. It is not gasoline. It does not have a fast enough flame front to explode.

Let me digress one second. There is a phenomenon called a flameless explosion that has occurred in tests with LNG. I mention this because I don't want you walking out of here saying, Well, gee, Jeff Beale says it doesn't explode. And then somebody comes along and says, Well, what about a flameless explosion?

Sure enough, the Gas Research Institute, as well as research agencies in Britain and France, have dumped LNG on the water; and as the very last of it evaporates, they get a pop, pop, pop, pop, pop.

What that this, as I said before, LNG is made up of predominantly methane, but with a little heavier hydrocarbons, propane, butane specifically. As those little fractions of the LNG at the very end, they actually do instantaneously little pockets because the water is not a flat surface. So it actually gathers in the little pockets, and they pop like popcorn.

Anti-LNG forces have taken that pop, that small, and then said, Well, the LNG if you took all that butane and all of that propane and put it into a pot, and then had it pop at one time, you would get a big explosion. So they have taken the small scale pop, turned it into a big scale explosion.

There has been no larger scale tests that show any more than these small pockets occur. But, again, I want to make clear, there is something called a flameless explosion that will come up. Particularly at public hearings when LNG is being discussed about being brought in, you'll get the expert in who will show the film of the pop and then talk about what if it had been a big LNG ship.

The reason it doesn't explode is the flame speed, when you ignite that vapor cloud, is four feet a second. That is not a very fast walk. Someone who has witnessed many, many times at LNG fire schools where you will take LNG, dump it into a 20 by 20 foot pit, let the vapor cloud drift, go down and ignite it, I can testify that flame dances back to the pit. There is no explosion. Now, when it gets to the pit, it does burn, and it burns very hot. LNG/natural gas is a very clean-burning fuel; so it burns very hot. Don't deny it. It is an energy and it will burn.

Going back to the 5 to 15, just to reiterate, though, when there are large concentrations in a small area, if there is not enough oxygen present, there is insufficient O_2 to burn. Below 5 percent, there is insufficient fuel.

The other point is a cigarette, if you took that cigarette in this situation right here, what would happen when you put it in the cloud is the cigarette would go out, because you need about 1100 degrees to ignite natural gas. A cigarette is about 500 degrees. Gasoline, for example, ignites at about 450 degrees. Propane is something between that and natural gas.

So I just want to mention that another minor safety feature is, it takes a hotter ignition point to ignite LNG/natural gas than it does gasoline, for example.

So transportation, how do we get it from point A to point B? There are ships, and we will certainly talk briefly or some about that. That is in the primary interest. I say barges. There has only actually been one barge ever built, but there is certainly a lot of discussion today about various LNG marine projects now looking towards barges as opposed to huge ships. Trailers, moving the LNG over the road, just like you would gasoline, and trailers are also used to take it from the big tanks to the small tanks for peakshaving purposes. Some ships, this is what they look like. Most people who know anything about LNG ships think they all have spheres. As you can see, these don't. About half of the ships have this spherical, this classical LNG shape.

Just as a little history, this was the first ship that ever came into Cove Point, Maryland. I just got a whole slew, a little gallery of ships for pictures. This ship right here is very unique in that it is fairly new. It is in service in Japan. Going back to the big ships we have been looking at, those are on the order of, I don't know what units you are all used to working in, but 135,000 cubic meters, 800,000 barrels, 2.7 billion cubic feet of natural gas. However, this little ship is only about 19,000 cubic meters.

Everything we thought we knew 20 years ago about the LNG industry says bigger is better; you got to make everything bigger. Now, all of a sudden, there is three of these ships below 20,000 cubic meters going from export terminals down in Southeast Asia up into individual cities in Japan.

I think I missed one. This ship here goes into Alaska, I believe an 80,000 cubic meter ship. More ships again, just a variation on the spherical design. You have got the spherical design. Then you have got sort of a covered design.

There was a barge that did serve I think seven cargoes in the Boston to northeast area in the early '70s. That is one of the few pictures remaining.

The LNG trucks I was talking about, again, they are just trailer trucks. The big thing, if you will look at it, you'll notice they have a higher profile. LNG only being half the weight of water, you are basically limited on the road by how much weight you carry, not volume. So if you are carrying LNG, which is very light, then you have a much bigger, higher tank. It's half the weight of water, like I said. If you ever see a water truck, it is a smaller diameter.

As far as an overview of the activities of import, an import facility is going to unload the ship. It is going to store the LNG in big tanks just long enough for them to turn around, pump up to high pressure, vaporize it, that is, convert it back to natural gas.

One clarification, again, for those of you who are not familiar at all, you never put the cryogenic liquid into the gas pipeline. LNG is only cryogenic coming from the ship into the storage tank and into the high pressure pumps. After that, it turns into natural gas. What leaves the facility is natural gas.

Just a little cartoon, simple. You have an LNG ship that pumps off into a tank. You have a pump in the tank that pumps out through a vaporizer and then out in the gas transmission line.
Everything is gas from this point on.

So that is sort of a basic LNG facility. I'm going to go through a couple quick ones here just to give you some more overview.

Puerto Rico started up in June, I believe, of last year. It is basically this operation. Puerto Rico is an LNG facility dedicated to a power plant. It has the ability to later send gas elsewhere. But basically it is just dedicated to supplying power to a power plant. This is the equipment at the plant in Puerto Rico.

Then you have got the Everett facility in Massachusetts, Lake Charles facility in Louisiana, and Elba Island Terminal in Georgia. The only difference there really is, because they are a larger facility, when there is not a ship in, you have to keep all the piping cold. And so the only difference between these facilities and the ones you just saw is, there is another set of pumping.

At Puerto Rico, you take the LNG right out of the tank, pump up to 600 psi, vaporize it, it goes straight to the gas turbines. At these other facilities, you have LNG in the tank, you pump it up to only 50, 60, or 70 psi, and you circulate it out through the facility to keep the pipes cold. Then you go to a second stage of pumping, which might take it up to 1400 psi and vaporize it and go into a high-pressure gas transmission line.

Well, okay, here is the Lake Charles terminal in Louisiana, LNG ships, spherical type. There is the unloading dock there. There are three LNG tanks, which, by the way, Lake Charles is in the process, it's a matter of public record, of expanding its facility. So this is the Lake Charles terminal. This is the Elba Island Terminal.

The difference with the Elba Island Terminal with Lake Charles, it looks quite similar, these tanks actually have pipe coming out of the side, out of the bottom, and the first stage pumps are outside the tank. In Lakes Charles, the

pumps are inside the tank. There are different variations on the same design scheme, and they are all certainly equally safe.

One more variation on the same design, here at Cove Point, the pumps do come out of the side of the tank, and the pumps are not in the tank, so that is like Savannah. But the big difference is right here, one mile from the shore to the unloading platform, Cove Point. Those of you who have ever been on the Chesapeake Bay off of Calvert County will see a half-mile-long pier with no visible connection to the shore, because the other unique feature of Cove Point is, all of the piping goes through a tunnel 6,000 feet long onto shore.

And it is actually fromthis flange on the ship to the top of this tank two miles, 32-inch diameter pipe, two of them. They go from offshore all the way to the tanks. Quite a site. Here is the dock offshore. And, again, those of you familiar with Chesapeake, that is Calvert Cliffs State Park, and right over there is Calvert Cliffs Nuclear Power Plant.

Now, having said that, those are sort of an overview of all of the LNG facilities in the United States, including Puerto Rico. Now, there are some new ideas out there. Comp anies are looking at different ways of doing the same thing. Dinergy out of Houston has announced a project where they are going to unload ships straight to high pressure pumps straight to vaporizers straight to the pipeline. No storage.

The idea there is to be able to bring in LNG very soon, because it takes 24 to 36 months to build these big tanks. They can put this facility in after they are approved they figure in less than 12 months. So they can get LNG from another location into the U.S. market much quicker this way. They do eventually intend storage tanks.

This is quit a unique idea, a no-storage LNG import facility.

There is also, and I may have some of the details not quite correct, and later today I think you are going to hear more from Texaco on this, but the idea here is you have got an LNG ship that comes out to a floating facility sitting offshore somewhere. A floating facility has its own storage tank. It has all of the vaporization equipment, et cetera onboard. So the ship just downloads onto this floating vessel, which can be 40 miles offshore. You pump the LNG out of it, vaporize it, run it through a submarine pipe onshore to a gas transmission system. Another way, variation on the theme.

This map here shows current and proposed LNG facilities. I'm not going to go through all of these, but I think it's interesting to note, if you just look around, basically, the perimeter of the United States is dotted. You'll see the original four terminals are black dots. Discussion of terminals in a number of areas around the United States, and similarly speaking, the red squares are the existing LNG production facilities and, correspondingly, the numbers and locations of LNG production facilities that previously had not been considered.

The LNG world right now is going through a re-emergence. In the late '70s, we thought it was here to stay. It was great. Everything was golden. You had a number of LNG trades with dedicated 20-year contracts, dedicated import facilities, dedicated export facilities, dedicated ships. That is still going on. That has to happen.

What has happened also is that engineers design facilities for a nameplate rating of about a billion cubic feet a day. And by minor debottle-necking or even inherent in the original design, you might have 20, 30, 40 percent more capacity. Now you have got 400 million cubic feet a day of natural gas that is not being sold to anybody. That is the spot market.

And so you have got bunches of things happening here with spot market capabilities, new export facilities, lots and lots of import facilities. India is certainly one. China has announced an import facility. So you can see there is a lot of activity currently if you look at the open squares and open circles on the map.

Public Perception: The bomb. Why? Five reasons. In the late '70s, District Gas in New York was trying to build an LNG terminal on Staten Island. Five books came out all with exactly the same theme, love the titles. They all read the same.

And there are a lot of facts in them. Don't let me get it wrong. There are facts in those books. The problem is, you mix facts with fiction and make it look like fact. So a lot of things that they account for and the basic theme here is, that LNG ship I was talking about, it is coming somewhere, something hits it real hard, and it knocks all its cargo out.

Well, first of all, LNG ships have four or five tanks. If you did somehow impact the ship and tear into that tank, you have torn into 20 percent of the cargo. The other tanks are fully independent and not penetrated, but let's assume they all do rip open. So now you have got 135,000 cubic meters of LNG dumped in the water, almost 3 billion cubic feet of gas. It instantly turns into a vapor cloud and drifts slowly and encompasses the entire City of New York. Somebody walks out on his deck, lights a cigarette. Boom. The whole city goes up in a huge explosion. That's the story in these books.

The stuff does burn. It can explode, but you have got to put it into a confined space. It won't explode in an unconfined space. Yes, you could come up with a scenario to rip into an LNG ship and dump some of its cargo, but you wouldn't instantly dump all its cargo, et cetera, et cetera, et cetera.

Like I said, the books have facts in them, but they also have a tremendous amount of fiction, and they have put the wrong things together happening simultaneously, and it just doesn't happen that way. That's the reality.

There was, however, one horrible LNG incident in 1944. During the war, East Ohio Gas was trying to develop a concept where they could in fact provide more gas to the people in the winter, peakshaving. So they liquefied in the summer and stored it in tanks. Then, in the winter, they pulled it out and pumped it. They did that for a couple of years.

During the war, they now need to build a bigger facility. They wanted another tank, a bigger tank. There was not enough nine nickel steel available. Nine nickel steel happens to be one of those things I was talking about earlier. It gets stronger the colder it gets. However, you have got to have enough nickel in the steel. I don't want to get too technical here, but when we build LNG tanks, we build them out of 9 percent nickel.

They only could get 3 percent nickel. Built this tank in 1944. Built it in the summer and put it in service in the late summer, filled it with liquid. Three percent nickel will not hold LNG. The tank ruptured. At that point, the codes did not require containment around the tanks, as they do today.

Also, in the same area, this is in Downtown Cleveland, there were open sewers just like you would have in any city, that is, open storm sewers. The LNG ran downhill into the storm sewers, down through the pipes, vaporized. Every chance it got, it came out, because it is natural gas. In that case, somewhere, at some point, it hit an ignition source. You had confined gas, some of which was in that 5 to 15 percent range, blew up the streets. It got into houses in the 5 to 15 percent range, blew up houses; but, more importantly, burned houses because there was so much LNG dumped in all the wrong places. You had one hell of a fire and 127 people were killed. That was 1944.

It is used today continuously to show how bad LNG is. How many of us today are relying on technology that has not advanced since 1944? I can't think of much. We have space program predominantly to thank for the world of cryogenics that we know today. And because of the space program, that is when LNG started to happen in the late '60s. So much had been learned about cryogenics.

So although Cleveland was a horrible incident and something we have to remember and have to recognize, it is not consistent at all today with what we know as LNG. Sorry about the soap box, because we now have had since 1945 to now no public individual, no individual citizen of the United States killed in an LNG accident. One operator at Cove Point, Maryland in 1979 was killed indirectly because of an LNG leak. But there has been no other individual killed in the use of LNG in the United States.

LNG ships themselves are all double hulled. In part, the primary reason is, the LNG itself is cryogenic. You have to have insulation around it. So you have a tank. You have insulation. Then you have protection around the tank, and then you have the hull of the ship. So, by definition, all LNG tanks are at least double hulled. They are multi-compartmented, as I mentioned.

You know, again, here is a four-tank ship. Just for what it is worth, when you think about the spherical ships, if you were going to try to T-bone this ship and penetrate, you can see that you have to target it pretty carefully. Those are pretty thick. The spherical tanks are also fairly thick. They are very strong.

LNG tanks onshore, you have basically, this is what is called a full-containment tank. This tank, it is a tank within a tank. It has a concrete shell around it. Not all LNG tanks are that way. Many of them are a tank with just an earthen dike around it. Again, there has never been a catastrophic failure of an LNG tank other than 1944 in Cleveland. The code does require a full containment dike around it.

You then provide exclusion zones based on the design of the tank. Whether that tank is a full containment like this or one of these requiring some other secondary containment, you then have exclusion zones based on that design how far away the public can be, buildings can be, property lines can be, et cetera. There is no blast zone because it doesn't blast.

When it does spill, there is no residue. It is not like an oil spill. Every bit of LNG spilled on the ground once the frost goes away, you could never tell there had been an LNG spill. It does not contaminate ground water. There is nothing in LNG. It all dissipates.

As I say, no ground water contamination. There are no benzenes, PCBs, aromatics, sulfurs, et cetera, in LNG. It is the cleanest burning of all the carbon-based fuels. That is what makes it so attractive here. We are in California, right? I've got to remember what day this is. It is an excellent diesel replacement.

As I said, I'm not trying to say LNG is better than pipeline gas, but it is an interesting thing. It is cleaner because it doesn't have any H_2S possibly in it, no carbon dioxide, nothing. It is just paraffin, hydrocarbons and nitrogen.

But it is a form of energy. I keep coming back. You have got to respect it. You have got to design the facility to handle it properly. The main point is: Any type of an LNG facility, there are regulatory agencies, and there are codes and standards. You follow the proper design, construction, and operating procedures, codes, et cetera, you have a safe facility.

The impact on OCS, a lot of talk today, and we'll hear from Texaco about bringing out more LNG in through the Gulf of Mexico, California.

There is talk down in Baja, and there are at least two projects that have been mentioned, one semi-public, actually bring in LNG, believe it or not, into California. North Carolina. El Paso announced a facility on Radio Island. Florida, in addition to the idea of building LNG import facilities in Bahamas, running a pipeline under water over to Miami, BP, BP-Amoco is talking about an LNG facility in Tampa.

Where else? I sort of when preparing here, how many coastal states are there total?

MR. OYNES: I believe about 33.

MR. BEALE: Anyway, I did a count. Currently, existing terminals, proposed terminals, and discussions of proposed terminals, right now, there is at least 13 states that are being looked at right now today. As I say, you tell me. You may have heard other things. Other people are coming to you all. I have got a list of 13 states right now.

Security issues: Like I said earlier, it all changed on 9-11. We have to rethink everything from that point forward. Are LNG facilities and LNG ships targets? I certainly don't know. Certainly the City of Boston thinks they are. You have on one hand, time bomb, that situation I talked about. On the other, I don't know right now. I mean, if anybody was hoping to get a great glimmer of how the LNG world right now should protect itself against events like September 11, today, I don't know.

I do know how the ships are built. I do know how the facilities are built. I know what it would take to cause a serious incident. That is not going to be something very easy for somebody to do. However, it is not to say it can't be done.

Who would have thought with the World Trade Center. But if I was going to attack something, and I hope there are no terrorists in here taking notes, I would go after one of these. These are in less protective ships, single hull in many cases, smaller, going a lot of places that people aren't paying near as much attention to as they are in Boston. A small gasoline ship coming into an area has a single wall, real easy to penetrate.

So before we get all excited about the potential of LNG, we really have to think about all of them on an equal basis. The Coast Guard has, what is it, 25, 24 hazardous products brought into the United States. They have categorized them. LNG is considered the least hazardous of them all, but it's the one getting the most focus today. All of these are considered much higher hazards by the Coast Guard than LNG.

Lastly, we just have to be vigilant. We have to think differently. We have to may much more attention, pay attention to the details, do things right, not take short-cuts. Thank you.

(Applause.)

MR. BEALE: One other comment, this presentation, if you would like it, just send us an E-mail, and we'll be happy to send you'd a PDF. It is only 300 kilobyte file in PDF format. If you would like it, just e-mail the request.

MR. MARTIN: As I said, we'll go ahead and have Chris talk about some of the pipeline applications they have received in the Gulf in dealing with the OCS facilities and LNG. Then we'll take questions for both Jeff and Chris.

CALYPSO, OCEAN EXPRESS (AES CORP), AND EL PASO NATURAL GAS PIPELINES - CHRIS C. OYNES

MR. OYNES: The focus of the first gentleman's presentation was sort of a universal look but a heavy concentration obviously on LNG terminals. What I would like to do is focus on some specific applications that have come into the Gulf of Mexico region, part of MMS that deals with turning LNG back into a gas and therefore has jurisdictional issues that are live right now in front of MMS.

So, as we had heard, the regassification-type process is what is being used here. And, again, these can be used for possibly supply, but more importantly for peak supply, as the gentleman indicated. That would be the most likely.

One project that I specifically wanted to focus on is what we call the Calypso Pipeline Project. This proposal is filed already with MMS; so it is a live project. It is filed also with the Federal Regulatory Commission, FERC. Calypso is a project by Enron, one of the big gas companies. It would be an LNG terminal in Freeport, Bahamas, and would have a pipeline that would go from Freeport to Port Everglades, which is the point just north of Miami.

The bottom line on this is, the project itself is a 24-inch pipeline 90 miles in total length. The Bahamas are quite close to the State of Florida, would transfer possibly up to 832 million cubic feet a day of gas. And you would directionally drill the onshore approaches to minimize environmental effects. This is onshore approaches for the pipeline.

This gives you a little bit better idea of the location. And the LNG facility, the terminal would be in Freeport in the Grand Bahama Island, and it would transverse this somewhat deep water, you can see here water depth in feet, 2400 feet, and then coming back up to shallow to Port Everglades just north of Miami.

So as a result, what you end up with is there are several jurisdictional questions and issues that need to be sorted through, none of which are unsolvable, but simply this has some unique particulars.

You have 24-inch line in 54 miles in the Bahamian waters within their jurisdiction. And then you have the 24-inch line continuing for another 41.7 miles that is under U.S. jurisdiction, under FERC's jurisdiction, 5.8 of which are onshore, and 35.9 of which are offshore. So what you have is an international project involving another country, a Federal Energy Regulatory Commission project, a state project, and an MMS project, since we would issue the right of way for that pipeline in the OCS portion of the project. So this obviously needs a great deal of coordination and leads to several steps that have occurred.

This just simply summarizes the mileage again. As you can see, the bottom line is FERC has agreed to serve as the lead agency for this application. The application was filed by Enron before both FERC, MMS. MMS is serving as a cooperating agency in the preparation of an environmental impact statement on this project.

As I mentioned, the water depths are quite deep. Those are one of the technical challenges, and of course the Gulf Stream current hat flows through is also a technical challenge.

This project was filed in July, and we are proceeding with various steps in the preparation of the Environmental Impact Statement. The Federal Register notice to prepare an EIS was out. There was a meeting just recently in Florida as a public scoping meeting. These are the dates that the companies are using. They would like to begin in November of 2003, assuming they can get all their approvals and actually bring into service in 2004.

Another project also involving somewhat of the same area is the AES, the Ocean Express Pipeline, which would come from also the Bahamas but from a manmade island called Ocean Cay down here just south of Freeport and would also transverse into an area close to Port Everglades, the same city that the Calypso Pipeline is proposed to go in.

This one has not yet been filed with MMS. We had an extensive briefing at our regional office here probably a month ago, and you'll see an outline of the schedule. Basically, the first of the year, they are going to file with MMS and FERC this proposal. So the proposal is to originate in Ocean Cay, a 90-acre manmade island. There would be a two tank, 2 million barrel LNG storage, 24-inch pipeline, 70 miles, 800 million cubic feet. They would also have an undersea electrical transmission line. So it would ship electricity directly to Port Everglades or that area.

Their plain, which is probably a little optimistic, is to be completed by 2004. Again, this one has not been formally filed with MMS, but we expect it somewhat soon. So we are expecting this in January. Again, it would involve the right-of-way application for a pipeline with MMS. FERC has basic jurisdiction. Of course, it involves state waters and state lands, state area.

The State of Florida would be heavily involved. You can see the outline for the rest of the project. A couple of other groups have had discussion about regassification projects along these same lines in the same area, that is, using the Bahamas and going to a point north of Miami. Gaz de Franz, big gas company in France, has talked to us about it. El Paso recently had a press release talking about doing something similar in this area. As near as I can tell, they are not as advanced. They have not come and given us specific briefings. They have not proposed specific timelines. As in the case of Enron, they have not filed actually with MMS various proposals.
That's all I have. It is considerably shorter, but it hopefully builds off of the other presentation, and more importantly gives you that these are live projects on our doorstep right now, others very shortly going to be on our doorstep in terms of MMS working through various analysis and Environmental Impact Statements. Thank you very much.

MR. MARTIN: I guess we are open for questions. And whenever you do, would you identify yourself again, which of the speakers. Larry, I guess I can see your hand up. These eyes aren't as strong as they used to be.

MR. SCHMIDT: Larry Schmidt from New Jersey. Question for Chris. What role would the U.S. Army Corps of Engineers have? You claimed right-of-way jurisdiction. Would the Army Corps of Engineers under Section 10 of the Rivers and Harbors Act require permitting for the actual construction of the pipeline to the EEZ?

MR. OYNES: Larry, to be very honest with you, I don't know that answer off the top of my head. I believe there is some permit they also are involved in, but I am not certain of that off the top of my head. I apologize.

MS. KALLAUR: Carolita Kallaur. I have a question for Jeffrey Beale. Why do you think there has been so much controversy regarding LNG shipments into Boston? Is it because of the route that must be followed that is so close to areas where people live?

MR. BEALE: I guess the first thing would be yes. I think the answer to your question is yes. The reality of it is today, that terminal could never be built there. Although, by code, everything that is there is acceptable. I'm just

saying the political reality is, you would never permit an LNG terminal to be built where you bring ships through a downtown area, most likely. I don't know how great I am at predicting.

But, clearly, the terminal in Boston is unique because all of the other terminals, none of them go by large metropolitan areas. Ships never pass by a large metropolitan area, other than coming in at Newport News, there is a lot in that area where the ships would come up into Cove Point, but nowhere else do they get near large metropolitan areas. I think that is the real issue.

MS. KALLAUR: My second question, is there a price at which it is economic now to build LNG facilities in terms of natural gas per Mcf?

MR. BEALE: Is there a price in which they are economical? The only reason everybody is doing it is because it is economical.

MS. KALLAUR: Yes. Is it $3.00?

MR. BEALE: Oh, a specific price?

MS. KALLAUR: Yes.

MR. BEALE: No. It's a Delta, for example, the Henry Hub price. It is based on whatever the current price is. Obviously, you have to predict in the future. It is some Delta to the current Henry Hub price, basically, what can you bring it in for and then recover cost of all the infrastructure.

MR. OYNES: If I might add, I think one of our other speakers a little bit later, Keith Couvillion from Texaco, is going to talk upon at least briefly the economics of their project, give us some idea on that.

MR. SKINNER: I'm Tom Skinner from Massachusetts. I just want to build a little on the previous question and also ask about exclusion zones. I think the point you made about Boston not being perhaps the best site for this type of facility is a good one. In terms of the situation in Boston, it's a very visible presence that an LNG tanker has. It literally goes right through the downtown area, over eight lanes highway tunnel, two subway lines, and under a six-lane highway. So it sort of makes its way like a giant, I won't say dinosaur as a reflection of the industry, but it is this great, great big thing that passes in front of everyone. It is very difficult to sort of slide one of these things into port without anyone noticing.

And of course there was one in the port on September 11th, which was very quickly hustled out of the harbor.

I would also make the point that I think was very good, which was the concern about LNG has led to some design characteristics recognizing some issues with LNG. I think those are important to recognize.

The port of Boston was closed for LNG tankers for almost two months as people in the security field reassessed what was the safest way to bring a tanker in. And that goes along with the whole idea of risk analysis, and I know everything has some risk.

My question really is on these exclusion zones because that's I think a concern in the port of Boston where you do have a tanker going over and under so many different arteries through the city. Is that something we should be more concerned about or can you give me sort of more information on how these exclusion zones work.

MR. BEALE: The exclusion zones frankly have only to do with the facilities. When you talk about exclusion zones, you do studies based on vapor dispersion. And exclusion zone defines the point at which the vapor is at one half its lower flammability limit or two and a half percent methane or it is a fire radiation study, which has to do with how far away, and basically the public and everything else has to be at a point of, for what it is worth, 1600 Btu per hour per square foot, which basically is a hot sun, maybe a little hotter than that. Anything off the property would never see anything higher than that. Now, that is the facility.

The ship itself, there are no specific exclusion zones defined. And part of that reason is, in order to do these initial exclusion zones studies for facilities, you have to define a credible incident. That credible incident nominally is 10 minutes of the maximum flow of LNG a spill, an uncontrolled 10-minute spill.

In my world, that is not credible; but in terms of the code, that is the credible situation. With the case of the LNG ships, they are not pumping LNG. There is no LNG in the deck piping. The only LNG in that ship is down in the tanks. So how do you define a credible spill? I'm not trying to avoid the question. The fact of the matter is, it hasn't been addressed.

I think that is one of the things that sort of came up in Boston. We said, Now, wait a minute. This has never really been looked at. So how do you know it is safe? That, again, is part of September 11 thinking. Nobody would have thought that these kinds of things would happen; so they weren't concerned about what is credible. So what it the credible incident involving an LNG ship and what is the exclusion zone? You are asking me the question, and I am telling you I don't know today.

MR. SKINNER: Were you involved in any of the discussions in Boston?

MR. BEALE: We were in the background providing supporting information, yes. Let me be very frank with all of you. I was providing factual information; but, for the life of me, I don't know how I felt about the situation. Again, I cannot stress more how everything changed on the 11th.

MR. SKINNER: Thank you.

MR. BAIRD: Mr. Chairman, I have a question. Brian Baird from California. On the exclusion zone issue, the Liquefied Natural Gas Act of 1977 in California set up statutorily mandated safety areas when they were considering both onshore -- well, it only applied really to onshore facilities. But my recollection was there couldn't be more than 10 people within a one-mile radius of the facility, and I think you couldn't have more than 60 people within a four-mile radius of the facility, which obviously brought into question all sorts of things.

But I was part of the LNG siting team for two years. I did primarily the offshore siting process, which, interestingly enough, I think if anything does happen in California, you are probably going to see, and what I have seen little glimpses of have been offshore receiving terminals, single point mooring facilities, et cetera. It was extremely controversial. I also did my thesis on liquefied natural gas; so I'm well aware of all the arguments about explosions and so forth.

So, like you, I don't know what the events of September 11th are going to do to people's thinking about this sort of thing. On the one hand, yes, we need to have a better conveyance system for energy coming into this nation. On the other hand, it looks like a target. So who knows. Anyway, we defined this experience many years ago with trying to site this critical facility. I think what ultimately happened is the Point Conception facility, the economics at the time just ultimately weren't going to work out.

MR. BEALE: I don't know if the parties just didn't get tired. It started in L.A. and went to Long Beach and Oxnard and kind of fell off the world at Point Conception.

MR. BAIRD: My thesis was on the Oxnard thing.

MR. BEALE: Well, I would like to just follow up. Again, I don't know specifically the code you are talking about. The codes are not as specific as what you have said, in other words, X number of people within a given distance. The codes are based on, looking at a credible incident, what is the impact of that incident and then making sure there aren't people, property, et cetera, within that exclusion zone.

To just automatically set out a distance from a LNG terminal is grossly unfair. For example, to build a full containment LNG tank that can take the impact of a 747, why would you then restrict, you know, the distance to a mile or four miles or whatever when, in fact, that is a facility with -- you know, it's not credible. It can be penetrated. So it is not credible that you could have an incident that would result in exposing the public to risk.

So you can't really base it purely on distance. You have to base it on exposure and potential.

MR. BAIRD: One other follow-up, if I could. I think the rationale at the time, whether flawed or not, I don't know, you know as well I do, at least back then, you had every risk analyst on the planet looking at these things and under these all sorts of different weather conditions and wind conditions. And there were some people at the time saying a LNG cloud would create its own inversion layer and move 30 miles. You would tend to hit an ignition source before anything is going to go 30 miles. Those were the sorts of numbers that were being thrown around at the time, I think.

MR. BEALE: I would like to follow up on one more comment I made earlier, talking about the T-boned ship and so forth. The reality of it is, if you had enough energy to penetrate a LNG ship, you would also have the energy that would create the heat that in fact would ignite it. So the risk of T-boning a LNG ship and having a vapor cloud drift is extremely remote. What you are going to have if such an occurrence should occur is a tremendous fire but local to the ship. The vapor cloud scenario I don't think is credible.

MR. KELLY: Paul Kelly, Offshore Support Industry. A question for Chris. Chris, in some of the publicity that surrounded an announcement by one of the companies that is interested in projects on both coasts, the West Coast and Florida east coast, when the company was justifying this potential investment, they mentioned that, due to access, the lack of access to federal public lands, there would be no way we could reach the kind of natural gas growth that the country is forecasting for the next ten years, and this was a reason for their interest in the project.

I was wondering if you have heard any references to this kind of strategy in any of your deliberations on any of these projects.

MR. OYNES: Not at that level. A more localized level is that I think I have heard three presentations, Gaz de Franz, Enron, and AES, and all three of them is my recollection have talked about potentially this was more than peak supply in Florida; that is, high on their list was the conversion and new construction of electricity generation plants in Florida, that there was no conceivable way that the supply was going to be there.

And, of course, that is a lot of forward thinking as to whether how much of that might really occur, but certainly, in their presentations, that was one of the things that was uppermost in their mind. It wasn't going to come from somewhere else. They had to have some alternative supply, alternative sources.

MR. VILD: Bruce Vild, Rhode Island. This question is directed to anyone in the panel who might want to answer it. How is a major spill of LNG treated? It doesn't sound like you want to contain it necessarily because you are getting into some dangerous territory if you do that. How do you handle a major spill of LNG?

MR. BEALE: Frankly, you don't. Again, it is not oil. It is not going to hang around for days and days and days. It is sitting on water that is 300 degrees hotter than its boiling point. It is just like putting water into a 500 degree pan and expecting it to stay water. It doesn't. It turns into steam and leaves. Methane, LNG will do exactly the same thing.

The only real question will be how far would it spread before it evaporates? And, again, that depends how fast the LNG is released from the vessel will determine how far it will spread before it evaporates. There is no LNG spill response on water.

MR. VILD: What about if you have a tank on land, what do you do then? Do you just let it evaporate? I'm curious.

MR. BEALE: If you had a catastrophic rupture, which, again, I don't consider credible, but that is irrelevant, around that tank would be a diked area large enough to handle 110 percent of the maximum volume in that tank. It would dump into that area. Initially, there would be a huge vapor cloud involved. Then the ground freezes and gets extremely cold and basically serves as an insulating barrier. What you have is a huge bowl of LNG boiling and a vapor cloud distance much reduced at that point. You have a vapor cloud, and it will stay that way until it totally evaporates, and come back two days later, and it looks like nothing ever happened. That's the response.

Now, let's talk credible for a minute. If you had a credible spill, and that is you had a gasket and a valve body or something blow out and it took, let's say, 10 minutes before the low temperature detectors or the gas detectors went off, which, again, not credible, let's go with that.

You are unloading a ship 50,000 gallons a minute. That hole is big enough to dump all 50,000 out, which, again, not credible. Again, let's stay with that. So you have got a half a million gallons of LNG. That's the size the subcontainment is in fact designed for in an LNG transfer system. That system may have insulated concrete.

So the initial, when the LNG first hits it, it is not like hitting pure concrete. It is actually an insulating concrete, which keeps down the rate of vapor generated. Then you also have high exfoam generators. High exfoam basically is a soap you mix with water and blow a fan across, and it takes that soap and expands it to 501, and it lays on top of the LNG, which serves as an insulating blanket.

So, in the credible incident, you have a spill of LNG, you have it contained, and then you cover it. What you get is a vapor cloud, but it doesn't drift more than, at most, at absolute most a couple hundred feet. And, if ignited, you don't have the intense fire because you have got the foam laying on top. That's the response to a credible LNG spill.

MR. VILD: And, in two days, it's gone.

MR. BEALE: In that case, it might last longer, because you are somewhat insulated.

MR. VILD: So the whole strategy is to keep people way if the accident occurs and let nature take its course.

MR. BEALE: Right. All of these facilities are also outfitted with emergency shut-down systems. And whether you are talking LNG or you are talking about natural gas, you stop it. If it was a fire, for example, you don't normally put out a natural gas fire or an LNG fire. You cut off the source.

That is what all the emergency response, emergency shut-down systems are geared to do, is to isolate the system absolutely as quickly as possible. Basically, they all have pre-alarms allowing the operator to jump in and do it. And if the operator does nothing, then there are fail-safe back-ups that then will kick in after cross-zones.

That is, for example, if you had a flame detector or two flame detectors. Let's assume it's a fire. The first flame detector picks up a fire, it is going to give you an alarm. The operator looks at a monitor and he sees a fire, he can ESV.

Let's assume he's not there for whatever reason. The second UV detector will be cross-zoned. We are looking at that same area from a different angle. You get two UV detectors, you get an emergency, you get a shut-down right now.

So whether it's fire, gas, low temperature, which is another great way to look for LNG, you don't find minus-a-hundred-degree-days. So if you have got a minus hundred degree temperature switch at the bottom of a pit and LNG is present, it is going to kick off, and it is going to shut down the facility. So there are a lot of fail-safe mechanisms. There are credible spills. And that's the response.

MR. OLTZ: Carolita.

MS. KALLAUR: Carolita Kallaur. This is a jurisdictional question. What agency sets the requirements for LNG ships, and which agency sets requirements for LNG facilities?

MR. BEALE: As far as the ships go, there are a number of different certifying bodies. Lloyds of London, ABS, et cetera. There is no USDOT.

MS. KALLAUR: It is not like the Coast Guard?

MR. BEALE: The Coast Guard inspects them. They certainly can turn a ship away if it doesn't meet their criteria. I don't believe, and I could stand corrected by someone who knows better, but I don't believe the Coast Guard certifies, that is, goes out to a new ship and gives it a certification and says, yeah, you can go in U.S. waters.

Any time a ship shows up for the first time in a given port, the Coast Guard will go out, and they'll inspect it and say yeah, you can come in today. I don't think they give it a blanket you can come in any day.

As far as the terminals go, the U.S. terminals, U.S. standard or code is 49 CFR part 193. That is everything from the isolation -- let me go back. From the pier, from the unloading pier to the last isolation valve before the LNG tank is U.S. Coast Guard jurisdiction under 33 CFR-127. From that valve to the rest of the facility up to the last valve before it leaves the facility as gas falls under 49 CFR part 193. When it turns into gas and leaves, it is part 192.

MR. OYNES: Who was that on that last two?

MR. BEALE: Oh, the DOT. I'm sorry. Then most of the part 193, they call it shorthand, the LNG code, has now in fact begun adopting NFPA, National Fire Protection Association, 59A, which I just happen be to be a member of that committee.

That is now really and over the next couple cycles, I think you will find that part 193 will in fact virtually adopt 59A. So NFPA 59A, which is in fact more, if anything, the worldwide LNG standard, will become the LNG design standard in the U.S.

MR. OLTZ: George.

MR. BANINO: George Banino, Marine Mining. I have a question regarding the various pipelines proposed to bring LNG into Florida. It would make most sense, it would seem to me, to have the off-loading facility right onshore in Florida. I assume the reason for that is various political reasons. But I would be curious to know what some of those reasons are and what some of the arguments are that led to bringing the gas to an island that may be 90 miles away. And the reason that is of broader interest than just Florida is because, if people are considering all these proposed terminals, how do they deal with those same concerns and issues?

MR. OYNES: I certainly don't know what I would call other reasons that may have driven these proposals. I know, as an example, that both in the two pipelines, regassification projects in the Bahamas are also driven by port accessibility, port-design-kinds-of-questions. And whether that was really strongly determinant, it would be harder to bring it to Miami or Port Everglades and have a terminal there.

I'm not as familiar. They just presented it. This is their proposal. So they had sorted through those particular projects. Both of them indicated that sort of a more isolated area and a harbor-type arrangement was a factor in the choice of having the regassification plants offshore Florida.

MR. BEALE: I could add to that, having been involved in some of those on an early days feasibility looking. If they believe they could site a facility in Florida, they would absolutely have sited the facility in Florida.

It is a political issue. It is not anything but a political issue. And so, in other words, to get around it, you've got to go offshore to bring the gas onshore. Clearly, if they could have done so in Florida, they would much prefer that over a 90-mile pipeline across the 2500-foot deep trench.

MR. OLTZ: Any other comments or questions?

MR. MARTIN: Let me get in here. As a good moderator, I have got to keep going a little bit. We heard this morning about the gap, and the expression of the speaker was that LNG will not play much of a future role in supply of gas other than peakshaving. I guess I would ask Jeff to comment on that a little bit.

Do you see its role still being peakshaving or do you see LNG starting to play more, and particularly with the electrical cogen plants, more of a supplier in source?

MR. BEALE: When the presentation was made this morning, that 20 percent, just for what it is worth is 1700 LNG ships a year. So the fact of the matter is, LNG cannot make up that 20 percent shortage, but I think it can reasonably make up 6, 7, 8 percent of that natural gas shortage we saw presented.

LNG is going to become much more of a commodity fuel. It was originally a supplemental supply. They looked at the supply. Gas companies looked at the supply pictures, and they saw shortages; and because of the current regulations on gas and so forth, they couldn't get it. So they went offshore to get it.

I think LNG will just become another supply of natural gas to the United States. It will become far more commoditized, to coin a word, than it currently is. It won't make up the entire shortage, but it will become a piece of the picture and not an insignificant piece of the picture, as it has been for the last 25 years. Yes, it is a player.

MR. MARTIN: Anybody else? Again, I would like to thank Jeff Beale for joining us and Chris and turn it back to the chair.

MR. OLTZ: Thank you, Paul.

MR. MARTIN: I had a real tough job here today.

MR. OLTZ: We'll adjourn for a break for 15 minutes. We'll see you back at 3:05.

MR. OLTZ: Our next panel discussion is on access for offshore energy development, something we are all interested in. I guess, Donna, are you the leader of that motley crew there?

MS. MOFFITT: Yes.

MR. OLTZ: The distal end of the crowd there, Rhode Island and New Jersey. Oregon is okay. They are on that side. North Carolina, well, Donna, I will let you go ahead and introduce your panel, and we are ready to go.

ACCESS FOR OFFSHORE ENERGY DEVELOPMENT STATE POSITIONS ON MORATORIA PANEL

MODERATOR – DONNA D. MOFFITT

MS. MOFFITT: All right. Thank you, Mr. Chairman, and good afternoon, everyone. I want to start with just suggesting that we are going to maybe perhaps change the name of the panel just a tad bit, and we want to talk about the states' perspective on why moratoria are in place and also to let you know, we do not have speakers today from the Great Lakes or from the east or western Canadian offshore. I understand there are some papers on the wall outside this room. If you are interested in those topics, you can pick up those papers, but we will not have speakers on those two topics.

We are going to have a panel of state representatives today talk to you about this issue. We are going to hear from Oregon, Rhode Island, New Jersey and North Carolina. I was asked to chair the panel and pull the group together. And with MMS's help, I have got a little bit of background information that I wanted to sort of lay the groundwork for what you'll be hearing from the state representatives.

In reviewing the background material from the Minerals Management Service, there appeared to me to be a couple pivotal events that seem to solidify the states' growing feelings of disenfranchisement in the oil and gas leasing program. And those two events were the James Watt 5-year plan that came out in the early '80s and the 1984 United States Supreme Court decision on the state consistency review of lease sales.

The Watt 5-year plan was released in the early '80s, and it included a new feature called area-wide leasing. It introduced a concept of area-wide leasing, which considered more acreage for potential leases than was the previous custom.

Then it relied more on industry to choose the areas of interest as opposed to having the government select the areas.

There was generally a negative response to these administrative changes from a number of the coastal states outside of the traditional OCS leasing areas in the Gulf of Mexico. Many states did not like or understand the changes and felt that the Department of Interior was intent on leasing the entire OCS. In addition, none of the monetary benefits associated with an expanded program would apparently be shared with affected states.

Many states claimed that the new system, particularly the area-wide leasing approach, was not compatible with environmental protection. Many states felt overwhelmed. It hadn't analyzed the Environmental Impact Statements that covered such large areas. I, myself, remember that feeling of having not a clue what to do with these huge documents. I certainly didn't feel qualified myself to do it. And we certainly didn't think that the EISs could adequately identify the impacts or design effective mitigation measures.

Many states also complained that the department did not give their comments due regard under Section 19 of the OCS Lands Act on the size, timing, and location of impending sales. Then, in 1984, the Supreme Court ruled that OCS lease sales were not subject to Section 307 of the Coastal Zone Management Act consistency requirements. When that ruling came out, many states saw the decision as yet another attempt to undercut their legitimate authority to influence the leasing program.

So the states started turning to their congressional representatives. And that was where we started to get early responses to our concerns when the Department of Interior didn't seem that responsive.

Since fiscal year 1982, congressional moratoria affecting one or more of the areas of the outer continental shelf had been enacted annually. In 1990, former President Bush withdrew under Section 12 of the OCS Lands Act the entire west coast, the southeastern part of the eastern Gulf of Mexico and the North Atlantic from leasing until after the year 2000.

Then in 1998, former President Clinton withdrew the areas under the existing congressional moratoria through the succeeding 5-year programs for 2002 to 2007 and 2007 and to 2012. As you heard Ralph Ainger mention this morning, there are now a number of areas that are either under moratoria or withdrawn under Section 12, and these are the North Aleutian Basin, offshore Washington/Oregon, offshore Northern, Central and Southern California, the

eastern Gulf of Mexico with those exceptions that Ralph mentioned, the South Atlantic, the Mid Atlantic and the North Atlantic.

There has been a recent effort to, I guess you could say, test the solidarity of the existing moratoria. I was part of that because I served on the Natural Gas Subcommittee, along with Bruce and Larry. And, in April of this year, we submitted 12 recommendations, only one of which even mentioned the word moratoria. Yet, it seemed to get all the attention.

Then, in May of this year, the OCS Policy Committee amended those recommendations, and they were forwarded to Secretary Norton, who replied to those recommendations on October 4th. You have in your packet of materials those documents, the May OCS Policy Committee recommendations that were sent to Secretary Norton and then her response.

You have already heard about some of what was in the Secretary's response earlier today, but I thought it would be useful in the context of this panel to go over a few of the excerpts from both the recommendation regarding moratoria and Secretary Norton's response.

The Recommendation 11 talked about helping to develop information and enhance an informed public debate on whether or not there were grounds or support for limited lifting or moratoria in existing moratoria areas. And the recommendation specifically suggested possibly identifying the five top geologic plays in the moratoria areas, and then a process would be used that would encourage congressional funding to MMS for the acquisition of seismic data, encouraging congressional funding for environmental and social/human impact studies and establishing a site-specific state consultation process.

The response from the Secretary in her very first sentence I thought was very clear and unambiguous. She stated that the administration supports the current presidential withdrawals and congressional moratoria. And we heard also that these responses were developed prior to September the 11th, although the letter did not get stamped until October the 4th. She may or may not decide that she still wants to support this position. That is yet to be seen. This is all we have to go on at the moment. And, as I said, I think that first sentence is pretty clear and unambiguous.

She goes on to say: If affected states and local officials have an interest in discussing issues concerning the evolving energy/environmental balance, which may relate to restricted OCS areas, the department would clearly be willing to engage in such a dialogue. And she's looking to the committee's assistance in facilitating any possible future endeavor.

But I again take her remarks to very clearly state she's not going to push much further than that unless the world situation changes, I'm assuming, unless we as states come and bring her something or begin the dialogue from our side.

So what I'd like to do now after kind of laying that brief background for you, that groundwork for you, is to move to the panel, move to the panel members and hear their views on why moratoria are in place and then whether any of these four states have any intention of taking up
Secretary Norton's offer to begin a dialogue.

I think we'll start with Nan Evans from Oregon, and let me just give you some introduction to Nan. She is currently the manager of the Oregon Ocean and Coastal Resource Management Program in the Department of Land Conservation and Development. She's been with that program in this time period for about a year.

Prior to that, she managed the Oregon Parks and Recreation Department's policy and planning functions, and she was in that position about six years. She also advised the governor on all state natural resource agency budget appropriations for about four years in that position. In the mid '80s, she was a senior policy advisor in NOAA's office of Ocean and Coastal Resource Management specializing in federal consistency issues under the Coastal Zone Management Act in Washington, D.C.

She has two MSs, one in biological oceanography and one in marine resource management, both from the University of Washington. Nan.

WEST COAST STATES' PERSPECTIVE - NAN EVANS

MS. EVANS: Thank you, Donna. I was asked to participate in a panel to give you a bit of perspective or contextual information relating to the Pacific Northwest. I can do that fairly easily for Washington and Oregon because the two states have approached this issue fairly similarly. I can make a few comments in general about California, particularly Northern California, and if we want take go into details of the State of California, Brian Baird is here and could speak to that.

I think the best way to sort of describe the position of certainly the States of Oregon and Washington and California, as well, regarding the moratorium is it's the states' position that these kinds of decisions need to be made based on sound information, balanced weighing of factors, and they need to be collaborative.

The environment that exists in sort of the Pacific Northwest and northern California, a few quick comments, physically, of course, it is a very narrow continental shelf. It is a tectonically active area. That also includes southern California, as we saw last night. It is an area that is actually relatively low in oil and gas resources. Oregon is a net exporter of hydroelectric power, but not certainly oil and gas.

In the State of Oregon, we have one very tiny natural gas field on land, and that is it. In terms of social or political components, it is interesting, if you look at the Pacific Northwest coast and the northern California coast, it has relatively small population. There are large populations centers in Puget Sound and certainly a large population center once you get to the San Francisco bay area. But other than that, it is a relatively lightly populated coastal area.

In some sense, this means that some of the people who live in coastal communities sometimes do feel disenfranchised by the influence of larger populated areas, the influence of people with essentially more political clout. The coastal economy is primarily resource based, fisheries, forestry and recreation and tourism. And each of those economies, particularly the first two, have gone through several decades of quite a bit of chaos, some threat to the resources, and some very significant restructuring of the economies as the dependence on fisheries and forestry has decreased.

So that adds to the nature of the political environment. Another thing about the Pacific Southwest is I think it's a very fair statement to say that there is a very strong sense of public stewardship, particularly for the oceans. In the State of Oregon, this is reflected very clearly in the fact that all of the beaches have a public easement. They are public beaches. Whether they are owned by the public or not, the public has a right to use those beaches. That is all 365 miles.

Also in the Pacific Northwest, there is another political element, and that is tribal interests. The tribes are sovereign nations and are treated as such, and this becomes very important, particularly when we deal with natural resource issues, especially fisheries.

Another perhaps comment about just the setting is the transportation system in the northwest is very linear. There is a small highway, two-lane for the most part, that parallels the coast; and then there are relatively few places where you can get over to the coast.

In the State of Oregon, I think there are probably five state roads that cut across the Cascade Range that can get you from the interior of Oregon to the coast.

In the state of Washington, I think there are maybe two, count three if you want to go around the edge of the Olympic Peninsula. It is a particular kind of setting that is remote in some interesting ways.

Now, with that as sort of a background, the states, I said, are interested in informed balance and collaborative decision-making.

In 1990, and I am realizing when I was first asked to talk about the states' position on the moratoria, I said, well, nothing has changed in 10 years. In fact, nothing has really changed perhaps except September 11th, and I will mention that in a minute. But, in 1990, there was a task force, and I will sort of give you some background, pass around this. There was a Pacific Northwest OCS task force sponsored by the Department of Interior. It looked at the issue of oil and gas development off the northwest coast.

As a result of the work of this task force, a number of significant studies were identified. And an agreement was reached and position was reflected both in MMS at the time and I think probably still, I hope still, and the states, that, in order to make an informed decision about oil and gas development in the outer continental shelf, there was simply not the information, and a study program was designed. And the agreement was reached between the states and the Department of Interior that said, Gosh, we need the information first.

The practical aspect of this is, once you put a dollar tag on what getting that information would cost and compare it to how much oil and gas might be developed, I think that is probably what is behind the fact that none of those studies have really gone forward.

So we are in a situation now where 10, 11 years down the line, we still feel that, as states, we don't have the kind of information base that would allow an informed decision. And what I passed around is a joint letter from the governors of Oregon and Washington to Secretary Norton from last January that essentially just reiterates this position that says, to make these decisions, we need better information, and until we get the information, we believe the moratoria should stay in place.

The sort of other couple of pieces I might suggest here, I think the states are very much interested in, not only informed decision-making, but a balanced decision-making. We saw the language in the law earlier today which talks about a balance between the potential for oil and gas discovery and the potential for environmental impacts or adverse effects on the coastal zone. I think that is fundamentally where the states are, is needing to know and weigh that decision.

In the State of Oregon, there is an ocean management plan that extends across the continental shelf. And, within that, there is a territorial sea management plan that in fact as state policy then reflects this notion of balance, informed decision-making, and until we have more information, the support for the moratoria.

I feel sort of compelled to say something sort of the post September 11th comments. Everyone has that in their minds. Clearly, our governors haven't taken a position. But I think the events of September 11th probably make it even more compelling to make informed, balanced and collaborative decisions. And I think that is true because we are in an environment now where everything has changed, and we will need to make decisions on investing our national, state, private resources and in a lot of competing areas, defense, homelands security, transportation systems, protecting existing energy systems, health, social services, foreign aid. And I think it is probably very important that we weigh all of those things and not look at a single answer, such as lifting a moratoria as a solution, because I don't think that is what it is. So I think that comes back to the notion of sort of informed, balance and collaborative decision-making.

I think that is about all I have to say.

MS. MOFFITT: Thank you, Nan. If it is all right, Mr. Chairman, we should hold questions until all the panelists have spoken. Okay. We'll now turn to a state in the North Atlantic region, and Bruce Vild is going to be speaking to us from that perspective. He is Rhode Island's alternate member on the OCS Policy Committee. He has represented Rhode Island on this committee for 17 years. He started in state service as an advisor to the Rhode Island governor's policy office on offshore drilling in 1979 when the Georges Bank and Baltimore Canyon were actively being explored or at least considered for exploration. He was active on regional technical working groups at the time.

He has a B.S. in biology from Villanova University and an M.S. in Marine Botany from the University of Rhode Island and a Masters of Marine Affairs also from U.R. Bruce.

NORTH ATLANTIC STATES' PERSPECTIVE - BRUCE F. VILD

MR. VILD: Thank you, Donna. Donna, I think you were right on the money when you said that a lot of the origins of the moratorium really came from the gauntlet that was thrown down by the Secretary of the Interior in the early 1980s. It was a response. It was perhaps not the best way to do business, as I'm fond of saying when I talk about the moratorium, but it was a very effective way of doing business.

Actually, you could look back several years before the Reagan administration to take a look at what I think are the real origins of the moratorium. Before the moratorium was in place, lease sales would be challenged on a case-by-case basis in court. Certainly, that was the case in the North Atlantic.

The states did not exactly move in lock-step formation. Rhode Island, for example, had the unique position of supporting offshore drilling. We did that for our own purposes, quite frankly. We had a Navy base at Quonset Davisville in North Kingstown, Rhode Island that we had gained possession of in the mid 1970s, and we were having problems filling it. We wanted to develop it as an industrial park. We only had a few tenants, and its particular location seemed to be particularly beneficial for offshore drilling, not only in Georges Bank, but also in the Baltimore Canyon.

If you take a look at a map of the northeast United States, you would find that Quonset Davisville is actually equally distant between the Baltimore Canyon and Georges Bank. So we had the unique position of being in favor of the first Georges Bank lease sale and the lease sales that followed it.

We would file an amicus brief along with the oil companies and the Interior Department when the lease sales were challenged by the Conservation Law Foundation and the Commonwealth of Massachusetts.

What I think the moratorium has done is it has deferred political decisions that I think eventually are going to have to be made. Rhode Island was always in favor of taking a look at the lease sales and commenting on the size, timing and location, proposing lease stipulations that we thought were important, trying to get certain areas excluded; but we also fell into the habit of calling these deferrals, as if we would, you know, reconsider them for the next lease sale. Obviously, we wouldn't.

Those areas were areas like submarine canyons where there was a very important lobster population that in fact inter-bred with the inshore lobster population that our fishermen were after.

The Commonwealth of Massachusetts wanted to protect their fishermen, and we wanted to protect ours, as well. It just so happens that there were no Rhode Island fishermen really on Georges Bank.

So then comes along the moratorium.

The first moratorium, I think that started off with a dear colleague letter that was circulated among several different congresspeople. The Junior Congresswoman from Rhode Island, Claudine Schneider, signed it. There was no consultation whatsoever with the governor's office. Again, at the time, the governor was very much in favor of offshore drilling, you know, with the stipulations.

And that is a pattern, and I don't know again if that is unique to Rhode Island, but that is a pattern that has actually continued as the moratoria have been continued from year to year.

There hasn't really been any consultation with either my office or with the governor's office on whether the Rhode Island congressional delegation should continue to support it.

Would I be in favor of lifting the moratorium? Well, I don't know. The fact remains that the groundfisheries in Georges Bank are in the process of recovering, but the question has to be asked: Why jinx that by having offshore drilling there or supporting offshore drilling there?

That is kind of a conflict I have in my own mind. And there certainly a conflict I'm sure you know congresspeople have. Is the lifting of the moratorium really worth the political risk? I would think that the only time that would

happen is if there was really demonstrated beyond a shadow of a doubt, quite frankly, that there was a compelling need to go after the oil and gas that might be there. This is predominantly a gas province. So we should probably talk about gas.

On the other hand, I don't really buy the argument that kept on coming up in the popular press in the late 1970s in 1980s that Georges Bank drilling, and drilling in a lot of other places, really was a matter of fish versus oil when we in Rhode Island were actively supporting offshore drilling. And, you know, we thought we had the scientific information to back us up, you know, as well as the political will to have this done.

Well, this is just the sort of thing where it becomes difficult for me to speak for the present governor on this or for any other governor on this. I just want to leave you with the idea that the political risk has to somehow be factored into our discussions of what we can do to lift the moratorium. There has to be a compelling need demonstrated that we have to go after this particular resource. And until that compelling need is demonstrated and accepted by Congress, I think you are going to have a continuation of the moratorium, and you are going to have a situation where the congressional delegations are going to be motivated more by their own feelings than by any consultation with state government.

That's the situation in Rhode Island. I don't think it is unique to Rhode Island. I will just leave with that.

MS. MOFFITT: Thank you very much, Bruce. We'll now turn to Larry Schmidt with the New Jersey perspective. Larry is a 33-year career employee of the New Jersey Department of Environmental Protection. He served in a number of capacities primarily involving the environmental review of major construction projects, land use planning, permit coordination, program management, and special project assignments.

He has responsibility in coordinating the department review of federal actions requiring environmental impact statements under the National Environmental Policy Act and state construction projects under a state mandated environmental review process.

He's now responsible for administering the state's coastal zone management program, which includes coastal and ocean planning, plus the administration of close to 3 million per year in federal CZM funding.

He also has the distinction of graduating from the same University I did, North Carolina State University in Raleigh. Larry is one of those unique New Jersey folks who came to North Carolina to take advantage of our higher education system and went back home. Most of them stayed. So, Larry.

EAST COAST STATES' PERSPETIVE – LARWRENCE C. SCHMIDT

MR. SCHMIDT: Thank you very much, Donna. Listening to Bruce Vild's remarks, they are very, very similar to what I'm going to say in terms of the political realities of offshore oil and gas exploration and development on the East Coast.

For the past ten years, the issue of offshore oil and gas exploration has been a political nonstarter. And when I say this, my observations of elected officials is, in New Jersey, that there is no upside. There is no upside for an elected official to support exploration. There are no votes associated with supporting new energy sources off our coast; whereas, there is tremendous support for elected officials that promote the preservation and enhancement of the state's coastal resources.

For example, about a month ago, I was at the 10th annual meeting of the New Jersey Shore Partnership. This is a group of public and private sector officials that have come together primarily to secure federal funding for beach nourishment and shore protection projects primarily through some of the good work that the Corps of Engineers in the State of New Jersey have done in this area.

As part of this program, the organizers had videotaped presentations from three of our four New Jersey shore congressional representatives. And they all spoke about how hard they had worked for getting funding for beach nourishment and shoreline improvements in New Jersey; but I was shocked that two out of three went out of their

way to take credit for running those rascals from the Department of Interior out of the state this past year when they attempted to lift the moratorium and promote the idea of offshore oil and gas exploration.

So I think my take-home message is that, no matter whether or not the governor or the state agencies/state legislature would even be willing to consider the issue, you have to go through the state's congressional delegation first. They are the ones that are on the front line with federal activities. They are the ones that control the purse strings. And if there were not a moratorium from the president, they would continue to exercise the annual moratorium through the appropriations process.

So I think this is true with a lot of states that have to deal with this issue. It never really substantively gets to the governor's office or to the Department of Environmental Protection.

The rationale that I hear from our congressional delegation and those that oppose offshore oil and gas and the continuation of moratorium or even a permanent ban on any potential for drilling on the Atlantic is that they are there to protect our beaches, our coastal resources, coastal tourism, and commercial and recreational fishing. In New Jersey, this represents anywhere from 12 to $17 billion per year into the state's economy.

I personally don't blame any of the officials, the elected officials for taking this position, because, as I said earlier, there is just no upside and there are no votes associated with supporting the program.

And I also think that even if you were to come along with something like OCS revenue sharing that, no matter what that amount of money would be, it would not win the day in terms of the perception of the citizens as to the potential threat associated with oil and gas activities.

Very briefly, I would like to give you a historic overview of New Jersey's role with oil and gas in the mid Atlantic area. We were very familiar with the issues associated in 1973 with the Arab Oil Embargo. And following that, the thrust was to create a system where we were energy independent and that all of the states had to be supportive of developing domestic sources of energy, because we couldn't be put in the same positions we were in 1973 with foreign countries and cartels dictating our energy futures.

So with that in mind, we developed a series of rules and policies in our state coastal zone management program. And those rules and policies basically said that we encouraged rapid development of the OCS oil and gas resources as long as it was done in an environmentally accepted manner and protected coastal tourism and fisheries.

We went through the late '70s and early '80s with industry activity. There were 32 wells that were drilled off our coast. And industry sort of decided that the timing was not right, and the resources they expected to find off our coast did not materialize. So they sort of packed their tents and went away in the early 1980s.

For the rest of that decade, things were rather quiet. And then Governor Jim Florio came on the scene in 1991, a very liberal former Congressman, who had very strong views from his congressional perspective before he became governor.

Like what Bruce was describing, there was no consultation with the Commissioner of the Department of Environmental Protection. He took the bull by the horns and wrote to then Secretary of the Interior Lujan.

I pulled out one of his statements to show you how strident he was. He said offshore oil gas drilling is an idea whose time has come and gone. It is a time that we get serious about conservation and alternate sources of energy rather than looking at risky ways to get more oil.

So that set the tone for a reversal of our state policies and regulations from encouraging to discouraging. And since we were subject either to moratoria or lack of industry interest, that position has carried forward to the succeeding administration.

When Governor Whitman was appointed to the position of the administrator of EPA under our state constitution, the president of the state senate becomes the acting governor. And, coincidentally, the second day of his term as acting governor was the last day for comment on the forthcoming 5-year plan. And, again, taking the same page from

Governor Florio, he drafted a letter stating his unalterable opposition to offshore oil and gas development for basically the same reasons that we have heard over and over from our congressional delegation, that the risk to our beaches and our coastal economy was just far too great.

I don't think we have the opportunity to have rational conversations about this. I'm always amazed, because if we were to do as a state a comparative risk analysis on the risk to our beaches and our coastal tourism from offshore oil and gas activities, which incidentally are 75 to a hundred miles from our coast, with a prospect of finding natural gas, not oil, but notwithstanding that, the risk of an accidental spill from marine transportation would come out to be far greater.

Based on some of the work I had done in New York harbor, I learned a number of years ago that the Port of New York and New Jersey is the number one port for the transport of oil and petroleum products in the entire country; and the number three port for transportation of oil and petroleum products is Philadelphia, Camden and Delaware Bay. So we have daily transits of hundreds of thousands of gallons of oil and hazardous materials that come by our beaches on a daily basis, but I don't hear any discussion by our elected officials that there is a risk associated to either our beaches or our coastal tourism economy to having adjacent ports. That is sort of the way it is. I don't expect it to change.

Jeri, are you there? Okay. A few years ago, my friend, Bob Stewart, of the National Ocean Industries Association and I always came to these meetings, and we have had spirited discussions on New Jersey's position. For his amusement, I put together a grafting of a newspaper headline and a photo that appeared on the Asbury Park Press. And I think I would want to share it with you as one of my other take-home messages, that this is an undoctored photo from the white sandy beaches of New Jersey, and I can't claim what that structure is, but I can tell you what it sort of looks like. Please take this home as a souvenir of our talk. Thank you.

SOUTH ATLANTIC STATES' PERSPECTIVE - DONNA D. MOFFITT

MS. MOFFITT: Thank you, Larry. I will wrap up then with just a little bit of perspective of the south Atlantic via North Carolina's version.

You may realize that North Carolina is divided into the mid Atlantic and the south Atlantic planning region. So we have been affected by what goes on in both of those regions. There have been four lease sales held in the south Atlantic planning area that were held between '78 and '83. And the 21 blocks of the Manteo exploration unit off the coast of North Carolina were leased in sales that were held in '81 and '83.

The Manteo exploration unit that Mobil Oil attempted to drill in, it has been our most visible activity to date. And some folks may not realize that, shortly after those early '80 lease sales were held, we did in fact issue two consistency approvals for exploration plans off of our coast. And, you know, you always wonder about timing, and neither company took any further action after they got those consistency approvals. They just kind of languished for many years.

The south Atlantic area has been under a congressional leasing restriction since fiscal year 1990. We had a protector in Congress in the form of the late Representative Walter B. Jones, Sr. And he was able to get Congress to pass the Outer Banks Protection Act in 1990. This was after Mobil announced that it wanted to drill off of our coast.

So the Outer Banks Protection Act prohibited the Secretary from conducting a lease sale issuing any new leases, approving any exploration plan, approving any development and production plan, approving any permit to drill or permitting any drilling offshore of North Carolina.

Later that act spawned a lawsuit that made its way to the U.S. Supreme Court, and the leaseholders won and were reimbursed by the government based on the fact that the Outer Banks Protection Act was a breach of contract.

As a result of that, we were left with something like eight active leases off of our coast. And in November, I believe it was November of last year, those eight were finally relinquished. And so there are no existing leases off the coast of North Carolina.

Of course, if the situation changes based on world events and we need to somehow begin to look at the possibility of finding gas off the North Carolina coast again, we would have to go through getting back into the 5-year program, receiving exploration plans, and all that goes along with that. So that is a very lengthy process.

But the early '80s were times of naivete by the State of North Carolina. We weren't that well informed about affects and impacts and what we needed to be looking at for oil and gas activities. We also didn't really realize until the Mobil exploration effort that where Mobil wanted to drill was very near an extremely active and biologically important area for our fishing industry. And so we spent a lot of time trying to gather information on that site and figure out exactly what we have got going on there.

So our information base has improved over time, but depending on where exploration is being proposed or leasing is being proposed, there may be other environmental issues that have to be looked at.

I think the activity that really caught us by surprise as far as moratoria had to do with President or former President Bush's withdrawal of a good part of the OCS in 1990 and the failure of administration to even give a heads-up to the republican governor of North Carolina at that time.

And so he was caught by surprise, and that really got him concerned about, Well, if these other places need protection and need moratoria, then North Carolina must need it also.

So we have sort of been in that position ever since, even though he left office in 1992, and we have had two democratic governors since then.

But I could echo pretty much what both Larry and Bruce have said about their situations, and it is very similar in North Carolina. There is no upside to a governor supporting oil and gas activities off of our coast, and there is a lot of detriment for supporting it.

There is a huge tourism industry. There is a huge recreational industry in our state, a very vital, and viable fishery industry. And all three of those industries will tell you that their perception is oil and gas activities are not good for their business. And that is what the governor hears whenever there are sounds of leasing or exploring or drilling or trying to find oil or gas, even though it seems the evidence points to, if there is anything off of our coast, it would be gas also.

I guess our current position is that, unless there are some kind of drastic energy changes from the current world situation and the current war efforts, I don't believe our position is going to be changing any time soon.

Our current governor has stated that he doesn't really believe oil and gas activity can occur in a safe and sound manner for our environment and for our recreation and tourism and fishery industries. An he's going to have to see very strong proof that it can occur before he's going to change his position.

So we are, as I said, under moratoria until 2012. And I don't see our governor's position changing on that unless the world situation changes.

So with that, you have heard the perspective of four states on the moratoria. And we'll now open it up for questions, Mr. Chairman.

MR. OLTZ: Thank you, Donna. Are there questions and comments? George.

MR. BANINO: George Banino, Marine Mining. In the discussion about Oregon and Washington, in particular, the statement was basically made that it was a feeling there was insufficient data or not a feeling but a decision that there was insufficient data in order to evaluate whether or not you would consider oil and gas development. I wonder what those states might think about initiating some studies to see if such a decision could be made.

MS. EVANS: I think both states would be supportive of studies being initiated, but let's define what those studies are. They are not exploratory drilling studies. They are the sort of the suite of oceanographic studies specific to that area.

Now, I would also say that the studies that were defined in 1990, one probably needs to take another look at that risk and re-evaluate that again, because certainly there has been oceanographic work off our coast. Whether any of the gaps that were present in 1990 have been filled as a result of that, that is something we have not looked at because there has not been an interest in going down that particular path.

And I sort of want to reiterate, that particular path has a very high price tag on it. And if you compare the price of those studies with the likelihood of -- well, I guess make it more direct -- the price of the oil that it might produce, oil or gas produced on the other end, it doesn't pencil out.

I also want to just sort of reiterate what the colleagues from the East Coast said from the political aspect. There are no votes for this, for oil and gas development in the political setting. However, I think both states would be supportive if there were money to do the kind of settings that we think are necessary.

MR. OLTZ: Sir.

MR. GUTTING: Dick Gutting, Fisheries Industry. Try to stir things up a little bit here. I thought the presentations were outstanding from all of you. I was struck in particular at the contrast on the West Coast between how the oil and gas controversies played out versus the cabling necessary for some of the modern communications.

We have had a situation in fisheries on the West Coast, Oregon, California, Washington, and even Alaska where high tech companies want to lay down cables, fiber optics. It's beyond me. I don't quite understand it. But, in order to do that, they had to get through a permitting process at the federal and state level and were encouraged particularly by the states to work out differences with the fishing industry, which had concerns about preemption of the grounds.

And what transpired through the encouragement of an industry-to-industry dialogue, if you will, was an arrangement, series of arrangements, in fact, where a win-win proposition was developed. And I think that changed the politics. Certainly changed the politics within my industry.

And I'm wondering whether there might be some lessons learned there that might be a part of a political change. And I'm just wondering whether any of the state officials are familiar with what I'm talking about or whether a similar approach has been tried or even discussed.

MR. SCHMIDT: Larry Schmidt from New Jersey. A quick response would be that some of the other activities that are currently going on in the ocean, including submarine cables and creation of artificial reefs and sand mining don't appear to be as threatening as offshore oil and gas. People conjure up the image of birds being oiled and white sandy beaches turning black and ruined and a destruction of an economy, and that is a tough one to get around.

We in New Jersey and on the East Coast states are facing the same issues, trying to reconcile the placement of communication cables and accommodating the fishing industry, and we have done it in a couple ways. One, almost through alternative dispute resolution, bringing in the parties and finding out what their interests are, what their concerns are, and then finding a middle ground to accommodate both the fishing and the cable industry.

We are taking it a step further now by proposing state regulation on our rules on coastal zone management to spell out the guidelines so the communication has a clear idea on what they can and can't do in the future.

Again, to answer your question, it is very, very threatening in terms of the perception of an oiled bird on the beach. It's just not something people want to sit down and talk about at this point in time.

MR. OLTZ: Anybody else?

MR. VILD: Bruce Vild, Rhode Island. Again, I go back to the thing that was appearing in the popular press in the New England area about fish versus oil. It was like it was a choice and it was an irrevocable choice. It was a choice that you either had to have one or the other. You couldn't have both.

Larry is right when he says that offshore drilling is seen as something infinitely more threatening and more permanent, really, than just the laying of submarine cable and so on. It seems people are willing to make tradeoffs with regard to that but not with regard to offshore oil and gas.

MS. EVANS: I guess I also want to sort of jump in. Evans from Oregon. I think there is something to be learned from the offshore cable experience. In Oregon, we feel that we have had a fairly successful experience there, and what I think is to be learned from that experience is it is possible in some situations that originally looked to be someone will win and someone will lose, it can be possible to find a sort of a win-win solution; but in order to do that, you have to enfranchise the least powerful party.

In the case of Oregon, the way of doing that with the cable question was essentially the state taking a position that said we won't approve the permits until the fishing industry is happy.

Dick, is that a fair statement of that?

And that gave a little more balance to the conversation, and it gave a lot of incentive to solve it, and a solution was put together. I think it is a good solution. It involves the fishermen in the process, and it continues to involve the fisheries in the process of, you know, cabling and monitoring of how that goes on so that you can have both fishing -- primarily, the big issues were bottom fishing -- and cabling.

It is a different question than oil, but I think there is a principle there that can be useful. That is one of enfranchising the people who are affected.

MR. GUTTING: Mr. Chairman.

MR. OLTZ: Sir.

MR. GUTTING: Just to respond to that, you are totally completely correct. Without the support of the state agencies, this would not have worked. And I can't tell you how grateful and how much goodwill was generated from that fundamental position that the state agencies took, and we certainly hope to see that same kind of approach on the East Coast.

Just again, speaking from a fisheries perspective, and from my very brief tenure here on the committee, while I don't profess to be an expert, I think there is a profound difference between gas and oil. I'm not sure that difference is fully appreciated by my community. And I certainly do think oil is a scary proposition.

There is no question about that. But I do believe that gas potentially could be a different story. If it could be managed and positioned with my community, I think you would find an open mind. That has not yet occurred. And I really suggest that you take a close look at cabling as a possible entry point for a dialogue within the states on gas.

MR. OLTZ: Tom Kitsos.

MR. KITSOS: Kitsos with MMS. To show you how old I'm getting, you have reminded me, particularly the East Coast speakers reminded me that, shortly after the OPEC oil embargo in the mid '70s, all of your states did support offshore oil and gas development under certain circumstances.

And the position of your states led to Congress writing the 1978 amendments, which was an attempt to bring the states into the decision-making process much more than the original '53 law did.

And I guess my question to you is: What happened? What changed from the mid '70s to the late '70s when the law changed to the early '80s? The answer that we at MMS tend to come up with is Secretary James Watt. But I wondered if you could expand. If that's the answer, then that's the answer.

Is there something more? Has the world changed so much for you that all three you, actually, all four of you, but all three of you from the East Coast have basically said, right now, there is just no way that politically any of our elected officials could support this? Is there more of an explanation?

MR. SCHMIDT: Tom, my only response would be that I think the states have a perception that we as a society have gone from driving Pintos to driving huge SUVs. We have become energy pigs.

And part of the equation is there is a need to get back to energy efficiency and an attempt to wisely use the resources that we have. I think that was the message that Mr. Florio as the governor of New Jersey tried to convey. It wasn't offshore oil and gas impacts as much as it was his resentment for the lack of a national energy policy at that time that had as its hallmark energy conservation and wise utilization.

MR. OLTZ: Bruce.

MR. VILD: Bruce Vild, Rhode Island. I think the difference is that the Congress people seem to be making the decisions now more so than the governors are. And, you know, it gets back to the point I was making about the moratorium kind of substituting for, you know, a governor or an attorney general getting a case together in court to stop a lease sale. If the moratorium is in place, and as long as the moratorium is in place, we don't have to do that, inertia.

MR. OLTZ: Pat.

MR. GALVIN: Pat Galvin, Alaska. I'm thinking back to six months to a year ago when talking to the folks from the Northeast, they were dealing with personal heating bills, energy bills that were double, triple what they were used to.

And I'm wondering, in that context, was there any softening among the general population about the concept of needing more supply or was it still along the lines of what Larry described as,
Oh, this is our own fault for using too much?

MR. SCHMIDT: Larry Schmidt, New Jersey. My own personal observation is that, having gone through the energy embargo of 1973 and unfortunately having purchased my first new automobile with a V8 engine as opposed to a six cylinder or a four cylinder, I graduated up from a Volkswagen bug, that caught us in a very difficult economic situation. At that time, a larger percentage of our disposable income had to go to energy purchases, whether they were gasoline or home heating or what have you.

What I'm seeing recently is that, even though gasoline shot up from $1.25 to $2.00 a gallon, in terms of the percentage of the disposable income, it was just a minor glitch, more of an annoyance than anything else.

And then people really don't understand what the gentleman this morning was saying. And, I mean, if I went back to New Jersey today, I would get gasoline at $1.20 a gallon or less, and I was paying $1.60, $1.70 three, four months ago. So people just don't understand the fluctuation in energy costs. So that message has not hit home with us.

MS. KALLAUR: May I ask a question. Carolita Kallaur. I really appreciate your candor. Having lived through all that, I agree with everything you said. I'm wondering, I think it's hard for the intelligent American public to really understand the energy situation. And I really wonder if people recognize how much oil we are importing from Iraq right now.

I think they understand we may bomb Iraq tomorrow, but do they understand that we are also depending on Iraq for oil and just how the whole Mid East situation is so volatile and whether or not there would be any value in even the administration taking out an initiative to try to reach out to the Governors' Association just in a factual way just discussing what the situation is right now and talking about strong conservation initiatives, which I think the American public really supports, but at the same time saying we can't work our way out of this problem through conservation, and just try to present facts and try to develop some sort of consensus about how we as Americans are going to deal with I think a greater vulnerability we have today than we had, you know, prior to the attacks of the 11th of September, because there is some way you have to have sort of an intelligent discussion about our energy situation in a nonthreatening environment.

I realize that no governor is going to stand up and say I'm willing to reconsider the moratoria issue. When I think back to the spring, we couldn't even do a literature survey to gather environmental information. People made it as though it was some sort of subversive plot by MMS to lease in the Atlantic. Somehow, we have to get over that type of reaction and have a more intelligent discussion, because we could have a situation two or three years from now where Congress dictates us to go out and have the private sector develop these resources, and we won't have the information base that is necessary to make really good decisions.

MR. SCHMIDT: Carolita, you are absolutely correct. I go back to 1973. I remember gasoline stations with red flags. That means don't even bother driving in. There is no gasoline. I remember having even-numbered license plates. That means that, on even-numbered days, I could purchase a limited amo unt of gasoline. I think maybe that's what it is unfortunately going to take to get the attention of the majority of the people.

MS. MOFFITT: I would say, too, Carolita, it is not going to hurt to do some kind of an educational effort starting with the National Governors' Association. I don't know how much it will help. I think the message has to be broader than just looking at how much we have to import.

There has got to be some clear commitment to a very strong conservation effort. There has got to be a clear commitment for the states to have a real say in leasing, and then, you know, the aftermath of that, where it is going to occur and how it is going to be done and when, that sort of thing.

And, somehow, we have got to get away from a feeling that the oil and gas industry is manipulating prices so that, in the good times, you know, they are high, and in the bad times, they go down low maybe, but that we are always at the mercy of what the oil and gas wants to put a price on energy products.

So from my perspective, if we can get a rounded educational perspective out to the governors, it is going to take all of that.

MR. OLTZ: Bruce, I don't want to cut you off. We are running on a time thing here. There are two more people that would like to ask questions. I would like to get to them first.

MR. McLEMORE: I'm Bill McLemore from Georgia. We are in a moratoria area. One day we woke up and found we were in one. We didn't ask to be put in one. I don't think we have ever made a disparaging comment about offshore oil and gas leasing or oil and gas production offshore.

I do know they drilled an oil test well off Georgia in '79. I understand from MMS there was an environmental impact, that you could get a chicken fried steak in Brunswick, Georgia, and that was the sole environmental impact.

The others have made several comments, which are appropriate. We didn't ask to be put in a moratoria area, but there is certainly no political advantage in asking to be withdrawn. The entire issue of moratoria is truly a national issue and involves both coastal and non-coastal states because you are talking about a national energy supply and should be the focus of a significant nationwide debate.

The other states that are non-coastal states do have an interest in what happens in the coastal areas because they drive to our states to use our beaches and our harbors, and lots of products move through them. This is an issue that truly is nationwide.

And those states that currently produce from the coastal region should not bear all the, you know, negative impacts. So I think that we certainly would encourage the current administration to develop a national dialogue on this issue and maybe just bring the issue to the front. I don't think we would be objectionable to cancellation of the moratoria. And certainly, Carolita, you can come do studies in Georgia. We'll help you.

MR. OLTZ: Linda, go ahead.

MS. SHEAD: Not so much a question either, but I just wanted to reiterate some of the things I have heard. One of them is there isn't going to be a single bullet kind of an approach to this and that it is going to require people believing that there is an effort in every direction.

The issue of conservation, we see it in water quality issues around Galveston Bay. It happens nationwide. Individuals and their non-point source pollution, what people do in their yards and with their cars is the biggest source of pollution in Galveston Bay now, not industry, and yet you can't get people to pay attention to what they do unless they know that industry has done its share.

That has to be part of the national discussion, that it cannot just be the burden is going to be all on the coastal states to let oil and gas development be offshore.

People are going to have to feel like what the folks over there were saying, that there is a commitment to having serious, meaningful conservation.

I want to reiterate the importance of starting the dialogue. I have heard people say, well, there is no political advantage to having the dialogue, and the Congress people are the ones that are driving. Yet Congress people listen to their constituents. If through the administration through a governors association through the states the dialogue can begin to develop, then I think that the congressional people will listen.

You have to have the dialogue. That is the first step. And the dialogue has to include all the different interested parties. That is the other thing that has been said, the collaborative nature Nan referred to. Donna is talking about the states having a say. Without that, you can't get anywhere. And part of that enfranchisement may mean some amount of relinquishment of decision-making power on the part of the Federal Government.

An example of a success of that, again, in the Galveston Bay area was for our deepening and widening project for the Houston ship channel. They had to go back and redo studies, and the Corps of Engineers could have insisted on doing it the same old way, which is: We get to decide.

We're the Corps. Instead, they put together a team with all the agencies, and they relinquished the decision-making power to the group. They said the inner-agency coordination team is going to decide what studies are done and how they are done before we do the deepening and widening.

That was a pretty radical thing for the Corps to do, but it worked. It got everybody onboard on deciding what needed to be done and got support for the eventual project. It may take a pretty radical move on the part of the Federal Government to relinquish some of the power to the states in this decision-making.

MR. OLTZ: I'm being pushed here. We have got one more panel to go. If you can make it short.

MR. KELLY: Thanks, Mr. Chairman. Paul Kelly, Offshore Support Industry and Committed SUV Pig. I appreciated your being generous in letting this discussion go on. It relates to one of the points I was going to make. Your agenda planning committee has now twice put items on the agenda where we had an opportunity to have feedback from the states. I think the one we had in May where several of the states reported on additions to electricity generating capability was a very good one. This one was very good.

I wanted to join Dick Gutting in his comments. We really appreciate the homework that has obviously been done by all four of you in making these presentations. We really appreciate your excessive realism.

Just a couple of observations: Number one, I can't help but observe the paradox between this presentation from the states and the one we had in May where basically we are hearing that there is not a very bright political future for the OCS program as far as your states are concerned. And, yet, last May, I think that what we heard in terms of additional generating capacity developing in all the states shocked even some of presenters, who until they prepared for their presentations were not fully aware of all the activity going on in their own states.

The other thing I wanted to observe is that I think that the nature of the moratoria has changed. When President Bush, the elder, imposed the 10 ten-year moratorium in 1989, it was done on the premise that we didn't have enough research and studies done for the program to advance, and we needed more time. MMS needed to implement recommendations of the National Academy of Sciences with respect to studies done under the program.

So following the moratoria, we went to work and I think addressed a lot of those concerns that led to the first Bush moratoria. And, indeed, our committee went ahead and did our study, moving beyond conflict to consensus, and we recommended ways in which MMS could deal with the states and more fully involve them in the process.

I think MMS has been very successful in this respect. Yet, I think what has happened now is that I think that all that work is sort of being passed over by political forces and that when President Clinton imposed the extension of the moratoria at the National Oceans Conference in Monterey in 1998, it wasn't done under the premise not enough work has been done by MMS. It was just done on the premise we are going to stop this activity. I think this where is we stand today.

I think, as you pointed out, Bruce, the presence of the moratoria, instead of being a time in which we make change and look forward to a time when we actually might do something, instead has created a kind of inertia on the part of a lot of states to do nothing.

The last thing I wanted to say, again, trying not to take too much time, but perhaps we can continue this dialogue tomorrow in the round table discussion because I think all this has a great bearing on the future of this committee. If this is the reality, what should we do with the OCS Policy Committee in participation. I think we could carry the discussion on further at that time.

MR. CARLTON: Jim Carlton, Major Oil. With that said, if we could have some agreement to carry on the conversation at the round table tomorrow, I'm happy to defer until that point in time.

MR. OLTZ: I was going to suggest a more non-threatening atmosphere might be at a reception also. Is there anyone on the panel who wants to make one final statement here?

MS. EVANS: If I can, I'm willing to respond to Carolita's question. I think there is a big difference, and the public knows it, between public education, outreach and marketing. And I think it's important that, first of all, we have a more educated conversation. I think, for myself, I found the conversation this morning or the presentation this morning by Mr. Groppe fascinating, because it was linking a lot of the energy issues within the larger political arena. That is hopefully a place that more citizens and elected officials can get to us to see that. But to have that kind of conversation and to have the information come to the conversation from trusted sources in a way that is information, not marketing, it's a very difficult balance.

And, you know, whether or not Secretary Watt sort of poisoned the well, there is a trust issue between the Federal Government in many of its arms, not just MMS, and the states and the public. I'm sorry, in the sense of trying to be candid, I really wanted to answer that question. I hope my candidness was not offensive. It was certainly not meant to be. I have been both a state and federal employee.

MR. OLTZ: Thank you, Donna. I appreciate your putting this together. As Paul said, I think what we did last time and what we are doing this time are very neat kinds of discussions.

I look forward to the opportunity sometime where we can get really down and do these things again. This is important conversation. Appreciate your effort. Thank you.

We have another panel that is about to descend on the panel sitting area there. We have Keith Couvillion and Chris Oynes, who are going to talk about energy-related uses of the OCS. Keith, it looks like you are up first.

ENERGY RELATED USES OF THE OCS PANEL

OFFSHORE LNG FACILITIES - J. KEITH COUVILLION

MR. COUVILLION: This is going to be a continuation of a common theme we have had today, natural gas, specifically LNG. What we are going to take a look at is a project that Texaco has been working on for about 18 months. It is actually an LNG regassification terminal that is located offshore, not onshore, not in an existing port, any existing waterway. It is actually 40 miles off the coast.

So what we are going to talk about is what we are doing, why we are doing it, looking at the concept, how we are going to go about doing it, when do we anticipate we are going to do this if we do it at all, and what are the major issues associated with this particular project. It is kind of an alternative look at getting gas into the United States, different from the existing methods that we have right now.

Okay. Quick look at what are we doing and why. Texaco like a lot of the other major companies in the United States, they have large discoveries around the world of gas and oil. A lot of oil, for instance, with Texaco, we have in West Africa, a lot of new discoveries, one that is so called a billion barrels with a lot of associated gas. We have discoveries in Brazil. We have discoveries in Australia where we have discovered trillions of cubic feet of gas but very little markets. In some cases, there are no markets for the gas.

In the United States, you have seen the statistics over and over again where for right now we have current demand, and then we have increases in demand over the next 15 years. And we really have a problem in trying to identify where that supply is going to come from. You saw the information this morning about what the decline curves look like in the United States. Those are real. We encounter that all the time. A lot of the investments that we make in the United States in the oil and gas business is just trying to stop the decline if we can. But we have very prolific areas, the Gulf of Mexico being one, and the mid continent area, also, where we produce a lot of natural gas and oil quickly. So that is why those decline curves are so great. Trying to inhibit those decline curves is sometimes very hard.

What are we talking about doing? Right now in the United States, this is a picture of the four existing LNG terminals we talked about this morning, Everett terminal, Cove Point, Elba Island, and the Lake Charles facility. We also were talking about some of the other facilities that are being contemplated out here. These are the four that currently exist.

All this red stuff that is up here, those are kind of a review of the pipeline systems that exist right now in the United States. And you can see there is a high concentration of pipelines along the Gulf coast, especially in Texas, Louisiana, Mississippi, and Alabama. Then you get up into Oklahoma, and you see where these lines feed all over the United States.

What your concept is, we have a great supply of natural gas in different parts of the world, but we don't have a market. In the United States, we have a tremendous market, and it appears that it is expanding, and we have an infrastructure already in place if we can get that gas stranded in different locations around the world into the U.S. market.

That is what we were looking at. How do we get that stranded gas to the U.S. market? You can't lay a pipeline from Australia to the United States. You just can't do it. But if you can convert that natural gas to a form that you can transport it and then regassify it, then now you have a market.

What we looked at when we started this process was, okay, what are the capacities right now at the existing plants, and what are the expansion capacities of those existing plants. You heard after lunch that some of these are expanding, have the capability of expanding, but the bottom line is: Even with the expansions and some guesses on expansions that you are only talking about 1.4, 1.5 billion cubic feet a day of capacity. That's a drop in the bucket to the daily and annual consumption of this country. So those are the four that exist right now in the LNG capacity.

Now, what have we been looking for? We have been looking at how do we tap into this existing infrastructure that is already there. The Gulf of Mexico has been developing the shelf infrastructure for over 40 years. There are pipelines everywhere. And then you saw the map a while ago that showed all the interstate and intrastate pipelines that exist.

This is the coast of Louisiana, to give you an idea. New Orleans is over here. We have been looking at an area right here. And there is a reason, I'm going to show you in a second.

This is about 40 miles from shore in about 60 feet of water.

Now, our concept basically is to build a structure offshore where tankers can come up to the structure, offload the LNG, and then we pipe it to the beginning of our existing infrastructure that is located in that part of the Gulf of Mexico. This is Marsh Island. Morgan City is up here. We have a field that we call Tiger Shoal. There is another field we call Lighthouse Point. There is another field we call Mound Point. These fields have been in existence for over 30 years.

At their peak, we were producing a billion cubic feet of gas a day from these fields onshore. The pipeline system is still in existence that we used back then. 1972 I think was our peak production, when we were producing actually a billion cubic feet a day out of these systems.

What we want to do is have a facility out here that we can tie back into that existing infrastructure. This infrastructure ties into the Henry Hub. We have talked about that before. At the Henry Hub, you have 10 major pipeline systems that come into the Hub that then feed the rest of the United States.

We also have another route that we can go in this direction to a floodway plant, another gas processing plant that is tied into some of the same pipeline systems, intrastate, interstate, but also in different ones.

So our concept is put something offshore in, in this case, 40 miles offshore. You can't see it. You don't even know it is there. It's in 60 feet of water because the ships that we are looking at partitionally constructing draft 38 feet. So, for safety reasons, we need to be pretty deep.

Now, we looked at two different designs of facilities. We looked at a floating facility where you actually can put all this regassification equipment on the facility itself. It floats. It could be a barge or a ship shape.

You tether it to the sea floor, and you build the pipelines. And just like we talked about here, from here to shore.

Then we looked at what we called the gravity-based structure, this thing right here. It is actually a platform, sits on the sea floor, sticks out of the water, gravity based. That's all it is.

In this case, what we have been looking at is a facility that is over 1,000 feet long and 300 feet wide. The internal portion of it is the storage for the LNG. You come with the tanker, pull up, offload into the LNG regassification terminal. You regassify it, put it onshore. This terminal could hold between three to 5 Bcf, billion cubic feet of gas; but we planned to be able to produce at least a Bcf a day potentially.

Now, we looked at this a little while ago. You saw it on some of the other slides, a typical domed LNG tanker. The tankers we have been looking at range in price from about 165 million to 175 million up to, there is actually one case, they are 195 million a piece. Now, they can hold, the bigger ones, between 135,000 to 145,000 cubic meters of LNG. That is equivalent to about 3 Bcf, more or less.

In our particular concept that we are looking at, we would have to build from 8 to 12 of these tankers that we would primarily use in a chain that I will show you how it works in a few minutes, in this case, from West Africa, that we would liquefy the gas in West Africa, bring it to the United States market, offload it in the United States market, and then put it into that infrastructure we talked about a minute ago.

This is kind of a cartoon of that gravity-based structure where we have a cut-out of the water, shows it just sits on the sea floor. We can moor on either side of the structure. Ships can come up. This is one of those five-domed ships we talked about earlier. This is just a different type of LNG tanker that can pull up also on that side. And they offload, move off, and another one comes.

What we are looking at also is putting this thing in early. When I say early, the timeline right now is about mid 2005 because it just doesn't have to take Texaco slash, my new company Chevron/Texaco Production. It can also take production from other parts of the world that other people own.

Now, the site selection, part of our rationale for it is, it is off the coast of Louisiana, a state that is favorable for oil and gas development. We have access to world class infrastructure. Like I said before, the pipelines are there. The infrastructure is there. We know how to operate in this environment.

With the ships, we can go in and out. We are working with the Coast Guard to determine whether or not we actually need to establish new shipping fairways and safety zones around a facility of this sort, a gravity-based structure. They have been very, very receptive to this concept.

One thing they are very touchy about is those LNG tankers going into the ports, Boston, or going into Lake Charles because of the perception that they are dangerous. And the Coast Guard really likes the idea 40 miles offshore, open water, coming up to this facility.

Also, when you are in an offshore environment like we are, what we are talking about, you can easily expand that facility. We are right now looking at a one Bcf facility. We can easily expand to 2 Bcf if we have the product to put in it.

And the last one is reduced NIMBY factor. In case you don't know what that means, that is "not in my back yard," which is very common for LNG. People do not want those facilities close to populated areas. We have heard a little bit about that earlier after lunch.

The supply impact, just briefly, one Bcf can provide energy for three million homes, positive regional economic benefit. A terminal like this would have supply boats. You would have people working there, so you would have jobs, additional taxes, supports, energy policy and, again, infrastructure development, diversification of energy supply, and national security, some of the things we have already talked about today.

Here is the classic LNG value chain. It starts off, when you look at the entire chain, in our case, I will just use the example of in West Africa off of Nigeria where we have a couple new discoveries. We have lots of oil. It is offshore discoveries. And we have all this gas we need to do something with.

So we have the development here of producing the product to the surface. Once we get that product, we can take the oil, separate it from the gas. Then we take the gas, liquefy it, store it, and then load it onto a ship, and send the ship wherever we can to whatever market. In this case, what we are looking at is taking it to this gravity based structure that is located 40 miles off the coast of the Gulf of Mexico, in the Gulf of Mexico, off the coast of Louisiana.

Once it gets there, it offloads, regassify it, and normally what you would do is you would have a long-term contract with end users if you could get those for that supply. That is your traditional chain.

What we have done here is we put another factor here. Instead of having tied into one or two long-term contracts, if we can get into the infrastructure, now we let the marketing people earn their keep and be able to market that gas wherever the need is.

So if we bring in a Bcf a day of production, that's the game plan, then what we can do is get into that intrastate and interstate market and send the gas wherever the gas needs to go.

Now, when we talked about earlier today the decline in natural gas, you have to realize that infrastructure that was on that map a few minutes ago, a lot of those pipelines are not at capacity any longer. They were built to handle billions of cubic feet of gas a day. They are not at capacity anymore. There is excess capacity throughout the United States. Adding just a Bcf a day won't do hardly anything to fill that up, but it can't hurt.

As we get other LNG projects around the United States built, it will help try to meet that gap that has existed at least in the predictions that we are going to need 30 Tcf by 2015.

So the benefits of the strategy overall. LNG, you heard about it. It is clean, basically, low environmental impact. If there is an incident offshore, first of all, you can't see it.

You don't know it is there. And because you are at negative 260 degrees Fahrenheit, the atmosphere plus the warm water is going to have an effect on what happens to the LNG ultimately. Again, jobs, tax base, reduces greenhouse gasses. It is able to give us the opportunity to take some of that stranded gas we have in different locations around the world and bring it to a market where we can actually do something with it.

The markets that really use LNG, Japan, Indonesia to a lesser extent, Europe and the United States, the price has to get to a certain point where it makes economic sense.

The last thing is it enhances the North American gas market. But we are just looking at this particular project right now in concept. To do this is very expensive. What I told you about the tankers, 165, 195 million a piece, and we want to build from 8 to 12 of them. The regas facility right now, we are looking at possibly a $600 million facility with the pipeline that goes in, ties into the infrastructure, and then refurbishing that infrastructure to the Henry Hub. The gas-to-liquid facility in Africa, that is running about a billion dollars, too.

So you are looking at a $3 to $4 billion project. And your economics tell you that you have to have a gas price that's fairly consistent to make this thing viable. Carolita, you had asked earlier about the price. We are looking at from 2 to $3.00, preferably in the 2.25 to 2.50 range as making it economic.

Now, I said earlier, the regas component of this, we are predicting right now, if we get approval from corporate management to go forward with the project, then what we will do is build a regas component first. The gas-to-liquids piece in Africa, it has to tie to basically the drilling and developing of the fields that we have discovered. So it may be 2006, 2008, actually, before that component is built.

But because there are other companies around the world that have gas just like us and have no market, if we build an offshore, it would be treated something like LOOP in some cases, Louisiana Offshore Oil Port, that takes production or takes shiploads of oil from all over the world and offloads them and puts them into the oil system in Louisiana. That is kind of it on the numbers part.

Now, where are we and what are our challenges? Besides getting management to approve spending that type of capital on one project that could be beneficial for a long time, the second thing is, this is no man's land. We talked earlier today with one of our previous presentations that the Federal Energy Regulatory Commission has a responsibility of those onshore facilities, but this is not onshore. This is offshore, and FERC does not build platforms. This is a hybrid concrete platform.

So in the MMS and Texaco, we have been talking about jurisdiction, who has the authority. We have talked to FERC. We have talked to Coast Guard. We have talked to DOT. We have met with all these people. And there are some regulatory and permitting issues that have to be addressed, but not anything we don't think we can address. We want to do this right. We want to do it the best way and make everybody happy.

We have started now going through that permitting process, at least in concept. Once we pull the trigger, with know we are going to have to have an Environmental Impact Statement to look at on the viability of doing this project, because it is unique. It has never been done before. It doesn't mean somebody else won't do it also.

For right now, it makes economic sense for us because we have the existing infrastructure here in the U.S. and we can easily build a structure like this and put it offshore and send the gas onshore. That is it for right now.

OTHER TYPES OF PROPOSALS – CHRIS C. OYNES

MR. OYNES: Chris Oynes again from the Gulf of Mexico's office of MMS. One of the points that Keith talked about was the regulatory jurisdiction, and you maybe have a question in your minds of why did we have another LNG presentation in a separate panel.

The point was to talk a little bit harder about these regulatory jurisdiction questions because one of the things that are starting to appear is that there are more and more energy-related uses of the OCS being proposed as opposed to energy production from the OCS.

As I was talking earlier with Jack Caldwell, we are having more and more projects that in effect have energy moving through the OCS. These are raising different legislative and jurisdictional questions as to how in the world these will be regulated, whether there are adequate regulatory authorities in existence.

So what I would like to do is talk a little bit about some of the other kinds of projects that are not LNG, but again work on this concept about energy through the OCS or are energy-related but not necessarily energy production itself. I realize the hour is late, so I'm going to rush through this.

There are four things I wanted to talk about. One was McMoRan, Freeport-McMoRan's waste injection project; a bulk offshore oil transfer system or another fancy name for a deep offshore oil port similar to LOOP, this one off Texas; a compressed gas proposal that we recently had a briefing by a company on, very serious about pursuing; and also offshore supply bases.

First of all, Freeport-McMoRan has filed with MMS, and we have an environmental assessment underway at this point dealing with a waste injection facility, which would be at Main Pass Block 299. I believe it is 30 or 40 miles off the coast of Louisiana.

In brief, what this does is they would file for a right of use and easement as opposed to a lease, a right of use and easement with Bcf to inject into an existing sulfur production facility and actually an oil and gas facility, as well, but the sulfur production is the critical part. They would inject these wastes, which are normal wastes from exploration and production -- they are not radioactive or high wastes in any way, And actually there is my slide; it says about 14 miles off the shore -- into these cap rock formations.

So it is basically, the way they have produced the sulfur. Sulfur formation has carved out a cavern, if you will, underground. And this is where the waste would be injected. These are normal wastes, as I mentioned. They are exempt from the RCRA Act.

Basically, the proposal by Freeport is to deal with supply vessels and barges with loads up to 25,000 barrels. We are doing an environmental assessment, which will be completed early in the first half of this next year.

Another proposal is BOOTS, Bulk Offshore Oil Transfer System. It is proposed in the Galveston area, between Galveston and Port Arthur. What this does, it is a proposal by a group formed out of Unocal, Union Oil Company of California, will be about 70 miles offshore. It will take oil from tankers. Basically, it is another kind of Louisiana offshore oil port, in this case, off Texas. I will get to some other points about that in a minute.

And it would be basically licensed similarly by DOT under the Deep Water Ports act. So this one doesn't present quite as much of a different kind of problem. Environmental review work will have to begin before the actual filing of the license application. That's the stage we are in now. The license application involves being it envisioned to be filed early in 2002. Seems like everything is coming in 2002. Some environmental work will have to be done. Then an EIS will have to be done. You can see the rest of the time line there.

MMS would hopefully be involved in the EIS in providing some technical assistance on this matter. I will get back to MMS'S role in this a little bit later.

Another item, a third item I want to talk about is the one we just got a briefing on by a company here in the last month dealing with compressed gas. As you can see the pipes inside here, this is how this would be carried. This is a cut away viewpoint. This technology was developed a number years ago. If you will, this is proven technology, but has not been commercially applied for many, many years. So they are resurrecting this. The kind of thrust that they are talking about is that they would use this as a way to either bring compressed gas from overseas, West Africa or something like that, but also very, very interesting, this is another way to solve the gas, what-do-you-do-with-the-gas-kind-of-question for deep water oil and gas developments in the Gulf of Mexico.

One of our problems at this point is what to do with the gas. If you can't build the natural gas line and MMS won't allow you to flare the gas, obviously, from a deep water project that is many, many, many, 50, 100, 200 miles offshore, the question is: Well, what are you going to do with the gas? If you compress it, this would be an alternative way of bringing that gas to market, which would then fit in with the use of FPSO, floating production, storage and offloading kind of system. This would take care of the gas portion of that offshore development out in ultra deep water.

It would also bypass these kinds of problems in pipelines that you have when you go out a long way and you have a great amount of terrain and very almost canyon-like terrain out in the Gulf of Mexico. So there are various reasons why this would be wanting to be considered.

One of the other interesting things I saw with this was that, right now, there is gas loss due to various processes of transport. You can see the amount is less than 10 percent for pipelines.

This compressed gas may be at the 10 percent mark, where you have the shrinkage that is lost from LNG and GTL, gas-to-liquids technology, are in a much higher range. These are the kinds of economics that are driving why you would even consider something like this over and above the terrain problems and other things you would run into, say, in the deep water Gulf of Mexico development.

The fourth and last area I wanted to bring to your attention is there is increasingly talk, especially as industry moves farther and farther offshore, that it is just not good economic sense to keep supplying everything or a lot of things from the shore base going all the way back to Lake Charles, to Galveston, to wherever. So there is increasingly proposals to move a helipad facility, if you will, as an offshore support base; medical facilities, maybe even a small hospital; drilling mud supplies, if you will, in almost like an offshore port; and the same thing with pipe, move those offshore and have routes/connections that would bring by barge or otherwise to that facility.

Then you would distribute to the facilities, the actual offshore projects from this centralized facility out in at least semi-deep water.

The questions that all this raises is that there are several questions of there seem to be gaps as to no one seems to have complete jurisdiction or very strong jurisdiction to deal with all the kinds of questions we as the public would want to see addressed in these kinds of facilities.

As an example, the Deep Water Ports Act, which we mentioned for the BOOTS offshore oil port, MMS should have a role in this presumably. Yet at the same time, MMS wasn't even formed when the Deep Water Port Act was passed. Whether that is really a problem or not I would defer to others. As an observation, it is a point of how everything evolved. MMS came after the Port Act was passed.

MMS legislative, regulatory coverage of these areas seems to be weak. We are limited to rights of way; rights of use and easement, which are usually viewed as tangential to an operation; they are a pipeline for an oil and gas facility. In this case, the right of use and easement may be for the entire facility. Freeport waste injection facility is a good example.

MMS's legislative jurisdiction doesn't quite fit with this. Our legislative jurisdiction is focused harder on oil and gas production as opposed to oil and gas energy-related facilities where it is passing through the OCS or brought into the OCS, no clear one-stop shopping, because, as an example, that third bullet, other agency's jurisdiction is also similarly limited or site specific, topic specific. So there are various gaps. I didn't go into any great length of specifically diagnosing this.

This is my last slide. The bottom line is that probably in several of these areas, these environmental, the technical reviews, the inspection authority that one would expect and justifiably expect for these kinds of facilities are not as clearly apparent in the legislative jurisdiction that is out there and probably needs some kind of addressing.

Now, how it would be addressed is up for probably several different types of ways of discussion. Obviously, you could fix the legislation itself. Another possibility would be maybe some kind of memorandum of understanding between agencies to work a comprehensive framework to deal with these kinds of projects. All of these kinds of projects are hitting or are likely to be hitting us soon in terms of demands on how energy and energy-related facilities in the OCS ought to be considered. Thank you. We'll take any questions.

MR. OLTZ: Quick comments or questions here? Mr. Kelly.

MR. KELLY: Paul Kelly, Offshore Support Industry. Chris, when the industry and several government agencies met with the Coast Guard two weeks ago to discuss security issues in the Gulf of Mexico, in describing the physical

challenge that the Coast Guard has in covering this area, they said that the Gulf of Mexico has effectively for them become one large port. And I think your presentation explains why they think that. It was very interesting. Thank you.

MR. OLTZ: Any other comments? Thank you, Chris and Keith. Do we have any public comments? Is there anybody signed up? No. We are going to pass out a proposed resolution that we will take up tomorrow afternoon at the round table. Mayor Ahmaogak from the North Slope Borough has a resolution he would like us to consider. I'm going to give him five minutes, say -- George, is that adequate -- to make a slight introduction today and let you read this thing over night, and we'll take it up tomorrow.

RESOLUTION FOR CONSIDERATION - MAYOR GEORGE AHMAOGAK

MAYOR AHMAOGAK: Thank you, Mr. Chairman. The resolution is drafted by me. It is a very deep concern about the OCS activities that are taking place in northern Alaska. The resolution has two purposes.

The first purpose is to clarify that certain of the recommendations from the Natural Gas Subcommittee, which were adopted by resolution of the OCS Policy Committee on May 24th, 2001, are applicable to OCS oil issues, as well as OCS natural gas issues.

Point two, to seek support from the OCS policy council in making United States Department of Interior funds available probably through grants for impact mitigation until Congress can get its act together on the CARA bill.

At this point in time, all but a few coastal areas of the United States are closed to OCS leasing. And the new 5-year oil and gas lease sale planned for 2002, 2007 only includes tracts from Gulf of Mexico and from coastal Alaska.

Since the rest of the nation is leaving these areas to carry the burden of offshore oil and gas development, the OCS Policy Committee and Minerals Management Service should be looking for ways to support the local communities in these areas.

One way to do this is to do make impact mitigation funding available through the Department of Interior, since the CARA legislation has become bogged down by special interest and have no direct relationship with OCS or with the adverse impacts of OCS development.

In the meantime, the North Slope Borough, which I am the mayor of, and the Alaska Eskimo Whaling Commission can offer to continue to support the Secretary of Interior in her efforts to lobby Congress for the passage of a CARA-type bill.

To date, Minerals Management still has not found a way to address impacts to subsistence communities from outer continental shelf activities. The subsistence communities of northern Alaska are willing to work with Minerals Management Service on these issues, but they require financial support to be able to do this. And the North Slope Borough can no longer be able to pay for the funds to provide this type of support.

I think it's time for the Federal Government to step up and carry some of the financial burden that goes along with the impacts of oil and gas development activities on the North Slope subsistence communities.

The government has been able to avoid this responsibility to a large extent because of the North Slope Borough's willingness to take it on.

However, with declining revenues from Prudhoe Bay and no revenues coming to the Borough from any of the outer continental shelf activities, the North Slope Borough no longer can afford to provide financial support that is needed here.

It is in the Federal Government's and the Mineral Management's interest to have the local communities of the North Slope working with Minerals Management Service to address the unique issues related to the impacts of OCS development on subsistence and hunting cultures.

Northern Alaska is one of the few areas remaining in the United States where outer continental shelf oil and gas exploration is being carried out. If Minerals Management Service cannot work cooperatively with the communities there, the agency could face a situation where the local people begin to try to shut down the area, as well. If the local people join forces with the environmental organization, this could well become a problem. And war provides a perfect example what can happen.

Therefore, Minerals Management Service needs the local people to work with to address their issues. To work with the Minerals Management Service, however, the local people need financial support to enable them to attend meetings, keep track of and respond to constant flow of information from Minerals Management Service, other federal and State of Alaska agencies, the oil companies on any outer continental shelf activities.

Review and comment on planning, lease sale and permitting documents, keep all residents of the local communities informed and make sure that they have an opportunity to have input. This sometimes requires people from local organizations like the Alaska Eskimo Whaling Commission, which is a nonprofit organization, that manages the only co-management arrangement that the United States Government has in allowing them to control their subsistence for Bowhead whaling or the North Slope Borough must travel to all our of our villages, we have eight villages in the entire North Slope, to meet with the people there and talk to them about what is happening.

Most of them don't know what the heck is going on. In some cases, translators will be needed. In other cases, oil comments must be taped and then transcribed. These are just a few of the responsibilities that are created in the local communities as a result of outer continental shelf oil and gas activities.

The Department of Interior could do a lot to help these communities by making some grant funds available specifically for the purpose of covering the costs related to these activities.

Finally, the Alaska Eskimo Whaling Commission, an independent community of the Arctic Slope, which is our federally recognized tribe; and the North Slope Borough, a political subdivision of the state, have legitimate claims to the Department of Interior funds in a situation like this, because they represent native people. And the Department of Interior has a trust responsibility towards native people.

This is usually not a winning argument, but it's something to remind people of, especially during private discussions. So I leave this resolution for you. I wish consideration. We are very serious about this resolution because we have not seen any solutions thus far.

Our municipality is the only one that is bearing the cost of these impacts, social and cultural impacts, as a result of outer continental shelf leasing.

You have heard of the Northstar project. We had a lot of problems from it. Now you'll be hearing today possibly from the Alaska Regional Director about Liberty, which is another offshore well, and possibly after that the McCovey, which are totally offshore. But the problem has now escalated, and it is now snowballing on these cumulative impacts.

We are here. I wish that we take this resolution into serious consideration. We need your help. It's a plea for help. We can't take this on, the North Slope Borough, alone, by ourselves. With this resolution, I have already had the liberty to talk to staff of the Minerals Management Service, as well as the Chair and everybody else here. And we request that you support this resolution. Thank you very much.

MR. OLTZ: Thank you. As I said, we'll consider this tomorrow at the round table for further committee discussion at that point. At this time, I think we are ready to adjourn to the Topaz Room and find ourselves in a non-threatening situation and have some non-threatening discussions with one another.

MAYOR AHMAOGAK: Mr. Chairman, I think we have one organization that requested a public statement.

MR. OLTZ: I'm sorry. I didn't know that. Okay.

PUBLIC COMMENT - MAGGIE AHMAOGAK

MS. AHMAOGAK: Thank you for giving me an opportunity to speak. My name is Maggie Ahmaogak. I'm the Executive Director for the Alaska Eskimo Whaling Commission, a nonprofit organization comprised of the 10 coastal villages of Savoonga, Gambell, Little Diomede, Wales in the Bering Strait, Kiraling, Point Hope, Wainwright, and Barrow in the Chukchi Sea, Nuiqsut, Kaktovik in the Arctic Beaufort Sea.

I would like to speak to the resolution on the need to address the mitigation of impacts to local communities affected by offshore oil and gas activities. This resolution seeks to clarify that certain of the recommendations from the natural gas subcommittee, which were adopted by resolution of the OCS Policy Committee on May 24, 2001, are applicable to OCS oil issues, as well as OCS natural gas issues. This clarifies that the Department of Interior is responsible for impact mitigation for local communities in its oil development activities off the outer continental shelf.

In the meantime, the Alaska Eskimo Whaling Commission and the North Slope Borough will continue to support efforts to lobby Congress for the passage of CARA-type legislation. I am seeking the support of this OCS Policy Committee in the passage of this resolution.

The AEWC and its whaling captains join the Department of the Interior in acknowledging that Interior has long recognized the need to provide coastal impact assistance to those coastal states that are directly affected by OCS activities. I say this with a very strong feeling because we have already felt the impacts relating to Northstar. We are marching into another lease sale in the Arctic Beaufort Sea. There has been no provision for impact mitigation.

This resolution recalls the May recommendations to the Secretary that MMS include the mitigation of local, social, cultural and economic impacts within its policy determinations and recommendations with regard to improving the leasing process. The May resolution came out of the Natural Gas Subcommittee, and today's proposed resolution clarifies that MMS apply mitigation considerations in its policies with respect to oil exploration, development, and production.

At present, there is no incentive for the North Slope Borough to permit OCS activities because the Borough does not derive any benefits from leasing activities because these activities serve to impose hardship to our social and cultural way of life.

This resolution addresses that very important concern of the local communities on the North Slope, who bear all the risk of oil activities on the outer continental shelf. We need the OCS Policy Committee's support in passing this resolution to make sure our people see some mitigation of the risks they bear for continued oil activities permitted by MMS. Thank you.

MR. OLTZ: Thank you. I guess there are no other public announcements. I would entertain a motion to adjourn.

MR. KELLY: So moved.

MR. KITSOS: Seconded.

MR. OLTZ: We are adjourned.

(Meeting adjourned at 5:45 p.m.)