or fuels to fuel a vehicle. It is--

Chairman BARTLETT. Let me ask the Panel a question. Is there general agreement—we had a hearing several weeks ago on the available fossil fuel resources in the world. And there was general consensus that there is about a thousand giga-barrels of oil remaining in the world. That maybe if you are wildly optimistic about recovery that you might get almost that much more by recovery. But that thousand giga-barrels is not forever. That translates to roughly 30 years of use at present use rates. And if you factor in increased use rates, maybe that which we will find, maybe the enhanced recovery will give us enough to make up for the increased use rates.

The point I am trying to make is that we should—and I am trying to think of an analogy that really explains it. It is true that these fossil fuels are very cheap today. But those that are of high quality, gas, particularly, and oil, there is roughly 30 years remaining in the world. Just because they are cheap today, does that mean we should use them all today and let our kids and our grandkids worry about tomorrow? Certainly, they are cheap. But this is a finite resource that we need to husband and I don’t see us addressing that consideration hardly at all in our energy policy.

A better way of looking at the energy policy is that it is a giant hide-and-go-seek game. That God knew how
profligate we would be in the use of fossil fuels, so he hid
a very large amount out there and our only challenge is to go
find where he hid it. I think that a rational national energy
policy needs to reflect the fact that these high-quality,
readily available, cheap fossil fuels are not going to be
there forever and we need to consider that in our national
policy. Do you agree?

Mr. VAN KIRK. Certainly, it has to be--certainly, it has
to be considered and forecasts have to be made naturally.
And, certainly, we don’t want to leave our children and
grandchildren to suffer because of what we have done and
wasted. Excuse me. But as was mentioned a few minutes ago,
hydrocarbons--we humans have a lot of hydrocarbons in our
bodies. Coal, oil, gas, trees, plants, animals--it is a very
common substance on earth. And scientifically, we can
make--we can convert one to the other and back and forth in
the laboratory and in the field. Most of these
transformations are not profitable and they are not useful.
But some time in the future it may be that the price of a
particular resource might be such that competition from other
possibilities becomes profitable and reasonable and takes
over. I see oil and gas being produced for another few
hundred years, but not to fuel transportation. Something else
will fuel transportation and we will enjoy oil and gas to
make medicines and plastics, artificial things, synthetic
things, as we have talked about earlier today.

Chairman BARTLETT. But at the rate of their consumption today, we need to have a policy which husbands them or they won't be available for the next 2 or 300 years as a feed stock for the industries that mentioned.

Mr. VAN KIRK. I think the policy needs to be balance and forecasting realistic futures.

Chairman BARTLETT. How good a job are we doing at using byproducts? The better we do of using byproducts, the lower the cost of the ultimate fuel will be and the kinder we will be to our environment. Do we have an aggressive program to develop uses for these byproducts?

Mr. HUFFMAN. I guess I will try and speak to that, Mr. Chairman. Our company, for example, has developed a carbon fiber technology that uses what we call the bottom of the barrel, the pitch that comes out of the refining process. And many other companies are pursing similar technologies that will use the parts of the barrel of oil that in the past have considered debris or waste. We are seeing, as was mentioned earlier, gas-to-liquids technology, which allows us to actually separate in the Fisher-Tropsh process some of the impurities and byproducts and separate them into quantities that can be sold and delivered to markets.

So we are seeing the industry move in the direction of modifying the hydrocarbon molecule and utilizing all the
parts of that molecule as efficiently as possible. And I think we will continue to see that trend in the next 20 or 30 years, hopefully to the point where we are not burning gasoline in cars anymore and we are seeing other types of fuels that are by products of the hydrocarbon molecule. And we are using the carbon for certain things, such as carbon fibers, and composite materials. And I think that would be a very wise use in the long term.

The challenge we face, as you pointed out in the first Panel, is, how do you make that transformation quickly without disrupting the economy. And I think that is the balance that we have to keep in making those kind of transformations, working with government and industry together.

Chairman BARTLETT. Mr. Huffman, I would like to comment briefly on your suggestion for the USE Center, the U.S. Energy Center. We have been concentrating here in these two hearings this morning--these two Panels this morning, on the availability internationally of gas and oil and somewhat on the availability here in this country. I would like to point to another dimension that makes your U.S. Energy Center even more needed. We have 2 percent of the known reserves of oil in the world. We consume 25 percent of the world's oil. This is clearly a prescription for disaster. At the time of the Arab Oil Embargo when we, in effect, went screaming into the

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night because of the problems that we were facing. We imported 35 percent of our oil. Today, we import 56 or more percent of our oil. From a national security viewpoint, we desperately need the kind of a center that you point to.

And freeing ourselves from our dependence on these high-quality fossil fuels, gas and oil, isn't just an economic consideration. It is a national security consideration. We cannot afford to be held hostage by the rest of the world because we produce so little of the oil that we use in this country. With only 2 percent of the known reserves in this country, we clearly face a very uncertain energy future. And I would concur with you that we need the equivalent of the national effort that we put into putting a man on the moon.

By the way, there are 200-and-some industries in Maryland alone that wouldn't be there if it weren't for the spin-off that came to that. No longer does government push the envelope. We now are buying most of the stuff we put in our space and our military equipment, we are buying it what we call COTS, commercial-off-the-shelf. And I would like to see an effort equivalent to putting a man on the moon to do something about energy. We face a very uncertain energy future worldwide. And particularly in this country, with having only 2 percent of the known reserves of oil, we face a very, very uncertain energy future that impacts our national
security. And I think that should be reason enough to justify
a center of that magnitude.

Let me recognize my colleague if he has additional
questions or comments.

Mr. COSTELLO. Mr. Chairman, I do not. I thank the
witnesses for being here today and I thank you for calling
the hearing.

Chairman BARTLETT. I want to thank the witnesses. Thank
you very much for your testimony. This has been a productive
hearing, I think. And we will now be in adjournment.

[Whereupon, at 12:55 p.m., the Subcommittee was adjourned.]
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Obtained and made public by the Natural Resources Defense Council, May 2002
Dear [Name],

It was great to see you in your new role. The idea of [industry] that goes is good. I am looking forward to working with you all. Enclosed are a couple of INCAH's energy policy packets. We do not yet have a pipeline...
Safety in these materials. We will forward the study on pyrrole ingestion, terephthalic acid, and potential disruptions as soon as it is available.

Sincerely,
[Signature]
Mr. Ron Bailey, Jr.
PRM Energy Systems, Inc.
504 Windamere Terrace
Hot Springs, Arkansas 71913

Dear Mr. Bailey:

Thank you for your letter of June 21, 2001 to Vice President Dick Cheney, regarding your concern with information printed in the National Energy Policy. Your letter has been forwarded to me for a response. My office oversees research in the development of a number of renewable energy technologies, including the conversion of biomass resources for power generation.

We recognize your exception to the characterization of the FERCO gasifier technology contained in the National Energy Policy Report. We have also been concerned that, in the process of preparing this important and anxiously awaited energy strategy document, clarifying language was inadvertently deleted. The passage would more correctly have read: "...the world's first medium-Btu biomass gasification system for electricity production." We appreciate the very valuable contribution that your company and your technology are making to the energy mix in the United States and the world. Your continuing efforts to market and improve the PRM technology, as you point out in your letter, provide important economic development and environmental benefits. Please rest assured that the FERCO gasifier project, which has been the subject of Congressionally-directed funding for the past several years, is held to specific performance metrics which it has successfully met in the course of attracting substantial private investment.

Please accept our apologies for this unfortunate editorial mishap. We wish you and your company every success and hope, perhaps one day, to participate with you in a project.

Sincerely,

Donald K. Richardson
Director
Office of Biopower and Hydropower Technologies
Energy Efficiency and Renewable Energy

[Signature]

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Obtained and made public by the Natural Resources Defense Council, May 2002
September 20, 2001

The Honorable Spencer Abraham
Secretary of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Mr. Secretary:

Enclosed are numerous unsolicited proposals and idea papers that we received from citizens from all across the country during the development of the National Energy Policy, and in the months to follow. Many of these individuals and companies have already received correspondence and acknowledgment from the NEPDG and/or the Vice President’s office.

What most of these citizens are looking for, however, is for review and consideration of their proposals and ideas by program professionals. In turn, we would appreciate your vetting these proposals out to the appropriate departments within your agency for review. If you would, please have the appropriate staff respond with a direct reply to each of these individuals or companies.

Thank you for your assistance. I know these citizens will greatly appreciate receiving a response from the Department of Energy.

Sincerely

Andrew D. Lundquist
Director, National Energy Policy Development Group

Obtained and made public by the Natural Resources Defense Council, May 2002
The Secretary of Energy
Washington, DC 20585

September 21, 2001

The Honorable Paul Schell
Mayor of Seattle
Seattle, WA 98104-1873

Dear Mayor Schell:

Thank you for your letter to President Bush regarding the National Energy Plan (NEP) and your interest in energy conservation. The NEP, released on May 16, 2001, contained 105 recommendations to improve our energy future. Of those, 54 dealt directly or indirectly with energy efficiency and renewable energy.

This Administration strongly supports energy efficiency as one of the building blocks to a strong energy policy while recognizing the need to increase supply. Adding additional fuel supplies will reduce our dependence on foreign sources and increase our energy independence. An entire chapter of the Plan discusses the importance of savings gained by energy efficiency and outlines a broad scope of activities to improve efficiency throughout the Federal Government and beyond.

We are moving ahead in our efforts to implement many of NEP recommendations. The Office of Energy Efficiency and Renewable Energy (EERE) is in the process of performing a strategic program review to prioritize programs and clarify the linkages of research with real world outcomes. Additionally, EERE held a series of public meetings across the country in June to receive public comments on the objectives of the current energy efficiency and renewable energy research, development, demonstration, and deployment programs and whether these programs are achieving intended objectives. In response, we received comments from approximately 5,000 people and organizations. Our energy efficiency and renewable energy programs will contribute to an improved energy future for our Nation when the above efforts are completed.

If you have any further questions, please contact me or Mr. Dan R. Brouillette, Assistant Secretary for Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

Spencer Abraham

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Obtained and made public by the Natural Resources Defense Council, May 2002
The Honorable Jeff Bingaman  
Chairman  
Committee on Energy and Natural Resources  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:


Enclosed are the answers to seven questions requested by Senator Murkowski. The three remaining answers are being prepared and will be forwarded to you as soon as possible.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Barbara Barnes at (202) 586-6341.

Sincerely,

Dan R. Brouillette  
Assistant Secretary  
Congressional and Intergovernmental Affairs

Enclosures
From Senator Murkowski:

Alaska Oil and Gas:

I am pleased to see that the National Energy Policy encourages the development of the 1002 Area of ANWR.

I am also pleased to see the Administration encouraging the development of a natural gas pipeline to bring Alaska natural gas to market in the Lower 48.

1a. To what extent do these provisions constitute a key portion of your National Energy Policy?

1b. In your opinion, are financial incentives necessary to develop these resources, or is it simply a matter of access to lands for development and pipeline siting?

The Alaska Natural Gas Transportation Act (ANGTA) directed the President to appoint a Federal Inspector to ensure expedited construction of an Alaska gas pipeline.

The Energy Policy Act of 1992 abolished that position but transferred the Federal Inspector's functions and authorities to the Secretary of Energy. These functions and authorities are the keys to expediting construction of the pipeline.

2. Do you currently have the staff and resources to carry out the function and authorities of the Federal Inspector?

Energy Efficiency:

The National Energy Policy indicated that energy efficiency and improved energy conservation should be made a "national priority"

1. How do you as Secretary of Energy plan to translate this "priority" into concrete action?

2. Other than tax incentives for consumer purchase of new energy efficient technology, what policy options exist?

Fuel Economy/CAFÉ:

The National Energy Policy deferred on the question of increased CAFÉ standards for auto fuel economy until the National Academy can finish its review as directed by Congress last year.
1. Are there options to improve auto fuel economy — other than CAFÉ standards — that you will consider?

**Renewable Energy:**

Over just the past five years, we’ve spent $1.5 billion on renewable energy R&D and another $5 billion on tax incentives.

Yet the proportion of renewable energy in our total energy mix has remained the same, around 5%.

1. In your opinion, what is a realistic view of renewables as a portion of our energy mix over the next 10-20 years?

2. Are there specific applications or sectors in which renewables are more likely to contribute?

As part of the National Energy Policy, you have been directed to carry out a review of all energy efficiency and renewable energy R&D programs — and focus on those that are "performance based".

1. Does this imply a greater focus on “proof of concept” demonstration projects over basic research?

2. Are plans under way for such a review and when do you expect such a review might conclude?
From Senator Dorgan:

1. I have been working closely with DOE and WAPA to increase the amount of renewable power purchased by the federal government. I have understood that the Administration would stand by its commitment to purchase energy from WAPA through a new "green tags" program. This program would solicit 60-70 megawatts of renewable power from anywhere within WAPA's territory for sale to the federal government.

Is the Department still committed to ongoing efforts to purchase and develop such a renewable energy program?
QUESTIONS FROM SENATOR MURKOWSKI

Alaska Oil and Gas

Q1a. I am pleased to see that the National Energy Policy encourages the development of the 1002 Area of ANWR. I am also pleased to see the Administration encouraging the development of a natural gas pipeline to bring Alaska natural gas to market in the lower 48. To what extent do these provisions constitute a key portion of your National Energy Policy?

A1a. These provisions are a key portion of the National Energy Policy in meeting our Nation’s needs for oil and natural gas. The U.S. Geological Survey 1998 assessment of the greater 1002 area indicates technically recoverable resources ranging from 5.7 to 16 billion barrels of oil, and from 0 to 10 trillion cubic feet of natural gas. Additionally, the U.S. Geological Survey estimated that Northern Alaska has 35 trillion cubic feet of commercially recoverable natural gas. These significant resources are keys to meeting the Nation’s energy needs.

Q1b. In your opinion, are financial incentives necessary to develop these resources, or is it simply a matter of access to land for development and pipeline siting?

A1b. The U.S. Geological Survey’s 1999 economic analysis of its 1998 assessment of the 1002 Area alone indicates that about half of the technically recoverable oil resources (2.03 to 9.38 billion barrels of oil, and from 1.04 to 3.72 trillion cubic feet of associated natural gas) are economically recoverable at today’s prices using today’s technology. This indicates that market forces provide adequate financial incentive to develop these resources. However, in addition to this economic assessment, the Department of Energy, in partnership with the industry, is developing advanced technologies that will reduce the costs of recovery and environmental compliance, and increase recovery and environmental protection.

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QUESTIONS FROM SENATOR MURKOWSKI

Alaska Oil and Gas

Q2. The Alaskan Natural Gas Transportation Act (ANGTA) directed the President to appoint a Federal Inspector to ensure expedited construction of an Alaskan gas pipeline.

The Energy Policy Act of 1992 abolished that position but transferred the Federal Inspector's functions and authorities to the Secretary of Energy. These functions and authorities are the keys to expediting construction of the pipeline.

Do you currently have the staff and resources to carry out the function and authorities of the Federal Inspector?

A2. Subsequent to the abolition of the Federal Inspector's Office by the Energy Policy Act of 1992, there has been little activity related to the proposed natural gas pipeline from Alaska's North Slope. In the absence of any activity there are no Department staff or resources assigned to perform the functions of the Federal Inspector's office.

The infrequent requirements for analysis or comment on the Alaskan Natural Gas Transportation System (ANGTS) has been handled by the Office of Fossil Energy and the Office of General Counsel. This same staff has been conducting the initial coordination between our Department and other Federal agencies, as well as consultations between our Department and Canadian government agencies and the State of Alaska in preparation for a possible filing concerning the ANGTS or other North Slope gas project.

Should a filing be made for the ANGTS and it becomes necessary for the Department to exercise the authorities of the Federal Inspector, we would assign qualified staff from other program areas to meet the requirements of carrying out the responsibilities of the Federal Inspector's authority.
QUESTIONS FROM SENATOR MURKOWSKI

Energy Efficiency

The National Energy Policy indicated that energy efficiency and improved energy conservation should be made a "national priority."

Q1. How do you as Secretary of Energy plan to translate this "priority" into concrete action?

A1. The National Energy Policy will build upon our nation's successful track record and will promote further improvements in the productive and efficient use of energy. Of the 105 recommendations in the Policy, over twenty of these recommendations address energy efficiency, either directly or indirectly. These actions promote conservation in residences, commercial establishments, industrial sites, electrical power plants, and transportation. Implementing these actions will enable us to continue our trend of decreasing energy use per dollar of GDP, while improving our standard of living.

Q2. Other than tax incentives for consumers purchase of new energy efficient technology, what policy options exist?

A2. This Policy report uses almost every tool available in order to promote energy conservation. Allow me to provide a few examples from the Policy:

Education: One recommendation directs the EPA Administrator to develop and implement a strategy to increase public awareness of the sizeable savings that energy efficiency offers to homeowners across the country.
Information: Another recommendation directs the Secretary of Energy to promote greater efficiency by expanding and extending the application of the Energy Star labeling program.

Executive Directive: This recommendation directs the heads of executive departments to take appropriate actions to conserve energy at their facilities.

Financial Incentives for Industry/Utilities: One recommendation directs the Secretary of Treasury to work with Congress to encourage energy efficiency through Combined Heat and Power projects by shortening their depreciation life.

Standards: This recommendation directs the Secretary of Transportation to review and provide recommendations on establishing Corporate Average Fuel Economy Standards for the U.S. automotive industry.

Federal R&D: This recommendation directs the Secretary of Energy to review and provide recommendations on the appropriate level of energy efficiency program funding.