

UNITED STATES OF AMERICA  
DEPARTMENT OF ENERGY

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NATIONAL PETROLEUM COUNCIL

+ + + + +

120<sup>th</sup> MEETING

+ + + + +

TUESDAY  
SEPTEMBER 14, 2010

+ + + + +

The National Petroleum Council met in the Ballroom of the Willard Inter-Continental Hotel, 1401 Pennsylvania Avenue N.W., Washington, D.C., at 9:00 a.m., Claiborne P. Deming, Chair, presiding.

PRESENT:

CLAIBORNE P. DEMING, Chair, National  
Petroleum Council  
GEORGE A. ALCORN, SR., Acting Chair, NPC  
Nominating Committee  
D. CLAY BRETCHES, Chair, Coordinating  
Subcommittee, NPC Committee on Resource  
Development  
LINDA A. CAPUANO, Chair, Coordinating  
Subcommittee, NPC Committee on Future  
Transportation Fuels  
CLARENCE P. CAZALOT, JR., Chair, NPC  
Committee on Future Transportation  
Fuels  
CHARLES D. DAVIDSON, Chair, NPC Finance  
Committee

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## PRESENT (continued):

MICHAEL B. G. FROMAN, Deputy Assistant to  
the President and Deputy National  
Security Advisor for International  
Economic Affairs

JAMES T. HACKETT, Chair, NPC Committee on  
Resource Development

MARSHALL W. NICHOLS, Executive Director,  
National Petroleum Council

DANIEL B. PONEMAN, Deputy Secretary of  
Energy

DAVID J. O'REILLY, Vice Chair, National  
Petroleum Council

MATTHEW C. ROGERS, Senior Advisor to the  
Secretary of Energy

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## C-O-N-T-E-N-T-S

Introductory Remarks . . . . .	3
Remarks by the Honorable Daniel B. Poneman, Deputy Secretary of Energy . . . . .	6
Remarks by the Honorable Michael B. G. Froman, . . . . .	36
Deputy Assistant to the President, Deputy National Security Advisor for International Economic Affairs	
Progress Report of Study on Future Transportation Fuels . . . . .	51
Chair Clarence P. Cazalot, Jr. Future Transportation Fuels Chair Linda A. Capuano Coordinating Subcommittee	
Progress Report of Study on Prudent Development of North American Natural Gas and Oil Resources . . . . .	71
Chair James T. Hackett, Committee on Resource Development Chair D. Clay Bretches, Coordinating Subcommittee	
Administrative Matters	
Report of Finance Committee . . . . .	85
Vote to adopt report . . . . .	88
Report of Nominating Committee . . . . .	88
Vote to adopt report . . . . .	91
Memorial Tributes to: . . . . .	92
Robert A. Mosbacher Frank M. Burke, Jr. Matthew R. Simmons	
Adjournment . . . . .	95

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1 P-R-O-C-E-E-D-I-N-G-S

2 9:05 a.m.

3 CHAIR DEMING: Good morning,  
4 ladies and gentlemen.

5 Will the 120th Meeting of the  
6 National Petroleum Council please come to  
7 order.

8 Welcome to all of you, members of  
9 the Council, honored guests and members of the  
10 press, and public. We have, what I think, is  
11 an informative meeting this morning, but a  
12 very full agenda.

13 For the members of the Council if  
14 there is no objection, I will dispense of the  
15 calling the roll. The check-in inside the  
16 Crystal Room will serve as our official  
17 attendance record. Any member or observer for  
18 a member who has not checked in, please do so  
19 before you leave to ensure we have an accurate  
20 record of today's attendance.

21 I would like to introduce to you,  
22 and for the record, the participants at the

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1 head table.

2 On my immediate right is the  
3 Honorable Daniel Poneman, Deputy Secretary of  
4 Energy representing the Council's Co-Chair,  
5 the Honorable Steven Chu, Secretary of Energy  
6 who is unavailable to be here this morning.

7 Mr. Poneman, we are pleased that  
8 you are here with us this morning.

9 Next is the Vice Council of the  
10 Chair Dave O'Reilly.

11 And next is Jim Hackett, Chair of  
12 the NPC Committee on Resource Development.

13 On my left is the Honorable  
14 Michael Froman, Deputy Assistant to the  
15 President and Deputy National Security Advisor  
16 for International Economic Affairs.

17 Next to Mike is Clarence Cazalot,  
18 Chair of the NPC Committee on Future  
19 Transportation Fuels.

20 And next is Marshall Nichols, the  
21 Council's Executive Director.

22 Our first order of business this

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1 morning is to hear from the Deputy Secretary  
2 of Energy. Mr. Poneman, we are honored to  
3 have you again here this morning and look  
4 forward to your remarks.

5 Please join me in welcoming Daniel  
6 Poneman, Deputy Secretary of Energy.

7 DEPUTY SECRETARY PONEMAN: Thank  
8 you, Claiborne, for your introduction and for  
9 the leadership you have shown in this  
10 organization.

11 I'd like to acknowledge my friends  
12 and colleagues up here also. David O'Reilly,  
13 the NPC Vice Chair, Jim Hackett who is  
14 Chairing the Research Study, Clarence Cazalot,  
15 who is Chairing our Fuel Study, as well as  
16 Marshall Nichols.

17 It's a <sup>very</sup> please to be here. And  
18 Secretary Chu regrets he cannot be here today.  
19 He's on official travel elsewhere, but he  
20 sends his regards and his gratitude to all of  
21 you thanking you for the time, advice and the  
22 service that you have rendered and are

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1 rendering to the Department and to the nation.

2 I want to take a special moment to  
3 pause and thank my friend and colleague Mike  
4 Froman for coming here.

5 It was told to me a few weeks ago  
6 that there used to be a day in the NPC where  
7 it was common to sort of widen the aperture  
8 and bring in other perspectives; and I think  
9 that was a nice way of saying bring someone  
10 who actually knows something to the table.  
11 And when I thought of who in the U.S.  
12 Government can speak knowledgeably and  
13 authoritatively as to the thinking of the  
14 President in terms of matters economic and  
15 energy, there's only one name to think of, and  
16 that's Mike Froman. So, Mike, I'm  
17 particularly grateful you could join us here  
18 this morning.

19 The capabilities that reside in  
20 this room when it comes to energy and  
21 technology and creating a new energy future  
22 for this nation are impressive. The

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1 membership here embodies a vast array of  
2 expertise, and I wanted to extend a  
3 particularly warm welcome to those new members  
4 of the NPC who are here. We have in this  
5 respect as well, I think it is fair to say  
6 widened the aperture. We've got state  
7 regulators, we've brought in people from  
8 academia, from the scientific community, from  
9 public interest groups; all of which I think  
10 will enrich and deepen the conversations in  
11 the studies that you'll <sup>prepare?</sup> have here.

12 Everyone here knows well the  
13 fundamental truth that energy courses through  
14 fiber and <sup>s</sup>sinewy of our economy, and indeed,  
15 of the world economy. It is the lifeblood of  
16 our prosperity. Access to energy resources is  
17 of vital national security importance. And,  
18 of course, we are all of us focused as well on  
19 the long-term climatic implications of the  
20 energy choices that we are making and not only  
21 in the context of the climate, but also the  
22 competition for resources. For those of you,

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1 and I'm sure most of you had<sup>✓?</sup> read, the studies  
2 of the Center for Naval Analyses on the shifts  
3 in resource allocations that climate change  
4 can bring and the potential that brings for  
5 instability, flooding, regional tensions and  
6 worse.

7           So how we use and produce energy  
8 today is, and will remain fundamental to our  
9 economic security and environmental future.  
10 It can carry us all to much greater  
11 prosperity, but if we do not all of us do our  
12 parts as stewards of these resources and of  
13 the environment, the consequences can be  
14 tragic, as we have seen lo these many months  
15 in the Gulf Coast.

16           So for the sake of our prosperity  
17 and our security we must work together to  
18 build in a new energy future where we use  
19 energy efficiently and rely on clean domestic  
20 sources of energy. As President Obama and  
21 Secretary Chu have repeatedly made clear, this  
22 is in our national interest and we believe

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1 that we need to play a leading role in that  
2 upcoming and actually occurring clean energy  
3 revolution. As the President said "Who leads  
4 the clean energy revolution, will lead the  
5 world."

6 The President is committed to  
7 building that economy in order to enhance our  
8 prosperity, to enhance our security, to create  
9 jobs and to mitigate the risk of climate  
10 change.

11 Now we recognize this transition  
12 will not happen overnight. And we know  
13 whether you look at the EIA statistics or the  
14 IEA, or any of the other alphabetic  
15 nomenclature that we've got, spanning out into  
16 decades to come we're going to be continuing  
17 our reliance on fossil fuels. And if you look  
18 at the demographics in Asia, you're going to  
19 see in the latest EIA studies a much greater  
20 reliance in some parts of the world as their  
21 development proceeds. So, that's a reality  
22 that we acknowledge. We need to make sure

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1 that we use our fossil energy resources  
2 safely, responsibly and efficiently. And, of  
3 course, I think this will be much discussed  
4 here later today, even within the fossil fuel  
5 category we're witnessing dramatic shifts in  
6 the area of natural gas which are actually  
7 some of the most interesting developments that  
8 we have witnessed out there in terms of  
9 further development of our shale gas and  
10 coalbed methane.

11 We are looking across a much wider  
12 portfolio than that. Secretary Chu likes to  
13 call energy efficiency not low-hanging fruit,  
14 but the fruit that's lying on the ground. We  
15 can, I think, pick up tremendous gains.  
16 Obviously, you know if you're looking in terms  
17 of greenhouse gas emissions, buildings alone  
18 account for something like 40 percent.

19 We have done a great deal with the  
20 President's leadership to bring nuclear back  
21 as a viable energy choice in our future. If  
22 you're looking for how to get large amounts of

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1 baseload carbon-free electricity, nuclear is  
2 an obvious choice. Over 50 reactors are being  
3 built around the world today.

4 We have moved in this country in a  
5 couple of important directions.

6 Number 1: Through our loan  
7 guarantee program. I had the opportunity to  
8 travel to the IEW Headquarters in Maryland  
9 where he announced the \$8 billion loan  
10 guarantee for the Vogel Plant down in Georgia.

11 The President asked Secretary Chu  
12 to address some of the back end fuel cycle  
13 issues that have been difficult over the  
14 years, to set up a Blue Ribbon Commission,  
15 which we have distinguished leadership from  
16 former General Brent Scowcroft and former  
17 Congressman Lee Hamilton to help provide  
18 recommendations and choices on a path forward  
19 there.

20 And we're also moving out  
21 internationally to try to develop, as the  
22 President asked us to in his Prague speech of

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1 April 2009, a new international framework for  
2 peaceful nuclear cooperation that's based on  
3 a provision of reliable fuel services to new  
4 countries entering the nuclear market.

5 We are moving into biofuels, into  
6 wind, into solar, into geothermal. I think  
7 you'll hear about more of these in the course  
8 of today.

9 The challenge, of course, is that  
10 if my friend and colleague Dr. Koonin was  
11 here, he would bring his charts that show the  
12 typical glide path of the entry and decline of  
13 different sources from wood, to coal, to oil,  
14 and this typically spans over decades. We're  
15 much more ambitious and we're trying to jump-  
16 start some of these changes and to move them  
17 more quickly than has been the case in the  
18 past. That, in turn, is going to require  
19 sustained commitment and it's going to require  
20 fresh thinking. I think it's going to require  
21 a new paradox.<sup>ign</sup>

22 I was talking to some of our study

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1 group leaders last night. And we were  
2 recalling some of the unanticipated  
3 consequences of earlier technological  
4 transitions. And I was reminded of the  
5 expectation of automobiles when they were  
6 being brought in to replace the horse and  
7 buggy. So I just might note this from a  
8 history I found on the subject last night  
9 after our dinner.

10 They said "That pessimists who  
11 feared the new machines might transform  
12 American life for the worst, announced them as  
13 devil wagons, condemned their breakneck speeds  
14 and criticized motorists for violating basic  
15 standards of decency. We hear of roads made  
16 impossible for anything besides automobiles,  
17 of homes rendered uninhabitable because of  
18 dust and noise, and of roads destroyed with  
19 such rapidity as to put undue burdens upon the  
20 local taxpayers."

21 Obviously, while all for the  
22 issues that have been important in the

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1 development of transportation, these are not  
2 the issues that we have had any concerns about  
3 in the last several decades.

4 By the same token, I think that we  
5 need changes in a paradigm in imagination on  
6 the production side. You know, we all read in  
7 our college years about Henry Ford doubling  
8 the wage to \$5 a day had tremendous effect on  
9 the quality of the workers and the work force  
10 and on, frankly, creating the demand to buy  
11 the Model T Ford, and that's before you can  
12 get to some of the innovations he had in terms  
13 of vertical integration of manufacturing.

14 So, we need leveraged efforts, we  
15 need new partnerships, we need to draw on the  
16 capabilities of Government, industry, academia  
17 and stakeholders. And I view this really as  
18 a partnership.

19 We need your technologies, your  
20 leadership skills, your global relationships  
21 and your ability to deploy technology at  
22 scale. We have been doing a lot, and I'm

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1 going to talk in minute about my colleague  
2 Matt Rogers, through our efforts under the  
3 Recovery Act to deploy a cross report folio,  
4 investments to support a variety of new  
5 technologies.

6 We do not think that Government  
7 has the answer to which the path forward is.  
8 What we're trying to do is to stimulate a  
9 number of potentially promising technologies  
10 in the hope and expectation that those of them  
11 that are viable will be, in turn, picked up by  
12 you all, picked up by the private sector and  
13 carried forward. There are some good examples  
14 of where that's worked successfully, and I'll  
15 come back to that in just a moment.

16 But in fact, this set of  
17 challenges I think very much requires the  
18 input, thought and expertise of the people in  
19 this room, and that is exactly why Secretary  
20 Chu asked the National Petroleum Council to  
21 provide advice on two important issues. And  
22 we're very conscious of the effort that's

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1 required to put into each and every one of  
2 these studies, would not have asked for two if  
3 it weren't something that he deemed truly  
4 important.

5           So, we are very much looking  
6 forward to the results, and we've been briefed  
7 on the progress so far of the Future  
8 Transportation Fuel Study and the study on the  
9 Prudent Development of North American Natural  
10 Gas and Oil Revenues.

11           We believe that there are clear  
12 linkages in areas of residence between the  
13 Council's studies and the Administration  
14 goals:

15           In terms of the deployment of  
16 clean secure energy;

17           In terms of the promotion of our  
18 economic prosperity by leading the global  
19 energy economy;

20           In terms of leadership in reducing  
21 greenhouse gas emissions;

22           Leadership in environmentally

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1 sustainable energy strategies, and;

2 Fundamentally, the deployment of  
3 our tremendous reservoir of scientific and  
4 technology discovery.

5 I admit we have high expectations  
6 for this study given the caliber of the  
7 leadership and the effort that's already been  
8 developed. We are looking forward to these  
9 two studies to develop realistic and viable  
10 solutions to our energy challenges while also  
11 considering new business models, new  
12 possibilities and new paradigms. And I do  
13 want to emphasize, we're not looking for a  
14 point solution. We're looking for a set of  
15 parameters, a set of variables and how if one  
16 has certain objectives in terms of outcome,  
17 how we might design our future to try to  
18 optimize those outcomes.

19 I think it depends on creating a  
20 shared vision with industry and other  
21 stakeholders about how to reduce greenhouse  
22 gas emissions, and in that respect I'm very

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1 pleased that the study groups themselves, just  
2 as the NPC has done, have diversified the  
3 sources of advice that they are getting. And  
4 Secretary Chu and I believe that the NPC is  
5 uniquely positioned to provide advice to the  
6 Department in both of these study areas.

7 So, let me just say a word quickly  
8 about each, and then I'll pause if we time for  
9 a few questions.

10 On the Fuel Study. To reduce  
11 carbon pollution and our reliance on oil while  
12 strengthening our energy security, the  
13 Department has been working to transform the  
14 transportation sector. And here too, as I  
15 mentioned a few minutes ago, we are taking a  
16 portfolio approach.

17 The Recovery Act is supporting  
18 instruction and operation of 19 biorefinery  
19 plants that will produce advanced biofuels,  
20 biopower and bioproducts using biomass  
21 feedstocks.

22 Our biomass program is helping to

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1 develop cost competitive advanced biofuels.  
2 ARPA-E, I think several of you had a chance to  
3 meet our leader of ARPA-E, Arun Majumdar who  
4 was here last evening.

5           It's supporting innovative  
6 research into ways to use microorganisms to  
7 harness chemical or electrical energy, to  
8 convert carbon dioxide into liquid fuels. And  
9 then through the Recovery Act and our Advanced  
10 Technology In Vehicle Manufacture and Loan  
11 Program the DOE has invested more than \$8  
12 billion in loan guarantee to support the  
13 development and manufacturing and deployment  
14 of the batteries, components, vehicles and  
15 chargers necessary to put millions of vehicles  
16 on American roads that will help get us to  
17 that low carbon future.

18           And here again I want to note,  
19 within this sector we also take the portfolio  
20 approach from the \$5.9 billion loan to Ford  
21 for incremental improvements of the internal  
22 combustion engine, which is something that

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1 they've such a significant market share; even  
2 if you make a modest gain, you get a  
3 significant pay off to much more revolutionary  
4 approaches over to the pure electric vehicles  
5 that we have supported through our loan  
6 guarantees to Tesla and Nissan for LEAF. Just  
7 opened a battery factory out there in  
8 Tennessee. And also we have a play on the  
9 Plug-in-Hybrid Fund through our Fisker  
10 transaction.

11 So we think that the Fuel Study  
12 can portray a number of possible pathways and  
13 scenarios for achieving what Secretary Chu  
14 when he met with Claiborne and some of the  
15 leaders talked about as a stretch goal of a 50  
16 percent reduction in greenhouse gas emissions  
17 by 2050 in the U.S. transportation sector, and  
18 that the study will help us identify the most  
19 pivotal challenges for bringing these new  
20 fuels and vehicles to market and particularly  
21 help us in figuring out what play and what  
22 appropriate role the Government should play in

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1 that effort.

2 Now a word about the Resource  
3 Study. The second study is needed now more  
4 than ever. Certainly we realize it now more  
5 than at the time we decided together to work  
6 on the study.

7 The oil spill this summer has  
8 concentrated everybody's minds appropriate on  
9 the responsible development of our own natural  
10 gas and oil resources in North America. And  
11 it is central to getting this right that we  
12 fully understand and characterize the risks  
13 and manage them appropriately and responsibly.  
14 And I think these are factors, Clarence, that  
15 the study will be taking into account.

16 The NPC Resource Study can help  
17 promote understanding of what we need to do  
18 and how we need to think about it in terms of  
19 the responsible development of North American  
20 natural gas and oil resources, and help expand  
21 insights on the future contribution of natural  
22 gas to a clean energy economy.

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1           Without prejudging the outcome or  
2 conclusions of this study, we see a tremendous  
3 potential in natural gas to contribute to  
4 these challenges, to reduce our dependence on  
5 oil. And again last night in the study group  
6 session we were talking about the dramatic  
7 effect that the discovery these shale gas  
8 resources has had on some of the traditional  
9 ways we think about natural gas and energy  
10 security globally.

11           Obviously, a great potential to  
12 lower greenhouse gas emissions in the power  
13 sector, and also the play between the gas  
14 plants and the intermittent sources such as  
15 wind is really critically. Because,  
16 obviously, by definition if you have an  
17 intermittent wind source, you can't really  
18 optimize its use and manage your load  
19 efficiently if you don't have some kind of  
20 backstopping mechanism that you can quickly  
21 spin-up, and gas is the obvious play there.

22           Now one of the things that we say

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1 in our management principles at the DOE is  
2 that science and technology lie at the heart  
3 of our mission. One might almost say the  
4 heart and soul of our mission. I would posit  
5 to you that I think the same thing is true  
6 here.

7 That it is American innovation  
8 going back to the roots of this industry -  
9 where's Dan Yergin when I need him - that have  
10 been a tremendous source of American success  
11 and America prosperity. And we continue to  
12 repose great confidence in the innovative  
13 spirit and technology of the American people  
14 and of the people that you are able to bring  
15 to the task in your companies to find the  
16 optimal energy choices in the future to lessen  
17 the impact of some of the adverse  
18 consequences, and to define a responsible path  
19 forward.

20 I would just note in terms of how  
21 I think one might think about the way the  
22 United States Government can have the kind of

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1 relationship and appropriate roles and  
2 responsibility to vis-à-vis industry of the  
3 case in fact of gas.

4 In 1978 we had two very small  
5 programs at the Department of Energy. People  
6 who were there then, and I wasn't one of them  
7 just graduating from college, say that there  
8 was not interest in energy at that point in  
9 pursuing these things. But we invested \$30  
10 million in coalbed methane from 1978 to 1982  
11 and \$137 million in shale gas from 1978 to  
12 1992.

13 Last year we got 2 trillion cubic  
14 feet from shale gas, and 1.75 trillion cubic  
15 feet from coalbed methane from that small  
16 investment. Now, that wasn't the only thing  
17 that happened. Then the Gas Institute got  
18 involved, and there were tax benefits that got  
19 involved. So I think we have to think about  
20 a life cycle and the appropriate role for  
21 Government, regulators and industry in  
22 bringing some of these new technologies to

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1 market. But the results, as in the case of  
2 shale gas, can be quite dramatic when it's  
3 well managed.

4 I don't want to go on too long. I  
5 want to leave time for a couple of questions,  
6 and more importantly for Mike Forman. I will  
7 not, unfortunately, be able to stay for the  
8 full session. I have been briefed on both  
9 studies. We are very pleased on how they're  
10 progressing.

11 I will leave you in the capable  
12 hands of our Co-Chairs, Clarence and Jim. And  
13 at the Chair you will have from the Department  
14 of Energy Matt Rogers. And I just want to say  
15 one word about Matt.

16 Matt was the one who stepped in to  
17 a new Department with a new Energy Secretary  
18 and new legislation that deposited something  
19 like \$36.7 billion out of Recovery Act  
20 funding. And when I first met Matt he said I  
21 got two challenges, one, to spend it fast,  
22 and, two, to spend it smart. And I would not

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1 wish to repose confidence in anyone more than  
2 Matt in how he has done a brilliant job in  
3 that, and done a tremendous service to this  
4 nation, to the Secretary and to the President,  
5 for which we're all grateful.

6 On behalf of Secretary Chu, again,  
7 I want to thank the Council for undertaking  
8 these studies. Now, more than ever, we need  
9 the insights and experiences, and the wisdom  
10 of the people in this room, the best minds in  
11 the nation, on these issues. It's going to  
12 require the continued cooperation that has, I  
13 think, characterized NPC/U.S. Government  
14 relations since the day of Harry Truman in  
15 1946 when this was set up.

16 The diversity and perspective that  
17 you bring is going to be of value and a  
18 virtue, in and off itself. And the broad array  
19 of companies and stakeholders, organizations,  
20 expertise is going to be invaluable I think to  
21 the results of the study. It will guide the  
22 discussion that we're going to have here in

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1 the coming years, and it's well that it  
2 should. Because the stakes really from an  
3 economic perspective, from an environmental  
4 perspective, from a national security  
5 perspective could not be higher.

6 So with that, I will thank you.  
7 Wish you every success with your work. And  
8 I'd pause for a couple of questions if we have  
9 time.

10 CHAIR DEMING: Absolutely.

11 DEPUTY SECRETARY PONEMAN: Okay.  
12 Thank you.

13 CHAIR DEMING: Dan will stay up  
14 here, as agreed generously, to field a few  
15 questions. And while you're trying to thank  
16 of some and formulate some, let me kick it  
17 off.

18 Dan, the next ten years the  
19 perspective of the Department of Energy on  
20 natural gas, the role that it might play in  
21 achieving the goals of the Secretary, in  
22 particular?

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1 DEPUTY SECRETARY PONEMAN: Well,  
2 it's fascinating. You know, I guess I think  
3 of this in a couple of ways.

4 First, to a first order, in power  
5 generation as compared to coal, you  
6 immediately cut your greenhouse gas emissions  
7 in half. So, I mean, that's a great start  
8 right there; point one.

9 Point two: I was just out, oh I  
10 guess a couple of months ago, in Oregon  
11 visiting some of the projects we're doing  
12 under Recovery Act, actually, at Bonneville  
13 Power Administration and talking to a very  
14 thoughtful leader we've got out there, Steve  
15 Wright, about the challenges he faces in the  
16 integration of wind, of which they've got a  
17 lot, into the grid and load balancing  
18 requirements that are involved and the tariff  
19 issues that are involved. And really in the  
20 way I think we think about it, if you want to,  
21 and we're committed to meet our objective of  
22 doubling the introduction of renewables, you

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1 need to have that load balancing and gas is  
2 the obvious answer there. So that's the  
3 second piece.

4 The third piece I would just note  
5 is because providence has been a little bit  
6 more generous in the distribution of the  
7 resource around the world with the shale gas  
8 resources than with petroleum resources, I  
9 think that it actually has a very interesting  
10 and positive affect on national security in  
11 reducing the exposure of people who were  
12 perhaps, or I should say governments, overly  
13 dependent on certain sources of energy and  
14 allowed them to have at least a possibility  
15 and prospect. I know a lot of the resources  
16 in some of these places have not yet been  
17 fully characterized, but I think we already  
18 know enough to know that the stranglehold that  
19 some nations have held over other nations and  
20 their energy future, I think will be slackened  
21 by the development of these shale gas  
22 resources.

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1 CHAIR DEMING: Any other?

2 DEPUTY SECRETARY PONEMAN: I would  
3 not thought this to be a shy group.

4 MR. JULANDER: If you have  
5 distribution of natural gas around the world  
6 and its potential benefits, can't dump into  
7 fruition without the technology being there to  
8 transfer of our geological and engineering  
9 technology, and it's a sensitive process  
10 developing unconditional gas resources? What  
11 thoughts do you have about how we can transfer  
12 what we have around the world and get it out  
13 there and reap the benefits of it?

14 DEPUTY SECRETARY PONEMAN: Well, I  
15 think of this in a couple of tranches. It may  
16 be not so much for the people in this room,  
17 but in terms of government-to-government  
18 relations it's still relatively early days.

19 We need to establish, I think,  
20 some important government-to-government  
21 relationships to provide a chapeau under which  
22 then the commercial cooperation on the actual

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1 development and exploration and exploitation  
2 can occur.

3           You know, people around here have  
4 had deep insertion in many of the countries,  
5 if not all of them, that have potential  
6 resources. They can and they should be  
7 engaged with their partners both on the  
8 government and private sector side in these  
9 countries. But at the same time I can tell  
10 you for example, and this is something that  
11 Mike Forman and I have worked on, when we have  
12 our energy dialogues with very significant  
13 players, our counterparts in India, our  
14 counterparts in China, this is always part of  
15 the discussion in setting sort of the rules of  
16 the road, the expectations, the regulatory  
17 format; that's something that probably falls  
18 to government. And one thing that's not unique  
19 to natural gas but I think is also important  
20 here is that in doing so that we establish a  
21 baseline in terms of respect for the sanctity  
22 of contracts and transparency so that when we

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1 do move into this area, that we benefit from  
2 the kind of economic level playing field that  
3 is the one in which American companies most  
4 flourish.

5 CHAIR DEMING: Any other questions  
6 of Dan? Yes, sir? Could you identify yourself  
7 as well, please.

8 AUDIENCE MEMBER: -- I have a  
9 question about infrastructure, and that is  
10 we're shifting in this mode to renewable,  
11 we're changing the way we dispatch gas  
12 presumably to cover the electrical grid. How  
13 do we streamline the process? Because in this  
14 instance just in timed delivery of the  
15 infrastructure alone is going to take  
16 potentially a decade if we don't clear the  
17 path for new transmission line, new gas  
18 pipelines, repair the existing infrastructure.  
19 We just saw what happened in San Bruno with  
20 regard to that pipeline. And certainly the  
21 need to get into areas that may be sensitive  
22 and have environmental requirements need to be

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1 cleared. Because if you're going to build  
2 this system, you're going to have to do it a  
3 timely manner or we'll be exactly too late  
4 with the systems that we need to deliver  
5 whatever new energy mix we have to deliver.

6 DEPUTY SECRETARY PONEMAN: Yes.  
7 Well, I wish I had an easy answer for you, but  
8 I don't. This is tough. Siting is  
9 extraordinarily difficult and challenging. It  
10 was a big problem before we came to the  
11 Department. It was one of the first we  
12 discovered. And my hunch is, it's going to be  
13 with us for some period of time.

14 We have entered into a dialogue  
15 with FERC and Council On Economic Equality,  
16 and we're trying to find ways in which we need  
17 to move more swiftly. We know we need to  
18 build that smarter grid in order to optimize  
19 in this respect. And it's something to which  
20 local communities and the United States  
21 Congress is not indifferent, and therefore  
22 however smart of set of options we come up,

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1 it's something we're going to have to work  
2 through those communities as well.

3 All I can say is we are working it  
4 and the hope is with greater understanding of  
5 the tremendous opportunity that's available  
6 through the deployment of a smarter grid in  
7 order to achieve the widespread deployment of  
8 renewable energy resources, there's enough of  
9 a brass ring out there to motivate it. But  
10 I've been in Washington long enough not to be  
11 under illusions that it's going to be easy.

12 So, it's not a glib answer I'm  
13 giving, but I think it's accurate. And we're  
14 going just have to put our shoulder to the  
15 wheel and keep working it.

16 CHAIR DEMING: Thank you very  
17 much, Dan.

18 DEPUTY SECRETARY PONEMAN: Okay.

19 (Applause.)

20 CHAIR DEMING: Again thanks, Dan,  
21 very much for your insightful remarks.

22 Next we will hear from the

1 Honorable Michael Froman, Deputy Assistant to  
2 the President and Deputy National Security  
3 Advisor for International Economic Affairs.

4 This is a unique position held  
5 jointly at the National Security Council and  
6 the National Economic Council.

7 Mike's responsibilities include  
8 serving as the White House liaison to the G-7,  
9 G-8 and G-20 Economic Summits.

10 Most recently, he was Managing  
11 Director of Citigroup's Alternative Investments  
12 Institutional Clients Group.

13 Please join me in welcoming Mike  
14 Froman.

15 MR. FROMAN: Thanks, Claiborne.

16 Let me say a few words about our  
17 overall economic strategy and how energy  
18 security fits into it.

19 As you all recall when President  
20 Obama took office, his number one priority was  
21 to try and deal with the dangerous downward  
22 economic spiral that the country was facing at

1 that time, that the world was facing at that  
2 time, and to try and prevent a great recession  
3 from turning into the second Great Depression.  
4 And that was done through a series of bold  
5 actions by the Federal Government in  
6 conjunction with major economies around the  
7 world.

8 Now the economy is growing, though  
9 not fast enough. For the last eight months  
10 the private sector has created new jobs,  
11 though not enough. Financial markets are  
12 stabilized, the financial sector is relatively  
13 healthy and we've adopted a new regulatory  
14 framework here and around to the world to try  
15 to prevent financial crises of this sort from  
16 occurring in the future.

17 We've got a lot still to do. We  
18 need to put the country's finances in order,  
19 and health care reform was part of that. But  
20 further steps are certainly necessary.

21 We need to increase our  
22 competitiveness, and we need to expand our

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1 exports.

2 For a long time the international  
3 community could rely on the fact that the U.S.  
4 would do whatever was necessary to maintain a  
5 benign and growing international economic  
6 environment. The U.S. was the consumer of  
7 last resort. We provided a security umbrella.  
8 And our markets, which are among the most open  
9 in the world, allowed the emerging economies  
10 the space and opportunity to grow and prosper.  
11 Their success is very much in all of our  
12 interests, but that doesn't mean that we  
13 shouldn't compete.

14 Earlier this year, the President  
15 laid out the goal of doubling exports over the  
16 next five years to support millions of high  
17 paying jobs here in the U.S., and we're well  
18 on our way towards that goal. Six months into  
19 it we've seen an 18 percent increase in  
20 exports, about 22 percent increase in  
21 manufactured exports. But we need to do a lot  
22 more both to open markets abroad and to

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1 enforce our current trade rights.

2 But to be competitive we need to  
3 do more than that. We need to better on  
4 innovation, education and energy. And I'm  
5 reluctant to say anything about energy in this  
6 group since you all know infinitely more about  
7 it than I do, and all that I know is what  
8 Dan's taught me.

9 The agenda is certainly a full  
10 one:

11 We need to take advantage of the  
12 opportunity by the lower cost of shale gas  
13 production in the U.S. and around the world;

14 We need to crack the code and be  
15 globally competitive on renewables;

16 We need to recognize that nuclear  
17 power is part of our future, and;

18 We need to expand opportunities  
19 for the production of fossil fuels and build  
20 out whatever possibilities exist for clean  
21 coal.

22 As one of my several bosses has

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1 said, this is an area where we need to get  
2 beyond the debate about either/or and move  
3 towards both/and. We can't afford to debate  
4 whether we should have nuclear energy or  
5 renewables, whether we should find ways of  
6 reducing emissions on fossil fuels or focus on  
7 energy efficiency. The right answer is that  
8 we have to do all of this.

9 Now one of my responsibilities, as  
10 Claiborne said, is to help the President  
11 manage the G-20. In declaring the G-20 the  
12 premier forum for international economic  
13 cooperation, the President and his  
14 counterparts recognized that the challenges  
15 the world currently faces cannot be solved  
16 without having countries like China, India,  
17 Brazil, South Africa and Indonesia. They need  
18 to have a voice at the table, but they also  
19 need to take on global responsibilities  
20 commiserate with their position in the global  
21 economy.

22 The fact is that policy hasn't

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1 always kept pace with the evolving realities  
2 of the international environment. The China,  
3 India and Brazil of today are not the same  
4 countries that they were just a decade ago.

5 Take climate change. China is now  
6 the number one emitter of greenhouse gases.  
7 And between now and 2020, China and India's  
8 energy related CO<sub>2</sub> emissions will grow three  
9 to five times as fast as those of the U.S.  
10 It's impossible to fathom a solution to  
11 climate change that does not include  
12 commitments by all the major economies,  
13 including the emersion economies. That's the  
14 message that we took to the Major Economies  
15 Forum and to Copenhagen. And that's why the  
16 Copenhagen Accord, as imperfect as it is, is  
17 so significant. Because it moves towards a  
18 new paradigm in which all significant  
19 emitters, developed and emerging, are expected  
20 to act transparently to reduce emissions while  
21 simultaneously providing landmark funding for  
22 developing countries.

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1           Let me say a word about fossil  
2 fuel subsidies and the G-20 efforts in that  
3 area.     Although the magnitude of areas  
4 depending on market conditions, the total cost  
5 of fossil fuel subsidies exceeds \$300 billion  
6 in each of the last three years.   The OECD  
7 estimates that if fossil fuel subsidies were  
8 eliminated by 2020, it would reduce greenhouse  
9 emissions by ten percent by 2050, a  
10 significant down payment on the 50/50 goal.

11           Eliminating fossil fuel subsidies  
12 may be the most significant step we take  
13 toward reducing greenhouse gases.   And that's  
14 why the G-20 embraced that as a medium term  
15 goal.   It's good economics, it's good energy  
16 policy and it's good climate change policy.  
17 Now I imagine not everybody here welcomes this  
18 initiative.   We have our own subsidies.   But  
19 in the world of fiscal constraints in the  
20 context of our interest in removing  
21 distortions from global energy markets and  
22 addressing climate change, it's an important

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1 first steps.

2           And it's still early in this  
3 effort. We expect to pursue this over years,  
4 not months. But we're already seeing some  
5 important progress, particularly in certain  
6 emerging economies where the G-20 commitment  
7 has helped them spur on their own reform  
8 efforts. Whether it's China beginning to  
9 raise oil, gas and electricity prices,  
10 Indonesia transitioning blanket subsidies  
11 towards targeted vouchers, India to regulating  
12 gasoline prices and reducing diesel subsidies,  
13 or Mexico taking steps to reform its petroleum  
14 product subsidies each of these are steps in  
15 the right direction.

16           Now this is part of large G-20  
17 effort to try to bring greater transparency to  
18 energy markets by encouraging countries to  
19 publish more complete, better data on a more  
20 frequent basis, which is in the interests of  
21 making our managing markets work better the  
22 world.

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1                   Finally, let me just say a final  
2 word about energy policy more generally. As  
3 Dan said, the President and this  
4 Administration is committed to cleaner energy  
5 future. We put more than \$80 billion of the  
6 Recovery Act into energy efficiency,  
7 renewables, advanced batteries, transit and  
8 the high speed rail, clean coal investments.  
9 And we're working to support clean energy  
10 development here and around the world, and  
11 we're determined to compete in the clean  
12 energy sector. So that, and the President has  
13 called for comprehensive energy and climate  
14 legislation that, among others, would put a  
15 price on carbon. And while the House passed  
16 a bill consistent with that vision, the Senate  
17 as you all know has not.

18                   A comprehensive legislative  
19 approach would be the most effective way to  
20 deal with these challenges, and we will  
21 continue to push for that. But until we  
22 secure that outcome, we use our other

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1 authorities to try and make progress. And  
2 that means building on:

3 The fuel economy emissions  
4 tailpipe standards for cars and light trucks;  
5 Appliance efficiency standards,  
6 and;

7 Streamlining the way that the  
8 Government itself does business to create more  
9 rapid renewables development.

10 All of that said, we fully  
11 understand the large role oil and other fossil  
12 fuels are likely to play in our economy and  
13 the global economy for the foreseeable future,  
14 and for that reason reliable supplies of oil  
15 and gas at reasonable costs are critical to  
16 our economic recovery and our energy security.  
17 Your company's efforts in that regard are very  
18 important.

19 Let me just close by thanking you  
20 for all the work that you do. The studies  
21 that you're working on are critically  
22 important to our efforts, and we appreciate

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1 it.

2 Thank you.

3 (Applause.)

4 CHAIR DEMING: Mike has agreed to  
5 take some questions, and I think I'll exercise  
6 my prerogative as Chair to ask the first one.

7 Mike, put on your national  
8 security hat. Think about economic threats  
9 and all through the prism of China, and give  
10 us your thoughts about market, the threats to  
11 the U.S., perhaps the opportunities to the  
12 U.S. and how the Administration thinks about  
13 it.

14 MR. FROMAN: Sure. Well, we have  
15 a deep and broad relationship, obviously, with  
16 China across a whole range of issues. And we  
17 are engaged in an ongoing process of figuring  
18 out how best to work with each other on our  
19 bilateral issues and on global issues.

20 We certainly see that it's hard to  
21 imagine a future in which the U.S. and China  
22 both don't prosper. And we both need to find

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1 ways as we each pursue our economic objectives  
2 of doing so that takes into account the core  
3 interests of each other.

4 It is certainly in our interest  
5 that China continues to grow, and grow  
6 rapidly. That they shift towards greater  
7 domestic demand, and that's been a key part of  
8 the G-20 agenda towards rebalancing growth.

9 We want to take steps to help open  
10 China's markets and deal with policies that  
11 they have that keep out U.S. products or make  
12 life difficult for U.S. investors.

13 And we want to find areas of  
14 cooperation around the world where we can work  
15 together to solve local problems, whether  
16 that's trade or climate change, or otherwise.

17 I think we are following with  
18 great interest their energy policies, both  
19 domestically and around the world. Don't  
20 necessarily see them as a threat, their  
21 investments in bringing resources onto the  
22 market that might not otherwise be brought

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1 onto the market. But I think it bears close  
2 watching to see how we develop an energy  
3 security future that works for all of us.

4 CHAIR DEMING: Any question of  
5 Mike?

6 MR. JULANDER: There are some of  
7 us and some environmental scientists who  
8 believe that the only way to achieve the 50-  
9 by-50 goal without destroying economies and  
10 while letting emerging economies emerge is to  
11 substitute natural gas for higher carbon fuels  
12 fairly quickly, as quickly as possible around  
13 the world. In other words, natural gas may be  
14 the only answer, only realistic answer to  
15 climate change. That's a very simplistic  
16 statement to a complicated problem. But it's  
17 something out there that needs to be  
18 considered and hasn't received significant  
19 consideration yet, as far as I can tell.

20 Do you have any comment on natural  
21 gas as an answer to climate change?

22 MR. FROMAN: Well, I would only

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1 add to what Dan said earlier, which is that  
2 certainly natural gas is going to play a very  
3 important part in a clean energy future as a  
4 substitute for coal, and more generally. And  
5 it's one of the issues, as I said, it's not an  
6 either/or, it's both/and. That, together with  
7 nuclear, together with efficiency, together  
8 with other renewables, together clean coal all  
9 have to be part of the equation. And the  
10 work, again, that you're doing on natural gas  
11 is part of that.

12 MR. JULANDER: Time limits and  
13 scale are major considerations. The art of  
14 what we know how to do now most of, seems to  
15 point towards natural gas as the only  
16 realistic solution toward that outcome.

17 MR. FROMAN: Thank you.

18 CHAIR DEMING: Mike, thank you  
19 very much.

20 (Applause.)

21 CHAIR DEMING: Dan and Mike,  
22 appreciate very much your remarks.

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1           And joining us at the head table  
2           is Matt Rogers. You've heard his name  
3           mentioned before. He is Senior Advisor to the  
4           Secretary of Energy and leader of the  
5           Department's Recovery Act activities.

6           As you will recall at our meeting  
7           in September of last year, the Council voted  
8           unanimously to accept Secretary Chu's request  
9           for advice in two areas.       Future of  
10          transportation fuels and a prudent development  
11          of North American natural gas and oil  
12          resources.

13          As provided in the Council's  
14          Articles of Organization and with the  
15          concurrence of our Appointments Committee and  
16          the approval of the Secretary, I have  
17          established and appointed the members of the  
18          two study committees.

19          A considerable amount of effort  
20          has gone into developing study plans and we  
21          met last night after the reception, and they  
22          are complex subjects, and staffing of the

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1 groups necessary to complete this work in a  
2 timely manner. And at this point in our  
3 meeting we're going to have updates on our two  
4 plans.

5 And we'd like to start off with  
6 Clarence Cazalot who Chairs the Committee on  
7 Future Transportation Fuels who will review  
8 progress today on that study.

9 MR. CAZALOT: Thank you,  
10 Claiborne. And good morning, ladies and  
11 gentlemen.

12 Let me say on behalf of the 225  
13 professionals that are currently engaged in  
14 the progress, we are pleased to give you an  
15 update on where we are in the Future  
16 Transportation Fuel Study this morning.

17 I think that you're going to see  
18 in just a moment that this is perhaps one of  
19 the most complex, multifaceted studies I think  
20 NPC has ever undertaken. But I also think  
21 it's perhaps one of the most important studies  
22 we've done. But I think as Secretary Poneman

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1 had just said, you know our nation's economic  
2 well-being and competitiveness depends on  
3 having efficient, affordable transportation of  
4 people, materials and finished products. And  
5 also as you're going to see, the study is  
6 being conducted within the prism of three key  
7 factors: The economy, the environment and  
8 energy security.

9 Now, because of its broad nature  
10 and complexity, the study is requiring a  
11 significant commitment of time and effort, and  
12 we've assembled many outstanding people from  
13 industry, Government and academia. And again  
14 going back to a comment earlier, I think it  
15 really is a great partnership of many diverse  
16 groups and we're seeing a great deal of  
17 collaboration in the process. But again,  
18 given all the hard work, the time and effort  
19 that's going into this, our clear intent is  
20 that the final product be viewed as credible  
21 and comprehensive, and really represents a  
22 solid basis to formulate future energy policy

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1 and plans.

2 And so with that, I'm going to  
3 introduce the Chair of the Coordinating  
4 Subcommittee Linda Capuano. In her full time  
5 job, Linda is Vice President of Emerging  
6 Technology for Marathon, but I'd say her full  
7 time job now has been the study, like everyone  
8 else. I think what all of you need to  
9 appreciate is a lot of effort going into it,  
10 but the people that are engaged, over 200  
11 right now, have other jobs they're doing. So  
12 we're very appreciative to all of you for  
13 having brought forward some of your top people  
14 to participate in this study.

15 Linda?

16 MS. CAPUANO: Thank you, Clarence.

17 I'll begin by going through the  
18 request from Secretary Chu in detail.

19 It is requested that we study  
20 future transportation fuel prospects through  
21 2035 and 2050 for auto, truck, air, rail, and  
22 waterborne transportation. So a very broad

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1 spectrum of vehicles, and to also address the  
2 fuel demand, the supply and infrastructure,  
3 and the technology. So this is quite an  
4 extensive study.

5 He would also like us to advise  
6 him on policy options and pathways for  
7 integrating the new fuels and vehicles into  
8 the marketplace including infrastructure  
9 developments. And to address a transition to  
10 an extended suite of reliable, secure, and  
11 clean low-carbon transportation fuels to  
12 evaluate options, risks and consequences.

13 Consider the technological  
14 advances, energy efficiency, environment  
15 includes emissions, land and water use, cost  
16 benefit trade-offs, manufacture, distribution  
17 and infrastructure, and customer expectation  
18 and acceptance on the economic competitiveness  
19 and market dynamics.

20 In April of this year he gave us  
21 some more specific instruction, not changing  
22 the overall objective but clarifying one

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1 aspect of it in asking us to address a  
2 specific question, which is what actions could  
3 government and industry take to stimulate the  
4 technological advances in market conditions to  
5 reduce life cycle greenhouse gas emissions in  
6 U.S. transportation sector by 50 percent by  
7 2050. So we accepted that challenge.

8 At the beginning of the study,  
9 both this study and the Resources Study, we  
10 met with the Hard Truths Chairs to get  
11 guidance as to how to approach the study. And  
12 from that meeting, which included both the  
13 Anadarko team and the Marathon team, and we  
14 listened and we came forward with some guiding  
15 principles that we operate under. And I'm  
16 speaking both for both studies at this point.

17 We heard them tell us that we  
18 needed to develop a detailed scope of work for  
19 each task group before commencing the work, so  
20 scope then execute. Diversity of thought and  
21 involving a diverse set of participants was  
22 critical to maximizing both the input and,

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1       thus, the credibility of the study, and the  
2       acceptance of the findings of the study.

3               We also heard that promoting  
4       consensus-based leadership was important. Now  
5       consensus-based leadership is not unanimous  
6       agreement. It is consensus. And we go by an  
7       80/20 rule; if we get to 80 percent agreement,  
8       we move forward and we can accommodate  
9       minority opinions. So this is very open and  
10      debative process, and we don't shy away from  
11      any conflicts.

12             We also want to maximize the use  
13      of prior studies. We want to provide a broad  
14      view of current research and only conduct new  
15      studies where necessary in order to be the  
16      most efficient and effective in approaching  
17      this in the time allotted.

18             We also need to clarify our  
19      assumptions. Since we're going to base quite  
20      a bit of our data on other studies, we need to  
21      clarify what assumptions were made in those  
22      studies so that people understand the

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1 foundation for our opinions.

2 We also were guided to examine  
3 facts and then address policy so that once we  
4 had the analytical foundation, we could then  
5 talk about the nuances of how policy could  
6 effect the pathways. And again, the three  
7 lenses which we keep in front of us: It's  
8 environment, economic and energy security.

9 We also will be communicating in  
10 outreach throughout the study so that we can  
11 bring in and broaden the debate and  
12 communicate our findings as we come to them  
13 and to be able to get feedback, and so we can  
14 adjust based upon new data that we might be  
15 able to obtain. And we will also coordinate  
16 with the NPC Resource Study since each study  
17 depends on the other for certain inputs.

18 And so the deliverable, the scope  
19 of the study, we will deliver a report to the  
20 Secretary of Energy on the future  
21 transportation fuel prospects through 2035-  
22 2050.

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1           We will address fuel demand  
2 supply, infrastructure and technology in the  
3 context of the U.S. objectives for protecting  
4 the environment, promoting economic growth and  
5 competitiveness and energy security. And we  
6 will do this based on describing accelerated  
7 technology pathways to improve fuel efficiency,  
8 reduce environment impact and deployment of  
9 alternative fuels at scale. So this is  
10 commercial volumes.

11           We will also deliver insights into  
12 potential energy policy options and  
13 investments which industry and government can  
14 take to accelerate the pathways. And we will  
15 focus on describing actions industry,  
16 government can take to stimulate the advances  
17 needed to get to the 50/50 goal.

18           The structure of the study were  
19 led by the Committee. The Coordinating  
20 Subcommittee coordinates the Demand Task  
21 Group, the Supply and Infrastructure Task  
22 Group and the Technology Task Group.

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1           Now in entering this study since  
2 we're addressing both environmental and  
3 economics, we raised the level of this to look  
4 at mobility nationally. So it includes  
5 freight and passengers. So while passenger  
6 vehicles may provide the bulk of the  
7 emissions, the freight really has a large  
8 impact on economics. And so as you see,  
9 moving into the membership, we are beginning  
10 to see the very diverse group.

11           The Study Committee is Chaired by  
12 Clarence Cazalot. And I lead the Coordinating  
13 Subcommittee. We're supported by Dan Poneman  
14 and Kristina Johnson as the Co-Chairs of the  
15 Study Committee with Steve Koonin and Dave  
16 Sandalow supporting in the Coordinating  
17 Subcommittee.

18           Jim Owens from Caterpillar is Vice  
19 Chair of the Demand area and Deanne Short is  
20 the Chair of the Demand Task Group.

21           Sorry. I'm just having trouble  
22 seeing this.

1                   John Watson Chairs the Supply and  
2                   Infrastructure Task Group.

3                   And Shariq Yosufzai is the head of  
4                   the Demand Task Group.

5                   And John Deutsche is the  
6                   Technology Vice Chair. And Stephen Brand  
7                   Chairs the Technology Task Group.

8                   You'll see that we have members of  
9                   FedEx. FedEx, Westport Cummins, Walmart and  
10                  General Motors. And that we have NRDC and the  
11                  Resources for the Futures in the Coordinating  
12                  Subcommittee.

13                  Excuse me for a second. I have to  
14                  move over to my notes.

15                  And then in the Demand Task Group  
16                  as we approach mobility, we will be evaluating  
17                  the demand forecasts and assumptions of  
18                  passenger and freight mobility through 2035  
19                  and 2050.

20                  We'll be estimating travel  
21                  activity, and the fuel and vehicle mix and  
22                  providing insight on policy options. We'll

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1 also be providing the fuel mix of the vehicle  
2 systems given performance and cost  
3 characteristics.

4 In the Supply and Infrastructure  
5 Task Group, which is Chaired by Shariq  
6 Yosufzai of Chevron, we'll be evaluating  
7 supply forecasts, assessing technology and  
8 technology investments, analyzing the  
9 infrastructure requirements for the fuel types  
10 and volumes, describing technology pathways,  
11 assessing environmental impacts, energy  
12 security and economic competitiveness, and  
13 analyzing various supply situations.

14 The Technology Task Group which is  
15 being Chaired by Stephen Brand will be  
16 supporting the Supply and Infrastructure Task  
17 Group. What they will provide is a  
18 standardization of the analysis across the  
19 different vehicle supply chains to standardize  
20 the innovative assumptions. They'll also  
21 conduct peer reviews to test the technology  
22 accelerators that we think will be needed for

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1 advancement. And they will provide subject  
2 matter experts where necessary.

3 They will also analyze the key  
4 premises and evaluate the innovative  
5 development suggestions with respect to  
6 technical performance and costs, and schedule  
7 and emissions.

8 And they will identify and  
9 evaluate disruptive technology. And they're  
10 already beginning to review what is available  
11 from the National Laboratories and ARPA-E in  
12 trying to give us inputs and data into what we  
13 can do to accelerate the supply chains.

14 The subgroups are organized around  
15 the different fuel and vehicle supply chains.  
16 The biofuel and hydrocarbon groups will be  
17 looking at the accelerated paths to supplying,  
18 processing, distribution and infrastructure  
19 technology requirements for those fuels. And  
20 those will input to the Engine and Vehicle  
21 Subgroup, which is looking at how the internal  
22 combustion engine and other features of the

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1 current technology can be improved in order to  
2 give us better emissions and economic  
3 profiles.

4 The Natural Gas, Hydrogen,  
5 Electric Subgroups are looking at both the  
6 fuel supply chains and the vehicle and engine  
7 mixes.

8 These particular groups, the  
9 National Gas, the Electric Groups and the  
10 Hydrogen Groups will be getting inputs from  
11 the Resources Team in terms of the  
12 characteristics of the fuel that will be  
13 available in 2050. So we'll get the emission  
14 characteristics and the land and water use  
15 characteristics as necessary from the  
16 Resources Team.

17 And then we have two additional  
18 Support Subgroups on Vehicle Characteristics  
19 to help us harmonize across the groups in  
20 terms of the nomenclature and the  
21 characteristics that we're comparing. And in  
22 Carbons Emissions and Greenhouse Gases so that

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1 we're uniform in how we apply that data.

2           If we look at the mix, as Clarence  
3 said, we're at 224 participants at this point  
4 in time. You'll notice that the oil and gas  
5 industry only constitutes 31 percent.

6           We have major participation in  
7 transport manufactures and end users. For  
8 example, United Air Lines, GE Aviation,  
9 Boeing, Association for American Railroads,  
10 American Trucking Association, Air Transport  
11 Association are all participants. We also  
12 have Walmart, FedEx, UPS. We have Honda,  
13 Volkswagen, Toyota, General Motors, Air  
14 Products, Chrysler, Electric Power Research  
15 Institute, Southern California Edison. So we  
16 have quite a broad group, and we're adding  
17 more. If you would like to participate,  
18 please get in touch with us.

19           We will be expanding this group to  
20 500 or more because we do need the feedback.  
21 Right now we are developing this baseline case  
22 and we are beginning to develop the findings.

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1 And as we start to develop those, we would  
2 like to communicate and get feedback.

3 Where we are in the study right  
4 now is that we've completed the staffing and  
5 we are now moving into the baseline and the  
6 acceleration analysis. And so the Supply and  
7 Infrastructure Team with the Technology Teams  
8 are working on those baseline supply chains  
9 and accelerations. And the Demand Group is  
10 looking at the tools for the forecasting and  
11 for the analyses.

12 As we move forward into January,  
13 we'll begin to integrate across the supply  
14 chains. One of the characteristics of this  
15 study is as we look at what supply chain can  
16 do independently, we then will look at the  
17 impact of each on the other. So come January  
18 we'll start to see as the innovations are hit,  
19 let's say in electric vehicles, how doe that  
20 impact what's going on in natural gas or how  
21 does that impact what's going on in biofuels.  
22 And so the integration part of this study that

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1 begins at the beginning of next year is going  
2 to be a very interesting part. And with the  
3 number of industry members who understand what  
4 happens with first movers of technology, we  
5 should be coming up with some interesting  
6 findings.

7 Then we move in towards the middle  
8 of next year, the drafting of the report.

9 And, as you'll see at the bottom  
10 timeline, we're doing communicate outreach  
11 throughout this.

12 You'll note the stars on the top,  
13 the Coordinating Subcommittee meets  
14 approximately monthly.

15 The report writing will start in  
16 late spring of next year.

17 And the two stars in the middle  
18 shows where we will be integrating with  
19 Resources Team in December and January and  
20 passing on the information that we have  
21 accrued up to that point so they can use in  
22 their study. And we'll be getting feedback

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1 from them.

2 And so at the Coordinating  
3 Subcommittee level, Clay Bretches and I talk  
4 weekly. And our Chairs of our different  
5 subgroups are talking as needed in order to  
6 make sure that the data is being shared.

7 And then I will Clay in his  
8 presentation talk about our outreach and  
9 communication, and more of the details of  
10 integration after he goes through the basics  
11 of his study.

12 And with that, I'll turn it over.

13 MR. CAZALOT: Let me say that our  
14 Technology Vice Chair John Deutsche has sort  
15 of characterized this study as a simultaneous  
16 pursuit of eight different Ph.D.  
17 dissertations. It is really complex, as you  
18 can see. But I can't, frankly, think of a  
19 better way to deal with this very important  
20 issue than what we've got here where really we  
21 have brought a great number of absolutely the  
22 right people to the table. And we appreciate

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1 the commitment of all those involved.

2 I will say the group has sort of  
3 had the easy part, not that staffing and data  
4 gathering and all this was easy. But,  
5 frankly, as they begin to now gel and begin to  
6 come to some general conclusions and findings  
7 and trends, that's where we're going to begin  
8 to get into perhaps real differences of  
9 opinions. But again, I think as Linda has  
10 said, we sort of value that conflict, that  
11 constructive dialogue because that's how we'll  
12 get to the right answers.

13 So it is still early days. We  
14 will continue to need the staff. I think  
15 we've got the bulk of the people we need, but  
16 we may be calling on many of you to bring some  
17 key expertise we need in certain areas to  
18 bring it to conclusion.

19 So, at this point I would open it  
20 up, Mr. Chairman, to any questions from NPC  
21 members that you may have.

22 CHAIR DEMING: Yes, sir.

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1 MR. PATRINOS: My name is Arisides  
2 Patrinos, the President of a company called  
3 Synthetic Genomics.

4 I was also privileged to be a part  
5 of the National Academy of Sciences Committee  
6 on American Energy Future that toiled for 2½  
7 years and delivered a fairly comprehensive  
8 report last year. A large part of it was  
9 actually focused on alternative liquid  
10 transportation fuels.

11 So, I would like to know what is  
12 different from the study that we delivered  
13 last year with what you're pursuing here?

14 MR. CAZALOT: Linda?

15 MS. CAPUANO: Okay. Well, we did  
16 have a briefing on that particular study to  
17 give us a basis for our information.

18 I think that I will say that  
19 that's a foundation that we'll be extending  
20 from. I wouldn't call it different, I would  
21 say that we're using that as a platform to go  
22 beyond it.

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1 MR. CAZALOT: Yes. Remember one of  
2 the principles we had was to not reinvent the  
3 wheel. To the extent that there is existing  
4 studies, reports, findings out there that we  
5 believe are valid, that becomes something to  
6 build off of. But certainly would appreciate  
7 your direct engagement with the team to make  
8 sure that's factored in.

9 CHAIR DEMING: Clarence, thank you  
10 very much.

11 And, Linda, thank you very much.

12 As this is a progress report, no  
13 Council action is required.

14 Clarence, thanks again. It's a  
15 window into the work this Committee is doing,  
16 basically a look at reformatting U.S. future  
17 transportation fuels, which is an awesome  
18 task.

19 The next report is the Committee  
20 on Resource Development. Jim Hackett Chairs  
21 that and he will give us a report on the  
22 progress of that group.

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1 Jim?

2 MR. HACKETT: Thanks, Claiborne.

3 I might try to win back a few  
4 minutes here by not going through a few first  
5 slides, because I notice in your packets  
6 you've got the two letters from Secretary Chu  
7 from September 16th of 2009 as well as the  
8 follow-up from April 30th of 2010. There was  
9 also a separate meeting between them that gave  
10 us some additional guidance.

11 And I just want to thank everybody  
12 in the room that has been a part of this and  
13 has committed themselves to be part of this  
14 very important work.

15 What I am going to do is turn it  
16 quickly over to Clay Bretches, who is managing  
17 the Coordinating Subcommittee.

18 This integrated study plan has  
19 been accepted by the Study Committee, and  
20 we're very pleased with that.

21 And Clay, if you could give us a  
22 summary of what your group is doing, we would

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1 appreciate it. Thank you.

2 MR. BRETCHES: Good morning, and  
3 thank you, Jim.

4 And it's my pleasure to present  
5 the summarized integrated study plan to the  
6 Council, the Department of Energy  
7 representatives, and the guests of the Council  
8 this morning.

9 I would like to, before I get  
10 started, thank the special help that we've  
11 received from the Department of Energy,  
12 particularly Assistant Secretary Markowsky and  
13 Deputy Assistant Secretary Smith who have  
14 provided a great number of resources for the  
15 study.

16 I will start by saying that the  
17 study is well underway and progressing nicely.  
18 And I will spend the next few minutes  
19 describing our objectives, our deliverables,  
20 organizational structure, timing, integration  
21 between the studies which Linda just touched  
22 on, and then touch on communications and

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1 outreach efforts.

2 Starting off with the high level  
3 objectives. The study teams will focus on  
4 identifying oil and gas supply, both  
5 conventional and unconventional as well as oil  
6 and gas demand which we assess through 2035  
7 with views through 2050.

8 We will explaining the role of  
9 technology in making North American resources  
10 producible. We'll identify how the increased  
11 use of natural gas could result in lower  
12 greenhouse gas emissions in all sectors of the  
13 economy, including power generation and  
14 transportation.

15 We'll be describing the operating  
16 practices in the industry and the technologies  
17 that will minimize impacts on the environment.  
18 And finally, the output from these multiple  
19 efforts will underpin recommended supply and  
20 demand strategies to form the basis of policy  
21 recommendations for the Secretary of Energy  
22 with the objectives of protecting the

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1 environment, sustaining economic growth and  
2 competitiveness and promoting energy security.

3 In line with the objectives of the  
4 study, a full report will be developed for the  
5 Secretary of Energy with recommendations for  
6 prudent development of North America's gas  
7 resources. They'll reflect the Government's  
8 objectives to include a description of  
9 resources used, participants, findings and, of  
10 course, conclusions.

11 I should point out that the study  
12 will be a study of studies. It will not be  
13 original work and it will not be grassroots  
14 modeling. We will use existing projections  
15 that are appropriate for the subject matter,  
16 we will identify underlying assumptions,  
17 understand why they differ and thereby  
18 identify important factors governing the  
19 future of oil and gas demand and supply.

20 Our guiding principles will be the  
21 same as those listed by Linda in her  
22 discussion, so I will not repeat them. But

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1 I will reemphasize that we will not develop  
2 policy recommendations, nor will we delve into  
3 policy issues until all the facts are on the  
4 table.

5 The structure of the Resources  
6 Study will be compromised of the Study  
7 Committee, a Coordinating Subcommittee and  
8 three major task groups. The three major task  
9 groups being: Resource and Supply, Operations  
10 in the Environment and Demand.

11 The Executive Committee led by Jim  
12 Hackett will include:

13 Dan Poneman, the Deputy Secretary  
14 of Energy;

15 Marvin Odum, the President of  
16 Shell Oil Company;

17 Dan Yergin, the Chairman of IHS  
18 Cambridge Energy;

19 Aubrey McClendon, Chairman and CEO  
20 of Chesapeake Energy;

21 Phil Sharp, President of Resources  
22 for the Future, and;

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1 Marshall Nichols, Executive  
2 Director of the National Petroleum Council.

3 The Coordinating Subcommittee led  
4 by myself is composed of 40 individuals to  
5 include the task group leaders for Supply,  
6 Demand and Operations in the Environment.

7 In addition to the Coordinating  
8 Subcommittee, we have seven subgroups  
9 necessary to accomplish the objectives of the  
10 study. The principal areas of focus for the  
11 subcommittees are: Antitrust, communication  
12 and outreach, report writing, integration both  
13 inter-study and intra-study, macroeconomic,  
14 in-use emissions and carbon regulation and  
15 policy.

16 Overall, the study's level of  
17 participation at this point has blossomed to  
18 391 willing and very capable professionals  
19 including the newly appointed Study Committee.

20 The diverse backgrounds of the  
21 study participants is apparent in the  
22 demographic slide before you with 42 percent

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1 coming from the oil and gas industry, 17  
2 percent Federal and state government, 13  
3 percent consulting, financial and legal  
4 professionals, 13 percent end users, 8 percent  
5 nongovernment organizations, 6 percent  
6 academia and one percent National Petroleum  
7 Council.

8 In total, the participants in the  
9 study represent over 100 companies agencies  
10 and institutions. And the quality of our  
11 efforts will be enhanced by their  
12 participation.

13 We are indeed grateful to the many  
14 NPC member organizations and government  
15 agencies that have generously provided  
16 resources to the study.

17 As you can well imagine, it has  
18 taken a great deal of time to identify and  
19 recruit members to the study. Using the  
20 timeline in the screen, I will direct your  
21 attention to the top of the slide which shows  
22 the three phases of the study which include:

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1 Origination, evaluation and recommendation  
2 phases.

3           We have completed phase 1. We're  
4 besides spending a good bit of time recruiting  
5 critical talent, we also define and refine the  
6 scope of the study and its underlying  
7 components from the task groups and major  
8 subgroups. And I would also point out that we  
9 not only have defined our scope, but we have  
10 also defined what is not in scope, which may  
11 be as important.

12           We are just past the midpoint of  
13 phase 2 where we have gone into full blown  
14 study evaluation consisting of gathering  
15 various studies and analyses of the same.

16           We're approaching an exciting  
17 point in the study in which we will be  
18 reviewing initial study findings and  
19 corresponding analyses. The plan is beginning  
20 to draw conclusions from the analysis and we  
21 will hope to have this complete by the end of  
22 November, 2010.

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1           We are marching along at a good  
2 clip. And we are cautiously optimistic that  
3 we will complete the study at or near the end  
4 of the first quarter of 2011, or shortly  
5 thereafter.

6           As mentioned earlier, much  
7 integration and coordination has occurred and  
8 will continue to do so between the two  
9 studies. Some of the major areas of  
10 integration include:

11           The use of natural gas as a  
12 transportation fuel;

13           Oil demand linked to  
14 transportation requirements, and;

15           Unconventional oil and gas  
16 resources will be delivered to the city-gates  
17 and to the refineries, and that will be  
18 handled in the Resource Study, whereas  
19 everything downstream of those city-gates and  
20 the refineries will be handled by the Fuel  
21 Study.

22           And the difference in completion

1 dates for the two studies, which will lead to  
2 several challenges on timely data exchange of  
3 supply and demand information between studies  
4 such as gas demand for natural gas vehicles  
5 and/or electric vehicles.

6 To ensure that we're on top of the  
7 integration issues, my Fuel Study counterpart  
8 and I meet weekly to discuss these issues. We  
9 attend one another's conference calls And we  
10 attend each others Coordinating Subcommittee  
11 meetings. In addition, both study's Working  
12 Leaders have met and are meeting on  
13 integration issues to ensure timely data flow  
14 and consistency across studies.

15 I might also mention that both  
16 studies share a Coordinating Subcommittee  
17 member who attends most of the two study's  
18 meetings and assist the leaders with  
19 identification of real time integration  
20 issues.

21 The last topic I will touch on  
22 this morning is that of outreach and

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1 communication. This activity also falls into  
2 the integration category as both groups will  
3 be communicating the purpose and process of  
4 the studies initially, as well as soliciting  
5 input from a broad range of interested parties  
6 including nongovernmental organizations. And  
7 finally, in presenting the findings and  
8 recommendations of the completed studies.

9           The targeted audiences for these  
10 presentations will be government, both Federal  
11 and state, associations including producers,  
12 consumers, professional and regulatory, public  
13 policy organizations, environmental non and  
14 government organizations and the media.

15           The expected timeframe for the  
16 initial outreach is in the fall of 2010 upon  
17 approval of both studies.

18           The findings and recommendation  
19 outreach will occur at the respective  
20 conclusions of the two studies in the spring  
21 of 2011 for the Resources Study and in the  
22 fall of 2011 for the Fuels Study.

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1                   That concludes my presentation,  
2 Jim. And I will now turn the podium back to  
3 you.

4                   MR. HACKETT: Great. Thank you,  
5 Clay.

6                   Again, everybody that's involved  
7 in the study, and Linda, wherever you are, to  
8 you as well and Clarence for the work  
9 combining the group. It's who goes first each  
10 time, right? You or me.

11                   So any questions, Clarence, if  
12 it's okay, we might deal with those.

13                   AUDIENCE MEMBER: Hi, I'm with  
14 Platts. What -- extent was the events of the  
15 summer, the Macondo blowout and the -- policy  
16 changes that will come out of this, to what  
17 extent are they being taken into consideration  
18 by both the groups.

19                   MR. HACKETT: The issues this  
20 summer are actually going to be addressed. We  
21 did not originally have a deep water section  
22 in our Supply Study, but we now do. And it's

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1 driven in part by that.

2 And what we'll do is taking into  
3 account the information we have. Again as  
4 Clay mentioned, we won't be making policy  
5 decisions. That will be something that DOE  
6 will weigh in as well, but we'll be gathering  
7 facts about issues related to that.

8 CHAIR DEMING: Let me interject.  
9 This Q&A part is for Council members only.  
10 There will be a time at the end of the meeting  
11 for press to ask questions.

12 MR. HACKETT: Yes, sir.

13 AUDIENCE MEMBER: I was looking at  
14 the diversity. There seems to a missing, like  
15 the coal industry, did they refuse to  
16 participate or something? It would be  
17 interesting in terms of our resource --

18 MR. HACKETT: Yes. I did not  
19 address that. That was not asked for by the  
20 Department of Energy and that's why it's not  
21 part of the task that we have in front of us.  
22 It was about oil and gas resources.

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1                   AUDIENCE MEMBER: I understand,  
2 I'm just saying I thought they were going to  
3 be part of --

4                   MR. HACKETT: You want to address  
5 that?

6                   MR. BRETCHES: I would be happy  
7 to. And let me say that many of the utilities  
8 that burn coal are a part of this study. So  
9 a lot of the decisions that they will be  
10 facing as far as what they burn will be  
11 incorporated in the study itself. So while  
12 we're not dealing with the coal industry  
13 directly, because as Jim stated, it was not  
14 part of the asked from the Secretary of  
15 Energy, we will be dealing with the issue of  
16 coal versus gas. And we'll be dealing with  
17 comparisons of footprints of greenhouse gas  
18 emissions, of other emissions primarily SO<sub>x</sub>,  
19 NO<sub>x</sub>  
20 and mercury. So, we will be addressing some  
21 of those issues that are associated with coal.

22                   CHAIR DEMING: Thank you very

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1 much. Clay, thank you for much. Linda and  
2 Clarence again, thanks so much for those  
3 updates.

4 We'll now turn to the reports of  
5 the Administrative Committees of the Council.  
6 And our first report this morning will be from  
7 Chuck Davidson, Chair of the NPC Finance  
8 Committee.

9 Chuck?

10 MR. DAVIDSON: Thank you, Mr.  
11 Chairman.

12 The Finance Committee did meet  
13 this morning. In fact, we've met now twice  
14 over the past 30 days. This morning we met  
15 with the representatives of the Council's  
16 independent auditor, which is Johnson, Lambert  
17 and Company. They reviewed their draft audit  
18 report for 2009. And that of course, based on  
19 that review, I'm pleased to report that  
20 accounting procedures and controls of the  
21 Council received high marks. The Council  
22 ended 2009 with a cash balance of \$210,000 of

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1 surplus, and that was a result of some very  
2 fine cost savings measures in favorable terms  
3 that we got on a new lease as part of the  
4 Council.

5 So, congratulations Marshall and  
6 the staff for watching costs very carefully in  
7 that challenging 2009 year.

8 Earlier in August the Committee  
9 also met to discuss the 2010 budget of the  
10 Council. We are recommending a calendar year  
11 2010 budget in the amount of \$4,587,000 with  
12 member contributions to be the same amount to  
13 fully fund the budget.

14 Now, while this budget does not  
15 include some of the reductions that we were  
16 able to put forward to the members last year,  
17 it does of course include the costs associated  
18 with the Future Transportation Fuels and the  
19 Resource Development Studies that we have just  
20 heard about this morning.

21 So subject to your approval of the  
22 budget and contribution recommendation, the

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1 Council will be sending individual member  
2 contribution requests in the near future. And  
3 we certainly encourage you to respond  
4 promptly.

5 Finally today, the Committee  
6 reviewed a draft formal charter for the  
7 Finance Committee. And that, of course,  
8 recognizes the Committee's finance audit and  
9 investment responsibilities. I believe the  
10 Council's fiscal governance processes are  
11 strong. We want to codify those and  
12 periodically review them in a formal charter.  
13 So once completed, which we expect in the very  
14 near future, we'll be distributing that  
15 charter to the full Council.

16 Mr. Chairman, that concludes my  
17 report.

18 CHAIR DEMING: Thank you, Chuck.

19 We have a motion to adopt the  
20 report of the Finance Committee. Do I have a  
21 second?

22 PARTICIPANT: Second.

1 CHAIR DEMING: Are there any  
2 questions or comments for the Finance  
3 Committee or Chuck Davidson? Then all those  
4 in favor say aye.

5 (Chorus of ayes.)

6 CHAIR DEMING: Opposed like sign?  
7 Thank you, Chuck.

8 And as he mentioned, we're deep  
9 into the Council's fiscal year and you can  
10 expect to receive your financial contribution  
11 request very shortly. And we would very much  
12 appreciate a prompt response.

13 Or other administrative report  
14 this morning is from the Nominating Committee,  
15 Ray Hunt Chairs this Committee but is unable  
16 to be with us this morning. And George Alcorn  
17 will now present the Committee's report.

18 George?

19 MR. ALCORN: Thank you, Mr.  
20 Chairman.

21 The Nominating Committee has  
22 agreed on its recommendation for NPC officers

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1 and chairs, and members of the two committee's  
2 agenda and appointment of this Council, and as  
3 well as the five at large members of the NPC  
4 co-chairs of the Coordinating Committee.

5 Accordingly, on behalf of this  
6 Committee I'm pleased to offer the following  
7 nominations for NPC chair: Dave O'Reilly,  
8 listen this is one smart Irishman. He's got  
9 the skills, the knowledge and the background  
10 to really make a terrific Chairman of this  
11 organization. And I think we ought to give  
12 him a round of applause for doing that.

13 (Applause.)

14 And coming in second is one of the  
15 good guys of this industry, and I'd like for  
16 him to stand up and be recognized, Doug  
17 Foshee.

18 (Applause.)

19 MR. ALCORN: For the Agenda, the  
20 Committee recommends the following members:  
21 Bob Catell, John Hamre, Ray Hunt, Dave Lasar,  
22 Andrew Liveris, John Miller -- bringing John

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1 Miller back, Mike Morris, John Mulva, Rex  
2 Tillerson and Dan Yergin. And Larry Nichols  
3 has agreed to serve as Chair.

4 The second committee is the  
5 Appointee Committee, and we recommend the  
6 following members: George Alcorn, Bob Best,  
7 Lynn Elsenhans, Bill Fisher, Jim Hackett, John  
8 Hess, Jim Rogers, Diemer True, Lou Ward and  
9 Bob Palmer to serve as Chairman.

10 In addition, we recommend the  
11 following as the At-Large Members of the Co-  
12 Chairs Coordinating Committee, and that's Greg  
13 Armstrong, Kateri Callahan, Steve Malcom,  
14 Robin West and Pat Woertz.

15 Mr. Chairman, this completes the  
16 report of the Nominating Committee. And on  
17 its behalf I move that the above slate be  
18 elected until the next organizational meeting  
19 of the Council.

20 Thank you, sir.

21 CHAIR DEMING: And thank you, sir.

22 I have a motion to adopt the

1 report of the NPC Nominating Committee. Do I  
2 have a second.

3 PARTICIPANT: Second.

4 CHAIR DEMING: Are there any  
5 further nominations from the floor? Heard  
6 none, all those in favor say aye.

7 (Chorus of ayes.)

8 CHAIR DEMING: Opposed like sign.  
9 The report is adopted.

10 This is my last meeting as your  
11 Chair. I'd like to briefly say two things.

12 One, a thank you to Marshall and  
13 his staff. This is a very tightly run  
14 organization and a very efficiently run  
15 organization. Your dollars are spent wisely  
16 at the administrative level. And Marshall does  
17 an outstanding job supporting people like  
18 myself who play this role.

19 And secondly, you have gotten a  
20 window into the amount of work that's being  
21 done on these two studies. The Council rarely  
22 does two studies. This is a year that we have

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1 been asked to conduct them. There are over  
2 400 to 500 people involved already.

3 We all do it on our own nickel and  
4 it reflects a public service to our country,  
5 which our industry has been a part of that  
6 predates the existence of the National  
7 Petroleum Council in 1946. This is not well  
8 known by the public, and certainly not  
9 appreciated by the public. But I think we as  
10 members should take great pride in the work  
11 that we do for our country.

12 Ladies and gentlemen, before the  
13 final items on our formal agenda, let me ask  
14 if any Council member has any other matters to  
15 raise at this time? Does any non-member wish  
16 to be recognized?

17 Our last item is a sad one which  
18 marks the passing of three distinguished  
19 Council members. These members represent  
20 diverse interests.

21 An independent producer and  
22 Cabinet officer, a leader in corporate

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1 governance and an investment banker and  
2 conservationist.

3 All three shared a decade's long  
4 commitment to the Council's goal of  
5 government/industry cooperation.

6 The Honorable Robert A. Mosbacher,  
7 Chairman of Mosbacher Energy Company, served  
8 on the Council for almost 30 years. He served  
9 as both Chairman and Vice Chairman of the  
10 Council, and as a member of our Nominating  
11 Committee and various study committees.

12 Mr. Frank M. Burke, Jr., Chairman  
13 and Chief Executive Officer Burke Mayborn  
14 Company, Limited. Was an active member of the  
15 Council serving almost 25 years. Frank rarely  
16 missed a Council meeting, and in fact had  
17 planned to be here today.

18 Mr. Matthew R. Simmons, founder of  
19 Simmons & Company International and recently  
20 Chairman of the Ocean Energy Institute served  
21 as an active member of the Council for almost  
22 14 years. As we all know, Matt kept us on our

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1 toes and never blindly accepted the status  
2 quo.

3 Both Frank and Matt served in  
4 various study committees and coordinating  
5 subcommittees and were long time members of  
6 the Finance Committee.

7 Ladies and gentlemen, I propose we  
8 honor the memory of these three members by  
9 rising for a moment of silent reflection and  
10 prayer.

11 Thank you.

12 It is time to call these  
13 proceedings to an end. Do I have a motion for  
14 adjournment?

15 PARTICIPANT: So moved.

16 CHAIR DEMING: A second?

17 PARTICIPANT: Second.

18 CHAIR DEMING: All those in favor?

19 (Chorus of ayes.)

20 CHAIR DEMING: The 120th Meeting  
21 of the NPC is hereby adjourned.

22 Thank you very much for your

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1 attendance.

2 (Whereupon, the above-entitled was  
3 adjourned at 10:31 a.m.)

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<b>A</b>				
<b>ability</b> 15:21	<b>activity</b> 60:21 81:1	<b>agencies</b> 77:9,15	48:14,14,21	62:11
<b>able</b> 24:14 26:7	<b>actual</b> 31:22	<b>agenda</b> 4:12 39:9	<b>answers</b> 68:12	<b>array</b> 8:1 27:18
57:13,15 86:16	<b>add</b> 49:1	47:8 89:2,19	<b>Antitrust</b> 76:11	<b>art</b> 49:13
<b>above-entitled</b> 95:2	<b>adding</b> 64:16	92:13	<b>aperture</b> 7:7 8:6	<b>Articles</b> 50:14
<b>abroad</b> 38:22	<b>addition</b> 76:7 80:11	<b>ago</b> 7:5 19:15 29:10	<b>apparent</b> 76:21	<b>Arun</b> 20:3
<b>absolutely</b> 28:10	90:10	41:4	<b>applause</b> 35:19	<b>Asia</b> 10:18
67:21	<b>additional</b> 63:17	<b>agreed</b> 28:14 46:4	46:3 49:20 89:12	<b>asked</b> 12:11,22
<b>academia</b> 8:8 15:16	71:10	88:22 90:3	89:13,18	16:20 17:2 83:19
52:13 77:6	<b>address</b> 12:12 54:1	<b>agreement</b> 56:6,7	<b>Appliance</b> 45:5	84:14 92:1
<b>Academy</b> 69:5	54:9 55:1 57:3	<b>air</b> 53:21 64:8,10	<b>apply</b> 64:1	<b>asking</b> 55:1
<b>accelerate</b> 58:14	58:1 83:19 84:4	64:13	<b>appointed</b> 50:17	<b>aspect</b> 55:1
62:13	<b>addressed</b> 82:20	<b>Alcorn</b> 1:17 88:16	76:19	<b>assembled</b> 52:12
<b>accelerated</b> 58:6	<b>addressing</b> 42:22	88:19 89:19 90:6	<b>Appointee</b> 90:5	<b>assess</b> 73:6
62:17	59:2 84:20	<b>allocations</b> 9:3	<b>appointment</b> 89:2	<b>assessing</b> 61:7,11
<b>acceleration</b> 65:6	<b>adjourned</b> 94:21	<b>allotted</b> 56:17	<b>Appointments</b>	<b>assist</b> 80:18
<b>accelerations</b> 65:9	95:3	<b>allowed</b> 30:14 38:9	50:15	<b>Assistant</b> 2:7 3:6
<b>accelerators</b> 61:22	<b>adjournment</b> 3:23	<b>alphabetic</b> 10:14	<b>appreciate</b> 45:22	5:14 36:1 72:12
<b>accept</b> 50:8	94:14	<b>Alterative</b> 36:11	49:22 53:9 67:22	72:13
<b>acceptance</b> 54:18	<b>adjust</b> 57:14	<b>alternative</b> 58:9	70:6 72:1 88:12	<b>associated</b> 84:21
56:2	<b>Administration</b>	69:9	<b>appreciated</b> 92:9	86:17
<b>accepted</b> 55:7	17:13 29:13 44:4	<b>ambitious</b> 13:15	<b>appreciative</b> 53:12	<b>Association</b> 64:9
71:19 94:1	46:12	<b>America</b> 1:1 22:10	<b>approach</b> 19:16	64:10,11
<b>Access</b> 8:16	<b>administrative</b>	24:11	20:20 44:19 55:11	<b>associations</b> 81:11
<b>accommodate</b> 56:8	3:17 85:5 88:13	<b>American</b> 3:13	60:16	<b>assumptions</b> 56:19
<b>accomplish</b> 76:9	91:16	14:12 17:9 20:16	<b>approaches</b> 21:4	56:21 60:17 61:20
<b>Accord</b> 41:16	<b>admit</b> 18:5	22:19 24:7,10,13	<b>approaching</b> 56:16	74:16
<b>account</b> 11:18	<b>adopt</b> 3:18,19	33:3 50:11 64:9	78:16	<b>attend</b> 80:9,10
22:15 47:2 83:3	87:19 90:22	64:10 69:6 73:9	<b>appropriate</b> 21:22	<b>attendance</b> 4:17,20
<b>accounting</b> 85:20	<b>adopted</b> 37:13 91:9	<b>America's</b> 74:6	22:8 25:1,20	95:1
<b>accrued</b> 66:21	<b>advanced</b> 19:19	<b>amount</b> 50:19	74:15	<b>attends</b> 80:17
<b>accurate</b> 4:19	20:1,9 44:7	86:11,12 91:20	<b>appropriately</b>	<b>attention</b> 77:21
35:13	<b>advancement</b> 62:1	<b>amounts</b> 11:22	22:13	<b>At-Large</b> 90:11
<b>achieve</b> 35:7 48:8	<b>advances</b> 54:14	<b>Anadarko</b> 55:13	<b>approval</b> 50:16	<b>Aubrey</b> 75:19
<b>achieving</b> 21:13	55:4 58:16	<b>analyses</b> 9:2 65:11	81:17 86:21	<b>AUDIENCE</b> 33:8
28:21	<b>advantage</b> 39:11	78:15,19	<b>approximately</b>	82:13 83:13 84:1
<b>acknowledge</b> 6:11	<b>adverse</b> 24:17	<b>analysis</b> 61:18 65:6	66:14	<b>audiences</b> 81:9
10:22	<b>advice</b> 6:21 16:21	78:20	<b>April</b> 13:1 54:20	<b>audit</b> 85:17 87:8
<b>act</b> 16:3 19:17 20:9	19:3,5 50:9	<b>analytical</b> 57:4	71:8	<b>auditor</b> 85:16
26:19 29:12 41:20	<b>advise</b> 54:5	<b>analyze</b> 62:3	<b>area</b> 11:6 33:1 40:1	<b>August</b> 86:8
44:6 50:5	<b>Advisor</b> 2:9,21 3:6	<b>analyzing</b> 61:8,13	42:3 59:19	<b>authoritatively</b>
<b>Acting</b> 1:17	5:15 36:3 50:3	<b>Andrew</b> 89:22	<b>areas</b> 17:12 19:6	7:13
<b>action</b> 70:13	<b>Affairs</b> 2:11 3:7	<b>and/or</b> 80:5	33:21 42:3 47:13	<b>authorities</b> 45:1
<b>actions</b> 37:5 55:2	5:16 36:3	<b>announced</b> 12:9	50:9 68:17 76:10	<b>auto</b> 53:21
58:15	<b>affect</b> 30:10	14:12	79:9	<b>automobiles</b> 14:5
<b>active</b> 93:14,21	<b>afford</b> 40:3	<b>another's</b> 80:9	<b>Arisides</b> 69:1	14:16
<b>activities</b> 50:5	<b>affordable</b> 52:3	<b>answer</b> 16:7 30:2	<b>Armstrong</b> 90:13	<b>available</b> 35:5
	<b>Africa</b> 40:17	34:7 35:12 40:7	<b>ARPA-E</b> 20:2,3	62:10 63:13



<b>Avenue</b> 1:12	<b>benefits</b> 25:18 31:6 31:13	<b>bring</b> 7:8,9 9:4 11:20 13:11 24:14 27:17 43:17 57:11 68:16,18	<b>capable</b> 26:11 76:18	60:6 67:14 68:22 70:9 83:8 84:22 85:7 87:18 88:1,6 89:7 90:3,21 91:4 91:8,11 94:16,18 94:20
<b>Aviation</b> 64:8	<b>benign</b> 38:5	<b>bringing</b> 21:19 25:22 47:21 89:22	<b>Capuano</b> 1:19 3:10 53:4,16 69:15	<b>Chaired</b> 59:11 61:5 61:15
<b>awesome</b> 70:17	<b>best</b> 27:10 46:18 90:6	<b>brings</b> 9:4	<b>carbon</b> 19:11 20:8 20:17 44:15 48:11 76:14	<b>Chairing</b> 6:14,15
<b>aye</b> 88:4 91:6	<b>better</b> 39:3 43:19 43:21 63:2 67:19	<b>broads</b> 27:18 46:15 52:9 53:22 56:13 64:16 81:5	<b>carbon-free</b> 12:1	<b>Chairman</b> 68:20 75:17,19 85:11 87:16 88:20 89:10 90:9,15 93:7,9,9 93:12,20
<b>eyes</b> 88:5 91:7 94:19	<b>beyond</b> 40:2 69:22	<b>broaden</b> 57:11	<b>care</b> 37:19	<b>challenge</b> 13:9 55:7
<b>a.m</b> 1:13 4:2 95:3	<b>big</b> 34:10	<b>brought</b> 8:7 14:6 47:22 53:13 67:21	<b>carefully</b> 86:6	<b>challenges</b> 16:17 18:10 21:19 23:4 26:21 29:15 40:14 44:20 80:2
	<b>bill</b> 44:16 90:7	<b>Bruno</b> 33:19	<b>carried</b> 16:13	<b>chairs</b> 51:6 55:10 60:1,7 67:4 70:20 88:15 89:1 90:12
	<b>billion</b> 12:9 20:12 20:20 26:19 42:5 44:5	<b>budget</b> 86:9,11,13 86:14,22	<b>carry</b> 9:10	<b>challenge</b> 13:9 55:7
	<b>biofuel</b> 62:16	<b>buggy</b> 14:7	<b>cars</b> 45:4	<b>challenging</b> 34:9 86:7
	<b>biofuels</b> 13:5 19:19 20:1 65:21	<b>build</b> 9:18 34:1,18 39:19 70:6	<b>case</b> 13:17 25:3 26:1 64:21	<b>chance</b> 20:2
	<b>biomass</b> 19:20,22	<b>building</b> 10:7 45:2	<b>cash</b> 85:22	<b>change</b> 9:3 10:10 41:5,11 42:16,22 47:16 48:15,21
	<b>biopower</b> 19:20	<b>buildings</b> 11:17	<b>category</b> 11:5 81:2	<b>changes</b> 13:16 15:5 82:16
	<b>bioproducts</b> 19:20	<b>built</b> 12:3	<b>Catell</b> 89:21	<b>changing</b> 33:11 54:21
	<b>biorefinery</b> 19:18	<b>bulk</b> 59:6 68:15	<b>Caterpillar</b> 59:18	<b>chapeau</b> 31:21
	<b>bit</b> 30:5 56:20 78:4	<b>burdens</b> 14:19	<b>cautiously</b> 79:2	<b>characteristics</b> 61:3 63:12,14,15 63:18,21 65:14
	<b>blanket</b> 43:10	<b>Burke</b> 3:21 93:12 93:13	<b>Cazalot</b> 1:21 3:9 5:17 6:14 51:6,9 59:12 67:13 69:14 70:1	<b>characterize</b> 22:12 <b>characterized</b> 27:13 30:17 67:15
	<b>blindly</b> 94:1	<b>burn</b> 84:8,10	<b>Center</b> 9:2	<b>chargers</b> 20:15
	<b>blossomed</b> 76:17	<b>business</b> 5:22 18:11 45:8	<b>central</b> 22:11	<b>CHARLES</b> 1:23
	<b>blown</b> 78:13	<b>buy</b> 15:10	<b>CEO</b> 75:19	<b>charter</b> 87:6,12,15
	<b>blowout</b> 82:15	<b>by-50</b> 48:9	<b>certain</b> 18:16 30:13 43:5 57:17 68:17	<b>charts</b> 13:11
	<b>Blue</b> 12:14		<b>certainly</b> 22:4 33:20 37:20 39:9 46:20 47:4 49:2 70:6 87:3 92:8	<b>checked</b> 4:18
	<b>Bob</b> 89:21 90:6,9		<b>chain</b> 65:15	<b>check-in</b> 4:15
	<b>Boeing</b> 64:9		<b>chains</b> 61:19 62:13 62:15 63:6 65:8 65:14	<b>chemical</b> 20:7
	<b>bold</b> 37:4		<b>chair</b> 1:13,15,17,18 1:19,21,23 2:12 2:19 3:9,10,14,15 4:3 5:10,11,18 6:13 26:13 28:10 28:13 31:1 33:5 35:16,20 46:4,6 48:4 49:18,21 53:3 59:19,20	<b>Chesapeake</b> 75:20
	<b>Bonneville</b> 29:12			
	<b>bosses</b> 39:22	<b>C</b>		
	<b>both/and</b> 40:3 49:6	<b>C</b> 2:21		
	<b>bottom</b> 66:9	<b>Cabinet</b> 92:22		
	<b>Brand</b> 60:6 61:15	<b>calendar</b> 86:10		
	<b>brass</b> 35:9	<b>caliber</b> 18:6		
	<b>Brazil</b> 40:17 41:3	<b>California</b> 64:15		
	<b>breakneck</b> 14:13	<b>call</b> 11:13 69:20 94:12		
	<b>Brent</b> 12:16	<b>Callahan</b> 90:13		
	<b>Bretches</b> 1:18 3:15 67:3 71:16 72:2 84:6	<b>called</b> 44:13 69:2		
	<b>briefed</b> 17:6 26:8	<b>calling</b> 4:15 68:16		
	<b>briefing</b> 69:16	<b>calls</b> 80:9		
	<b>briefly</b> 91:11	<b>Cambridge</b> 75:18		
	<b>brilliant</b> 27:2	<b>capabilities</b> 7:19 15:16		

<b>Chevron</b> 61:6	47:16 48:15,21	58:19 59:11,15	<b>completes</b> 90:15	<b>Consider</b> 54:13
<b>Chief</b> 93:13	<b>climatic</b> 8:19	69:5 70:15,19	<b>completion</b> 79:22	<b>considerable</b> 50:19
<b>China</b> 32:14 40:16	<b>clip</b> 79:2	71:19 75:7,11	<b>complex</b> 50:22	<b>consideration</b>
41:2,5,7 43:8 46:9	<b>close</b> 45:19 48:1	76:19 85:8,12	51:19 67:17	48:19 82:17
46:16,21 47:5	<b>coal</b> 13:13 29:5	86:8 87:5,7,20	<b>complexity</b> 52:10	<b>considerations</b>
<b>China's</b> 47:10	39:21 44:8 49:4,8	88:3,14,15,21	<b>complicated</b> 48:16	49:13
<b>choice</b> 11:21 12:2	83:15 84:8,12,16	89:4,6,20 90:4,5	<b>components</b> 20:14	<b>considered</b> 48:18
<b>choices</b> 8:20 12:18	84:21	90:12,16 91:1	78:7	<b>considering</b> 18:11
24:16	<b>coalbed</b> 11:10	93:11 94:6	<b>composed</b> 76:4	<b>consistency</b> 80:14
<b>Chorus</b> 88:5 91:7	25:10,15	<b>committees</b> 50:18	<b>comprehensive</b>	<b>consistent</b> 44:16
94:19	<b>Coast</b> 9:15	85:5 93:11 94:4	44:13,18 52:21	<b>consisting</b> 78:14
<b>Chrysler</b> 64:14	<b>code</b> 39:14	<b>committee's</b> 87:8	69:7	<b>constitutes</b> 64:5
<b>Chu</b> 5:5 6:18 9:21	<b>codify</b> 87:11	88:17 89:1	<b>compromised</b> 75:6	<b>constraints</b> 42:19
11:12 12:11 16:20	<b>collaboration</b>	<b>common</b> 7:7	<b>concentrated</b> 22:8	<b>constructive</b> 68:11
19:4 21:13 27:6	52:17	<b>communicate</b>	<b>concerns</b> 15:2	<b>consulting</b> 77:3
53:18 71:6	<b>colleague</b> 7:3 13:10	57:12 65:2 66:10	<b>concludes</b> 82:1	<b>consumer</b> 38:6
<b>Chuck</b> 85:7,9 87:18	16:1	<b>communicating</b>	87:16	<b>consumers</b> 81:12
88:3,7	<b>colleagues</b> 6:12	57:9 81:3	<b>conclusion</b> 68:18	<b>context</b> 8:21 42:20
<b>Chu's</b> 50:8	<b>college</b> 15:7 25:7	<b>communication</b>	<b>conclusions</b> 23:2	58:3
<b>Citigroup's</b> 36:11	<b>combining</b> 82:9	67:9 76:11 81:1	68:6 74:10 78:20	<b>Continental</b> 1:12
<b>city-gates</b> 79:16,19	<b>combustion</b> 20:22	<b>communications</b>	81:20	<b>continue</b> 24:11
<b>Claiborne</b> 1:13,15	62:22	72:22	<b>concurrence</b> 50:15	44:21 68:14 79:8
6:8 21:14 36:15	<b>come</b> 4:6 10:16	<b>communities</b> 34:20	<b>condemned</b> 14:13	<b>continued</b> 2:5
40:10 51:10 71:2	16:15 34:22 57:12	35:2	<b>conditions</b> 42:4	27:12
<b>Clarence</b> 1:21 3:9	65:17 68:6 82:16	<b>community</b> 8:8	55:4	<b>continues</b> 47:5
5:17 6:14 22:14	<b>comes</b> 7:20	38:3	<b>conduct</b> 56:14	<b>continuing</b> 10:16
26:12 51:6 53:16	<b>coming</b> 7:4 28:1	<b>companies</b> 24:15	61:21 92:1	<b>contracts</b> 32:22
59:12 64:2 70:9	66:5 77:1 89:14	27:19 33:3 77:9	<b>conducted</b> 52:6	<b>contribute</b> 23:3
70:14 82:8,11	<b>commencing</b> 55:19	<b>company</b> 69:2	<b>conference</b> 80:9	<b>contribution</b> 22:21
85:2	<b>comment</b> 48:20	75:16 85:17 93:7	<b>confidence</b> 24:12	86:22 87:2 88:10
<b>clarify</b> 56:18,21	52:14	93:14,19	27:1	<b>contributions</b>
<b>clarifying</b> 54:22	<b>comments</b> 88:2	<b>company's</b> 45:17	<b>conflict</b> 68:10	86:12
<b>Clay</b> 1:18 3:15 67:3	<b>commercial</b> 31:22	<b>compared</b> 29:5	<b>conflicts</b> 56:11	<b>controls</b> 85:20
67:7 71:16,21	58:10	<b>comparing</b> 63:21	<b>congratulations</b>	<b>conventional</b> 73:5
82:5 83:4 85:1	<b>commiserate</b> 40:20	<b>comparisons</b> 84:17	86:5	<b>conversations</b> 8:10
<b>clean</b> 9:19 10:2,4	<b>Commission</b> 12:14	<b>compete</b> 38:13	<b>Congress</b> 34:21	<b>convert</b> 20:8
17:16 22:22 39:20	<b>commitment</b> 13:19	44:11	<b>Congressman</b>	<b>cooperation</b> 13:2
44:8,9,11 49:3,8	43:6 52:11 68:1	<b>competition</b> 8:22	12:17	27:12 31:22 40:13
54:11	93:4	<b>competitive</b> 20:1	<b>conjunction</b> 37:6	47:14 93:5
<b>cleaner</b> 44:4	<b>commitments</b>	39:2,15	<b>conscious</b> 16:22	<b>coordinate</b> 57:15
<b>clear</b> 9:21 17:11	41:12	<b>competitiveness</b>	<b>consensus</b> 56:6	<b>coordinates</b> 58:20
33:16 52:19	<b>committed</b> 10:6	37:22 52:2 54:18	<b>consensus-based</b>	<b>coordinating</b> 1:18
<b>cleared</b> 34:1	29:21 44:4 71:13	58:5 61:12 74:2	56:4,5	1:19 3:11,15 53:3
<b>Clients</b> 36:12	<b>committee</b> 1:17,18	<b>complete</b> 43:19	<b>consequences</b> 9:13	58:19 59:12,16
<b>climate</b> 8:21 9:3	1:20,22,23 2:12	51:1 78:21 79:3	14:3 24:18 54:12	60:11 66:13 67:2
10:9 41:5,11	3:14,17,18 5:12	<b>completed</b> 65:4	<b>conservationist</b>	71:17 75:7 76:3,7
42:16,22 44:13	5:18 50:15 51:6	78:3 81:8 87:13	93:2	80:10,16 89:4

90:12 94:4	<b>CO2</b> 41:8	<b>Davidson</b> 1:23 85:7	49:21 68:22 70:9	<b>developing</b> 31:10
<b>coordination</b> 79:7	<b>crack</b> 39:14	85:10 88:3	83:8 84:22 87:18	41:22 50:20 64:21
<b>Copenhagen</b> 41:15	<b>create</b> 10:8 45:8	<b>day</b> 7:6 15:8 27:14	88:1,6 90:21 91:4	<b>development</b> 1:19
41:16	<b>created</b> 37:10	<b>days</b> 31:18 68:13	91:8 94:16,18,20	2:13 3:13,14 5:12
<b>core</b> 47:2	<b>creating</b> 7:21 15:10	85:14	<b>demographic</b> 76:22	10:21 11:9 15:1
<b>corporate</b> 92:22	18:19	<b>deal</b> 11:19 36:21	<b>demographics</b>	17:9 20:13 22:9
<b>corresponding</b>	<b>credibility</b> 56:1	44:20 47:10 52:16	10:18	22:19 30:21 32:1
78:19	<b>credible</b> 52:20	67:19 77:18 82:12	<b>Department</b> 1:1	44:10 45:9 50:10
<b>cost</b> 20:1 39:12	<b>crises</b> 37:15	<b>dealing</b> 84:12,15,16	7:1 19:6,13 25:5	62:5 70:20 74:6
42:4 54:15 61:2	<b>critical</b> 45:15 55:22	<b>Deanne</b> 59:19	26:13,17 28:19	86:19
86:2	78:5	<b>debate</b> 40:2,3 57:11	34:11 72:6,11	<b>developments</b> 11:7
<b>costs</b> 45:15 62:6	<b>critically</b> 23:15	<b>debative</b> 56:10	83:20	54:9
86:6,17	45:21	<b>decade</b> 33:16 41:4	<b>Department's</b> 50:5	<b>devil</b> 14:13
<b>Council</b> 1:4,11,16	<b>criticized</b> 14:14	<b>decades</b> 10:16	<b>dependence</b> 23:4	<b>dialogue</b> 34:14
2:15,20 4:6,9,13	<b>cross</b> 16:3	13:14 15:3	<b>dependent</b> 30:13	68:11
5:9 16:20 27:7	<b>Crystal</b> 4:16	<b>decade's</b> 93:3	<b>depending</b> 42:4	<b>dialogues</b> 32:12
34:15 36:5,6 50:7	<b>cubic</b> 25:13,14	<b>December</b> 66:19	<b>depends</b> 18:19 52:2	<b>Diemer</b> 90:8
70:13 72:6,7 76:2	<b>Cummins</b> 60:9	<b>decency</b> 14:15	57:17	<b>diesel</b> 43:12
77:7 83:9 85:5,21	<b>current</b> 39:1 56:14	<b>decency</b> 14:15	<b>deploy</b> 15:21 16:3	<b>differ</b> 74:17
85:21 86:4,10	63:1	<b>decided</b> 22:5	<b>deployment</b> 17:15	<b>difference</b> 79:22
87:1,15 89:2	<b>currently</b> 40:15	<b>decisions</b> 83:5 84:9	18:2 20:13 35:6,7	<b>differences</b> 68:8
90:19 91:21 92:7	51:13	<b>declaring</b> 40:11	58:8	<b>different</b> 13:13
92:14,19 93:8,10	<b>customer</b> 54:17	<b>decline</b> 13:12	<b>deposited</b> 26:18	61:19 62:15 67:4
93:15,16,21	<b>cut</b> 29:6	<b>deemed</b> 17:3	<b>Depression</b> 37:3	67:16 69:12,20
<b>Council's</b> 5:4,21	<b>cycle</b> 12:12 25:20	<b>deep</b> 32:4 46:15	<b>Deputy</b> 2:7,8,16	<b>difficult</b> 12:13 34:9
17:13 50:13 85:15	55:5	82:21 88:8	3:4,6,6 5:3,14,15	47:12
87:10 88:9 93:4	<b>C-O-N-T-E-N-T-S</b>	<b>define</b> 24:18 78:5	6:1,6,7 28:11 29:1	<b>dinner</b> 14:9
<b>counterpart</b> 80:7	3:1	<b>defined</b> 78:9,10	31:2,14 34:6	<b>dioxide</b> 20:8
<b>counterparts</b> 32:13		<b>definition</b> 23:16	35:18 36:1,2	<b>direct</b> 70:7 77:20
32:14 40:14		<b>deliver</b> 34:4,5	72:13 75:13	<b>direction</b> 43:15
<b>countries</b> 13:4 32:4	<b>D</b>	57:19 58:11	<b>describing</b> 58:6,15	<b>directions</b> 12:5
32:9 40:16 41:4	<b>D</b> 1:18,23 3:15	<b>deliverable</b> 57:18	61:10 72:19 73:15	<b>directly</b> 84:13
41:22 43:18	<b>Dan</b> 24:9 28:13,18	<b>deliverables</b> 72:19	<b>description</b> 74:8	<b>Director</b> 2:14 5:21
<b>country</b> 12:4 36:22	33:6 35:17,20	<b>delivered</b> 69:7,12	<b>design</b> 18:17	36:11 76:2
92:4,11	44:3 49:1,21	79:16	<b>destroyed</b> 14:18	<b>discovered</b> 34:12
<b>country's</b> 37:18	59:13 75:13,17	<b>delivery</b> 33:14	<b>destroying</b> 48:9	<b>discovery</b> 18:4 23:7
<b>couple</b> 12:5 26:5	90:2	<b>delve</b> 75:2	<b>detail</b> 53:18	<b>discuss</b> 80:8 86:9
28:8 29:3,10	<b>dangerous</b> 36:21	<b>demand</b> 15:10 47:7	<b>detailed</b> 55:18	<b>discussed</b> 11:3
31:15	<b>Daniel</b> 2:16 3:3 5:3	54:2 58:1,20	<b>details</b> 67:9	<b>discussion</b> 27:22
<b>course</b> 8:18 11:3	6:5	59:19,20 60:4,15	<b>determined</b> 44:11	32:15 74:22
13:7,9 74:10	<b>Dan's</b> 39:8	60:17 65:9 73:6	<b>Deutsche</b> 60:5	<b>dispatch</b> 33:11
85:18 86:17 87:7	<b>data</b> 43:19 56:20	73:20 74:19 75:10	67:14	<b>dispense</b> 4:14
<b>courses</b> 8:13	57:14 62:12 64:1	76:6 79:13 80:3,4	<b>develop</b> 12:21 18:9	<b>disruptive</b> 62:9
<b>cover</b> 33:12	67:6 68:3 80:2,13	<b>Deming</b> 1:13,15 4:3	20:1 48:2 55:18	<b>dissertations</b> 67:17
<b>Co-Chair</b> 5:4	<b>dates</b> 80:1	28:10,13 31:1	64:22 65:1 75:1	<b>distinguished</b>
<b>co-chairs</b> 26:12	<b>Dave</b> 5:10 59:15	33:5 35:16,20	<b>developed</b> 18:8	12:15 92:18
59:14 89:4	89:7,21	46:4 48:4 49:18	41:19 74:4	<b>distortions</b> 42:21
	<b>David</b> 2:19 6:12			

<b>distributing</b> 87:14	45:16 46:8 47:1	<b>Elsenhans</b> 90:7	<b>engaged</b> 32:7 46:17	<b>exciting</b> 78:16
<b>distribution</b> 30:6	52:1 54:18 57:8	<b>embodies</b> 8:1	51:13 53:10	<b>Excuse</b> 60:13
31:5 54:16 62:18	58:4 61:12 63:2	<b>embraced</b> 42:14	<b>engagement</b> 70:7	<b>execute</b> 55:20
<b>diverse</b> 52:15 55:21	74:1	<b>emerge</b> 48:10	<b>engine</b> 20:22 62:20	<b>Executive</b> 2:14
59:10 76:20 92:20	<b>economics</b> 42:15	<b>emerging</b> 38:9	62:22 63:6	5:21 75:11 76:1
<b>diversified</b> 19:2	59:3,8	41:19 43:6 48:10	<b>engineering</b> 31:8	93:13
<b>diversity</b> 27:16	<b>economies</b> 37:6	53:5	<b>enhance</b> 10:7,8	<b>exercise</b> 46:5
55:20 83:14	38:9 41:12,13,14	<b>emersion</b> 41:13	<b>enhanced</b> 77:11	<b>exist</b> 39:20
<b>doe</b> 20:11 24:1	43:6 48:9,10	<b>emission</b> 63:13	<b>enrich</b> 8:10	<b>existence</b> 92:6
65:19 83:5	<b>economy</b> 8:14,15	<b>emissions</b> 11:17	<b>ensure</b> 4:19 80:6,13	<b>existing</b> 33:18 70:3
<b>doing</b> 15:22 29:11	10:7 17:19 22:22	17:21 18:22 21:16	<b>entered</b> 34:14	74:14
32:20 47:2 49:10	37:8 40:21 45:3	23:12 29:6 40:6	<b>entering</b> 13:4 59:1	<b>expand</b> 22:20
53:11 66:10 70:15	45:12,13 52:7	41:8,20 42:9 45:3	<b>entry</b> 13:12	37:22 39:18
71:22 89:12	73:13	54:15 55:5 59:7	<b>environment</b> 9:13	<b>expanding</b> 64:19
<b>dollars</b> 91:15	<b>Edison</b> 64:15	62:7 63:2,22	38:6 41:2 52:7	<b>expect</b> 43:3 87:13
<b>domestic</b> 9:19 47:7	<b>education</b> 39:4	73:12 76:14 84:18	54:14 57:8 58:4,8	88:10
<b>domestically</b> 47:19	<b>effect</b> 15:8 23:7	84:18	73:17 74:1 75:10	<b>expectation</b> 14:5
<b>doubling</b> 15:7	57:6	<b>emitter</b> 41:6	76:6	16:10 54:17
29:22 38:15	<b>effective</b> 44:19	<b>emitters</b> 41:19	<b>environmental</b> 9:9	<b>expectations</b> 18:5
<b>Doug</b> 89:16	56:16	<b>emphasize</b> 18:13	28:3 33:22 48:7	32:16
<b>downstream</b> 79:19	<b>efficiency</b> 11:13	<b>encourage</b> 87:3	59:2 61:11 81:13	<b>expected</b> 41:19
<b>downward</b> 36:21	40:7 44:6 45:5	<b>encouraging</b> 43:18	<b>environmentally</b>	81:15
<b>Dr</b> 13:10	49:7 54:14	<b>ended</b> 85:22	17:22	<b>experiences</b> 27:9
<b>draft</b> 85:17 87:6	<b>efficient</b> 52:3 56:16	<b>energy</b> 1:1 2:17,22	<b>Equality</b> 34:15	<b>expertise</b> 8:2 16:18
<b>drafting</b> 66:8	<b>efficiently</b> 9:19	3:4 5:4,5 6:2,6	<b>equation</b> 49:9	27:20 68:17
<b>dramatic</b> 11:5 23:6	11:2 23:19 91:14	7:15,20,21 8:13	<b>establish</b> 31:19	<b>experts</b> 62:2
26:2	<b>efficiency</b> 58:7	8:16,20 9:7,18,19	32:20	<b>explaining</b> 73:8
<b>draw</b> 15:15 78:20	<b>effort</b> 16:22 18:7	9:20 10:2,4 11:1	<b>established</b> 50:17	<b>exploitation</b> 32:1
<b>driven</b> 83:1	22:1 43:3,17	11:13,21 17:16,19	<b>estimates</b> 42:7	<b>exploration</b> 32:1
<b>dump</b> 31:6	50:19 52:11,18	18:1,10 19:12	<b>estimating</b> 60:20	<b>exports</b> 38:1,15,20
<b>dust</b> 14:18	53:9	20:7 22:22 23:9	<b>evaluate</b> 54:12 62:4	38:21
<b>dynamics</b> 54:19	<b>efforts</b> 15:14 16:2	24:16 25:5,8	62:9	<b>exposure</b> 30:11
<b>D.C</b> 1:13	42:2 43:8 45:17	26:14,17 28:19	<b>evaluating</b> 60:16	<b>extend</b> 8:2
	45:22 73:1,19	30:13,20 32:12	61:6	<b>extended</b> 54:10
	77:11	34:5 35:8 36:17	<b>evaluation</b> 78:1,14	<b>extending</b> 69:19
<b>E</b>	<b>EIA</b> 10:13,19	39:4,5 40:4,7 41:8	<b>evening</b> 20:4	<b>extensive</b> 54:4
<b>earlier</b> 14:3 38:14	<b>eight</b> 37:9 67:16	42:15,21 43:18	<b>events</b> 82:14	<b>extent</b> 70:3 82:14
49:1 52:14 79:6	<b>either/or</b> 40:2 49:6	44:2,4,6,9,12,13	<b>everybody</b> 42:17	82:17
86:8	<b>elected</b> 90:18	45:16 47:18 48:2	71:11 82:6	<b>extraordinarily</b>
<b>early</b> 31:18 43:2	<b>electric</b> 21:4 63:5,9	49:3 50:4 52:8,22	<b>everybody's</b> 22:8	34:9
68:13	64:14 65:19 80:5	54:14 57:8,20	<b>evolving</b> 41:1	
<b>easy</b> 34:7 35:11	<b>electrical</b> 20:7	58:5,12 61:11	<b>exactly</b> 16:19 34:3	<b>F</b>
68:3,4	33:12	69:6 72:6,11	<b>examine</b> 57:2	<b>faces</b> 29:15 40:15
<b>economic</b> 2:11 3:7	<b>electricity</b> 12:1	73:21 74:2,5	<b>example</b> 32:10 64:8	<b>facing</b> 36:22 37:1
5:16 7:14 9:9	43:9	75:14,18,20 83:20	<b>examples</b> 16:13	84:10
17:18 28:3 33:2	<b>eliminated</b> 42:8	84:15 93:7,20	<b>exceeds</b> 42:5	<b>fact</b> 16:16 25:3
34:15 36:3,6,9,17	<b>Eliminating</b> 42:11	<b>enforce</b> 39:1	<b>exchange</b> 80:2	38:3 40:22 85:13
36:22 38:5 40:12				

93:16 <b>factored</b> 70:8 <b>factors</b> 22:14 52:7 74:18 <b>factory</b> 21:7 <b>facts</b> 57:3 75:3 83:7 <b>fair</b> 8:5 <b>fairly</b> 48:12 69:7 <b>fall</b> 81:16,22 <b>falls</b> 32:17 81:1 <b>far</b> 17:7 48:19 84:10 <b>fascinating</b> 29:2 <b>fast</b> 26:21 37:9 41:9 <b>fathom</b> 41:10 <b>favor</b> 88:4 91:6 94:18 <b>favorable</b> 86:2 <b>feared</b> 14:11 <b>features</b> 62:22 <b>Federal</b> 37:5 77:2 81:10 <b>FedEx</b> 60:9,9 64:12 <b>feedback</b> 57:13 64:20 65:2 66:22 <b>feedstocks</b> 19:21 <b>feet</b> 25:14,15 <b>FERC</b> 34:15 <b>fiber</b> 8:14 <b>field</b> 28:14 33:2 <b>figuring</b> 21:21 46:17 <b>final</b> 44:1 52:20 92:13 <b>finally</b> 44:1 73:18 81:7 87:5 <b>finance</b> 1:23 3:17 85:7,12 87:7,8,20 88:2 94:6 <b>finances</b> 37:18 <b>financial</b> 37:11,12 37:15 77:3 88:10 <b>find</b> 24:15 34:16 40:5 46:22 47:13 <b>findings</b> 56:2 57:12 64:22 66:6 68:6 70:4 74:9 78:18	81:7,18 <b>fine</b> 86:2 <b>finished</b> 52:4 <b>first</b> 5:22 26:20 29:4,4 34:11 43:1 46:6 66:4 71:4 79:4 82:9 85:6 <b>fiscal</b> 42:19 87:10 88:9 <b>Fisher</b> 90:7 <b>Fisker</b> 21:9 <b>fits</b> 36:18 <b>five</b> 38:16 41:9 89:3 <b>flooding</b> 9:5 <b>floor</b> 91:5 <b>flourish</b> 33:4 <b>flow</b> 80:13 <b>focus</b> 40:6 58:15 73:3 76:10 <b>focused</b> 8:18 69:9 <b>folio</b> 16:3 <b>following</b> 47:17 89:6,20 90:6,11 <b>follow-up</b> 71:8 <b>footprints</b> 84:17 <b>force</b> 15:9 <b>Ford</b> 15:7,11 20:20 <b>forecasting</b> 65:10 <b>forecasts</b> 60:17 61:7 <b>foreseeable</b> 45:13 <b>form</b> 73:20 <b>formal</b> 87:6,12 92:13 <b>Forman</b> 26:6 32:11 <b>format</b> 32:17 <b>former</b> 12:16,16 <b>formulate</b> 28:16 52:22 <b>forum</b> 40:12 41:15 <b>forward</b> 6:4 12:18 16:7,13 17:6 18:8 24:19 53:13 55:14 56:8 65:12 86:16 <b>Foshee</b> 89:17 <b>fossil</b> 10:17 11:1,4 39:19 40:6 42:1,5	42:7,11 45:11 <b>found</b> 14:8 <b>foundation</b> 57:1,4 69:19 <b>founder</b> 93:18 <b>framework</b> 13:1 37:14 <b>Frank</b> 3:21 93:12 93:15 94:3 <b>frankly</b> 15:10 67:18 68:5 <b>freight</b> 59:5,7 60:18 <b>frequent</b> 43:20 <b>fresh</b> 13:20 <b>friend</b> 7:3 13:10 <b>friends</b> 6:11 <b>Froman</b> 2:7 3:5 5:14 7:4,16 36:1 36:14,15 46:14 48:22 49:17 <b>front</b> 57:7 83:21 <b>fruit</b> 11:13,14 <b>fruition</b> 31:7 <b>fuel</b> 6:15 11:4 12:12 13:3 17:8 19:10 21:11 42:2 42:5,7,11 45:3 51:16 53:20 54:2 57:21 58:1,7 60:21 61:1,9 62:15 63:6,12 79:12,20 80:7 <b>fuels</b> 1:21,22 3:9,10 5:19 10:17 20:8 21:20 39:19 40:6 45:12 48:11 50:10 51:7 54:7,11 58:9 62:19 69:10 70:17 81:22 86:18 <b>full</b> 4:12 26:8 39:9 53:4,6 74:4 78:13 87:15 <b>fully</b> 22:12 30:17 45:10 86:13 <b>fund</b> 21:9 86:13 <b>fundamental</b> 8:13	9:8 <b>Fundamentally</b> 18:2 <b>funding</b> 26:20 41:21 <b>further</b> 11:9 37:20 91:5 <b>future</b> 1:20,22 3:8 3:10 5:18 7:21 9:9,18 11:21 17:7 18:17 20:17 22:21 24:16 30:20 37:16 39:17 44:5 45:13 46:21 48:3 49:3 50:9 51:7,15 52:22 53:20 57:20 69:6 70:16 74:19 75:22 86:18 87:2 87:14 <b>Futures</b> 60:11	<b>GE</b> 64:8 <b>gel</b> 68:5 <b>general</b> 12:16 60:10 64:13 68:6 <b>generally</b> 44:2 49:4 <b>generation</b> 29:5 73:13 <b>generous</b> 30:6 <b>generously</b> 28:14 77:15 <b>Genomics</b> 69:3 <b>gentlemen</b> 4:4 51:11 92:12 94:7 <b>geological</b> 31:8 <b>George</b> 1:17 88:16 88:18 90:6 <b>Georgia</b> 12:10 <b>geothermal</b> 13:6 <b>getting</b> 19:3 22:11 63:10 66:22 <b>give</b> 46:9 51:14 62:12 63:2 69:17 70:21 71:21 89:11 <b>given</b> 18:6 52:18 61:2 <b>giving</b> 35:13 <b>glib</b> 35:12 <b>glide</b> 13:12 <b>global</b> 15:20 17:18 40:19,20 42:21 45:13 46:19 <b>globally</b> 23:10 39:15 <b>go</b> 26:4 56:6 69:21 <b>goal</b> 21:15 38:15,18 42:10,15 48:9 58:17 93:4 <b>goals</b> 17:14 28:21 <b>goes</b> 67:10 82:9 <b>going</b> 10:16,18 13:18,19,20 16:1 24:8 27:11,17,20 27:22 33:15 34:1 34:2,12 35:1,11 35:14 49:2 51:3 51:17 52:5,14,19 53:2,9,17 56:19
<b>G</b>				
<b>G</b> 2:7 3:5 <b>gain</b> 21:2 <b>gains</b> 11:15 <b>gas</b> 3:13 11:6,9,17 17:10,21 18:22 21:16 22:10,20,22 23:3,7,9,12,13,21 25:3,11,14,17 26:2 28:20 29:6 30:1,7,21 31:5,10 32:19 33:11,17 39:12 43:9 45:15 48:11,13,21 49:2 49:10,15 50:11 55:5 63:4,9 64:4 65:20 73:4,6,11 73:12 74:6,19 77:1 79:11,15 80:4,4 83:22 84:16,17 <b>gases</b> 41:6 42:13 63:22 <b>gasoline</b> 43:12 <b>gathering</b> 68:4 78:14 83:6				

65:20,21 66:1 68:7 71:4,15 82:20 84:2 <b>good</b> 4:3 16:13 42:15,15,16 51:10 72:2 78:4 79:1 89:15 <b>gotten</b> 91:19 <b>governance</b> 87:10 93:1 <b>governing</b> 74:18 <b>government</b> 7:12 15:16 16:6 21:22 24:22 25:21 27:13 32:8,18 37:5 45:8 52:13 55:3 58:13 58:16 77:2,14 81:10,14 <b>governments</b> 30:12 <b>Government's</b> 74:7 <b>government-to-g...</b> 31:17,20 <b>government/indu...</b> 93:5 <b>graduating</b> 25:7 <b>grassroots</b> 74:13 <b>grateful</b> 7:17 27:5 77:13 <b>gratitude</b> 6:20 <b>great</b> 11:19 23:11 24:12 29:7 37:2,3 47:18 52:15,16 67:21 72:14 77:18 82:4 92:10 <b>greater</b> 9:10 10:19 35:4 43:17 47:6 <b>greenhouse</b> 11:17 17:21 18:21 21:16 23:12 29:6 41:6 42:8,13 55:5 63:22 73:12 84:17 <b>Greg</b> 90:12 <b>grid</b> 29:17 33:12 34:18 35:6 <b>ground</b> 11:14 <b>group</b> 14:1 23:5 31:3 36:12 39:6	55:19 58:21,22,22 59:10,20 60:2,4,7 60:15 61:5,14,17 64:16,19 65:9 68:2 70:22 71:22 76:5 82:9 <b>groups</b> 8:9 19:1 51:1 52:16 62:16 63:8,9,10,19 75:8 75:9 78:7 81:2 82:18 <b>grow</b> 38:10 41:8 47:5,5 <b>growing</b> 37:8 38:5 <b>growth</b> 47:8 58:4 74:1 <b>guarantee</b> 12:7,10 20:12 <b>guarantees</b> 21:6 <b>guess</b> 29:2,10 <b>guests</b> 4:9 72:7 <b>guidance</b> 55:11 71:10 <b>guide</b> 27:21 <b>guided</b> 57:2 <b>guiding</b> 55:14 74:20 <b>Gulf</b> 9:15 <b>guys</b> 89:15 <b>G-20</b> 36:9 40:11,11 42:2,14 43:6,16 47:8 <b>G-7</b> 36:8 <b>G-8</b> 36:9	<b>happened</b> 25:17 33:19 <b>happens</b> 66:4 <b>happy</b> 84:6 <b>hard</b> 46:20 52:18 55:10 <b>harmonize</b> 63:19 <b>harness</b> 20:7 <b>Harry</b> 27:14 <b>hat</b> 46:8 <b>head</b> 5:1 50:1 60:3 <b>Headquarters</b> 12:8 <b>health</b> 37:19 <b>healthy</b> 37:13 <b>hear</b> 6:1 13:7 14:15 35:22 <b>heard</b> 50:2 55:17 56:3 86:20 91:5 <b>heart</b> 24:2,4 <b>held</b> 30:19 36:4 <b>help</b> 12:17 20:16 21:18,21 22:16,20 40:10 47:9 63:19 72:10 <b>helped</b> 43:7 <b>helping</b> 19:22 <b>Henry</b> 15:7 <b>Hess</b> 90:8 <b>Hi</b> 82:13 <b>high</b> 18:5 38:16 44:8 73:2 85:21 <b>higher</b> 28:5 48:11 <b>history</b> 14:8 <b>hit</b> 65:18 <b>homes</b> 14:17 <b>Honda</b> 64:12 <b>honor</b> 94:8 <b>Honorable</b> 3:3,5 5:3,5,13 36:1 93:6 <b>honored</b> 4:9 6:2 <b>hope</b> 16:10 35:4 78:21 <b>horse</b> 14:6 <b>Hotel</b> 1:12 <b>House</b> 36:8 44:15 <b>hunch</b> 34:12 <b>Hunt</b> 88:15 89:21	<b>hydrocarbon</b> 62:16 <b>Hydrogen</b> 63:4,10	<b>I</b>	<b>Ipm</b> 82:13 84:2 <b>identification</b> 80:19 <b>identify</b> 21:18 33:6 62:8 73:10 74:16 74:18 77:18 <b>identifying</b> 73:4 <b>IEA</b> 10:14 <b>IEW</b> 12:8 <b>IHS</b> 75:17 <b>illusions</b> 35:11 <b>imagination</b> 15:5 <b>imagine</b> 42:17 46:21 77:17 <b>immediate</b> 5:2 <b>immediately</b> 29:6 <b>impact</b> 24:17 58:8 59:8 65:17,20,21 <b>impacts</b> 61:11 73:17 <b>imperfect</b> 41:16 <b>implications</b> 8:19 <b>importance</b> 8:17 <b>important</b> 12:5 14:22 16:21 17:4 31:20 32:19 42:22 43:5 45:18,22 49:3 51:21 56:4 67:19 71:14 74:18 78:11 <b>importantly</b> 26:6 <b>impossible</b> 14:16 41:10 <b>impressive</b> 7:22 <b>improve</b> 58:7 <b>improved</b> 63:1 <b>improvements</b> 20:21 <b>include</b> 36:7 41:11 74:8 75:12 76:5 77:22 79:10 86:15 86:17 <b>included</b> 55:12	<b>includes</b> 54:15 59:4 <b>including</b> 41:13 54:8 73:13 76:19 81:6,11 <b>incorporated</b> 84:11 <b>increase</b> 37:21 38:19,20 <b>increased</b> 73:10 <b>incremental</b> 20:21 <b>independent</b> 85:16 92:21 <b>independently</b> 65:16 <b>India</b> 32:13 40:16 41:3 43:11 <b>India's</b> 41:7 <b>indifferent</b> 34:21 <b>individual</b> 87:1 <b>individuals</b> 76:4 <b>Indonesia</b> 40:17 43:10 <b>industry</b> 15:16 18:20 24:8 25:2 25:21 52:13 55:3 58:13,15 64:5 66:3 73:16 77:1 83:15 84:12 89:15 92:5 <b>infinitely</b> 39:6 <b>information</b> 66:20 69:17 80:3 83:3 <b>informative</b> 4:11 <b>infrastructure</b> 33:9 33:15,18 54:2,8 54:17 58:2,21 60:2 61:4,9,16 62:18 65:7 <b>initial</b> 78:18 81:16 <b>initially</b> 81:4 <b>initiative</b> 42:18 <b>innovation</b> 24:7 39:4 <b>innovations</b> 15:12 65:18 <b>innovative</b> 20:5 24:12 61:20 62:4 <b>input</b> 16:18 55:22
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62:20 81:5 <b>inputs</b> 57:17 62:12 63:10 <b>insertion</b> 32:4 <b>inside</b> 4:15 <b>insight</b> 60:22 <b>insightful</b> 35:21 <b>insights</b> 22:21 27:9 58:11 <b>instability</b> 9:5 <b>instance</b> 33:14 <b>Institute</b> 25:17 64:15 93:20 <b>Institutional</b> 36:12 <b>institutions</b> 77:10 <b>instruction</b> 19:18 54:21 <b>integrate</b> 65:13 <b>integrated</b> 71:18 72:5 <b>integrating</b> 54:7 66:18 <b>integration</b> 15:13 29:16 65:22 67:10 72:20 76:12 79:7 79:10 80:7,13,19 81:2 <b>intent</b> 52:19 <b>Inter</b> 1:12 <b>interest</b> 8:9 9:22 25:8 42:20 47:4 47:18 <b>interested</b> 81:5 <b>interesting</b> 11:7 30:9 66:2,5 83:17 <b>interests</b> 38:12 43:20 47:3 92:20 <b>interject</b> 83:8 <b>intermittent</b> 23:14 23:17 <b>internal</b> 20:21 62:21 <b>international</b> 2:9 3:7 5:16 13:1 36:3 38:2,5 40:12 41:2 93:19 <b>internationally</b>	12:21 <b>inter-study</b> 76:13 <b>intra-study</b> 76:13 <b>introduce</b> 4:21 53:3 <b>introduction</b> 6:8 29:22 <b>Introductory</b> 3:2 <b>invaluable</b> 27:20 <b>invested</b> 20:11 25:9 <b>investment</b> 25:16 87:9 93:1 <b>investments</b> 16:4 36:11 44:8 47:21 58:13 61:8 <b>investors</b> 47:12 <b>involved</b> 25:18,19 29:18,19 68:1 82:6 92:2 <b>involving</b> 55:21 <b>in-use</b> 76:14 <b>Irishman</b> 89:8 <b>issue</b> 67:20 84:15 <b>issues</b> 12:13 14:22 15:2 16:21 27:11 29:19 46:16,19,19 49:5 75:3 80:7,8 80:13,20 82:19 83:7 84:21 <b>item</b> 92:17 <b>items</b> 92:13	90:7 <b>Johnson</b> 59:14 85:16 <b>join</b> 6:5 7:17 36:13 <b>joining</b> 50:1 <b>jointly</b> 36:5 <b>Jr</b> 1:21 3:9,21 93:12 <b>JULANDER</b> 31:4 48:6 49:12 <b>jump</b> 13:15	<b>Larry</b> 90:2 <b>Lasar</b> 89:21 <b>late</b> 34:3 66:16 <b>latest</b> 10:19 <b>lead</b> 10:4 59:12 80:1 <b>leader</b> 20:3 29:14 50:4 92:22 <b>leaders</b> 14:1 21:15 76:5 80:12,18 <b>leadership</b> 6:9 11:20 12:15 15:20 17:20,22 18:7 56:4,5 <b>leading</b> 10:1 17:18 <b>leads</b> 10:3 <b>LEAF</b> 21:6 <b>lease</b> 86:3 <b>leave</b> 4:19 26:5,11 <b>led</b> 58:19 75:11 76:3 <b>Lee</b> 12:17 <b>left</b> 5:13 <b>legal</b> 77:3 <b>legislation</b> 26:18 44:14 <b>legislative</b> 44:18 <b>lenses</b> 57:7 <b>lessen</b> 24:16 <b>letters</b> 71:6 <b>letting</b> 48:10 <b>let's</b> 65:19 <b>level</b> 33:2 59:3 67:3 73:2 76:16 91:16 <b>leveraged</b> 15:14 <b>liaison</b> 36:8 <b>lie</b> 24:2 <b>life</b> 14:12 25:20 47:12 55:5 <b>lifeblood</b> 8:15 <b>light</b> 45:4 <b>likes</b> 11:12 <b>Limited</b> 93:14 <b>limits</b> 49:12 <b>Linda</b> 1:19 3:10 53:4,5,15 68:9 69:14 70:11 72:21	74:21 82:7 85:1 <b>line</b> 33:17 74:3 <b>Lines</b> 64:8 <b>linkages</b> 17:12 <b>linked</b> 79:13 <b>liquid</b> 20:8 69:9 <b>listed</b> 74:21 <b>listen</b> 89:8 <b>listened</b> 55:14 <b>little</b> 30:5 <b>Liveris</b> 89:22 <b>lo</b> 9:14 <b>load</b> 23:18 29:17 30:1 <b>loan</b> 12:6,9 20:10 20:12,20 21:5 <b>local</b> 14:20 34:20 47:15 <b>long</b> 26:4 35:10 38:2 93:3 94:5 <b>long-term</b> 8:19 <b>look</b> 6:3 10:13,17 59:3 64:2 65:15 65:16 70:16 <b>looking</b> 11:11,16 11:22 17:5 18:8 18:13,14 62:17,21 63:5 65:10 83:13 <b>lot</b> 15:22 29:17 30:15 37:17 38:21 53:9 84:9 <b>Lou</b> 90:8 <b>low</b> 20:17 <b>lower</b> 23:12 39:12 73:11 <b>low-carbon</b> 54:11 <b>low-hanging</b> 11:13 <b>lying</b> 11:14 <b>Lynn</b> 90:7
	<b>J</b>			<b>M</b>
	<b>J</b> 2:19 <b>James</b> 2:12 3:14 <b>January</b> 65:12,17 66:19 <b>Jim</b> 5:11 6:13 26:12 59:18 70:20 71:1 72:3 75:11 82:2 84:13 90:7,8 <b>job</b> 27:2 53:5,7 91:17 <b>jobs</b> 10:9 37:10 38:17 53:11 <b>John</b> 60:1,5 67:14 89:21,22,22 90:1	<b>K</b>		
		<b>K</b>		
		<b>Kateri</b> 90:13 <b>keep</b> 35:15 47:11 57:7 <b>kept</b> 41:1 93:22 <b>key</b> 47:7 52:6 62:3 68:17 <b>kick</b> 28:16 <b>kind</b> 23:19 24:22 33:2 <b>know</b> 10:12 11:16 15:6 29:2 30:15 30:18,18 32:3 34:17 39:6,7 44:17 49:14 52:1 69:11 93:22 <b>knowledge</b> 89:9 <b>knowledgeably</b> 7:12 <b>known</b> 92:8 <b>knows</b> 7:10 8:12 <b>Koonin</b> 13:10 59:15 <b>Kristina</b> 59:14		
		<b>L</b>		
		<b>Laboratories</b> 62:11 <b>ladies</b> 4:4 51:10 92:12 94:7 <b>laid</b> 38:15 <b>Lambert</b> 85:16 <b>land</b> 54:15 63:14 <b>landmark</b> 41:21 <b>large</b> 11:22 43:16 45:11 59:7 69:8 89:3		
				<b>M</b>
				<b>M</b> 3:21 93:12 <b>machines</b> 14:11 <b>Macondo</b> 82:15 <b>macroeconomic</b> 76:13 <b>magnitude</b> 42:3

**maintain** 38:4  
**major** 37:6 41:12  
 41:14 49:13 64:6  
 75:8,8 78:7 79:9  
**Majumdar** 20:3  
**making** 8:20 43:21  
 73:9 83:4  
**Malcom** 90:13  
**manage** 22:13  
 23:18 40:11  
**managed** 26:3  
**management** 24:1  
**managing** 36:10  
 43:21 71:16  
**manner** 34:3 51:2  
**manufacture** 20:10  
 54:16  
**manufactured**  
 38:21  
**manufactures** 64:7  
**manufacturing**  
 15:13 20:13  
**Marathon** 53:6  
 55:13  
**marching** 79:1  
**market** 13:4 21:1  
 21:20 26:1 42:4  
 46:10 47:22 48:1  
 54:19 55:4  
**marketplace** 54:8  
**markets** 37:11 38:8  
 38:22 42:21 43:18  
 43:21 47:10  
**Markowsky** 72:12  
**marks** 85:21 92:18  
**Marshall** 2:14 5:20  
 6:16 76:1 86:5  
 91:12,16  
**Marvin** 75:15  
**Maryland** 12:8  
**materials** 52:4  
**Matt** 16:2 26:14,15  
 26:16,20 27:2  
 50:2 93:22 94:3  
**matter** 62:2 74:15  
**matters** 3:17 7:14  
 92:14

**Matthew** 2:21 3:22  
 93:18  
**maximize** 56:12  
**maximizing** 55:22  
**Mayborn** 93:13  
**McClendon** 75:19  
**mean** 29:7 38:12  
**means** 45:2  
**measures** 86:2  
**mechanism** 23:20  
**media** 81:14  
**medium** 42:14  
**meet** 20:3 29:21  
 80:8 85:12  
**meeting** 1:6 4:5,11  
 50:6 51:3 55:12  
 71:9 80:12 83:10  
 90:18 91:10 93:16  
 94:20  
**meetings** 80:11,18  
**meets** 66:13  
**member** 4:17,18  
 33:8 77:14 80:17  
 82:13 83:13 84:1  
 86:12 87:1 92:14  
 93:10,14,21  
**members** 4:8,9,13  
 8:3 50:17 60:8  
 66:3 68:21 77:19  
 83:9 86:16 89:1,3  
 89:20 90:6,11  
 92:10,19,19 94:5  
 94:8  
**membership** 8:1  
 59:9  
**Memorial** 3:20  
**memory** 94:8  
**mention** 80:15  
**mentioned** 19:15  
 50:3 79:6 83:4  
 88:8  
**mercury** 84:20  
**message** 41:14  
**met** 1:11 21:14  
 26:20 50:21 55:10  
 80:12 85:13,14  
 86:9

**methane** 11:10  
 25:10,15  
**Mexico** 43:13  
**Michael** 2:7 3:5  
 5:14 36:1  
**microorganisms**  
 20:6  
**middle** 66:7,17  
**midpoint** 78:12  
**Mike** 5:17 7:3,16  
 7:16 26:6 32:11  
 36:13 46:4,7 48:5  
 49:18,21 90:1  
**Mike's** 36:7  
**Miller** 89:22 90:1  
**million** 25:10,11  
**millions** 20:15  
 38:16  
**minds** 22:8 27:10  
**minimize** 73:17  
**minority** 56:9  
**minute** 16:1  
**minutes** 19:15 71:4  
 72:18  
**missed** 93:16  
**missing** 83:14  
**mission** 24:3,4  
**mitigate** 10:9  
**mix** 34:5 60:21  
 61:1 64:2  
**mixes** 63:7  
**mobility** 59:4 60:16  
 60:18  
**mode** 33:10  
**Model** 15:11  
**modeling** 74:14  
**models** 18:11  
**modest** 21:2  
**moment** 7:2 16:15  
 51:18 94:9  
**monthly** 66:14  
**months** 9:14 29:10  
 37:9 38:18 43:4  
**morning** 4:3,11 5:6  
 5:8 6:1,3 7:18  
 51:10,16 72:2,8  
 80:22 85:6,13,14

86:20 88:14,16  
**Morris** 90:1  
**Mosbacher** 3:21  
 93:6,7  
**motion** 87:19 90:22  
 94:13  
**motivate** 35:9  
**motorists** 14:14  
**Motors** 60:10  
 64:13  
**move** 13:16 33:1  
 34:17 40:2 56:8  
 60:14 65:12 66:7  
 90:17  
**moved** 12:4 94:15  
**movers** 66:4  
**moves** 41:17  
**moving** 12:20 13:5  
 59:9 65:5  
**multifaceted** 51:19  
**multiple** 73:18  
**Mulva** 90:1

---

N

---

**name** 7:15 50:2  
 69:1  
**nation** 7:1,22 27:4  
 27:11  
**national** 1:4,11,15  
 2:8,15,19 3:6 4:6  
 5:15 8:17 9:22  
 16:20 28:4 30:10  
 36:2,5,6 46:7  
 62:11 63:9 69:5  
 76:2 77:6 92:6  
**nationally** 59:4  
**nations** 30:19,19  
**nation's** 52:1  
**natural** 3:13 11:6  
 17:9 22:9,20,21  
 23:3,9 28:20 31:5  
 32:19 48:11,13,20  
 49:2,10,15 50:11  
 63:4 65:20 73:11  
 79:11 80:4  
**nature** 52:9  
**Naval** 9:2

**near** 79:3 87:2,14  
**necessarily** 47:20  
**necessary** 20:15  
 37:20 38:4 51:1  
 56:15 62:2 63:15  
 76:9  
**need** 10:1,22 15:5  
 15:14,15,15,19  
 22:17,18 24:9  
 27:8 30:1 31:19  
 33:21,22 34:4,16  
 34:17 37:18,21,22  
 38:21 39:2,3,11  
 39:14,16,18 40:1  
 40:17,19 46:22  
 53:8 56:18,20  
 64:20 68:14,15,17  
**needed** 22:3 55:18  
 58:17 61:22 67:5  
**needs** 48:17  
**never** 94:1  
**new** 7:21 8:3 9:18  
 13:1,3,21 14:11  
 15:15 16:4 18:11  
 18:11,12 21:19  
 25:22 26:17,17,18  
 33:17,17 34:5  
 37:10,13 41:18  
 54:7 56:14 57:14  
 86:3  
**newly** 76:19  
**nice** 7:9  
**nicely** 72:17  
**Nichols** 2:14 5:20  
 6:16 76:1 90:2  
**nickel** 92:3  
**night** 14:1,8 23:5  
 50:21  
**Nissan** 21:6  
**noise** 14:18  
**nomenclature**  
 10:15 63:20  
**Nominating** 1:17  
 3:18 88:14,21  
 90:16 91:1 93:10  
**nominations** 89:7  
 91:5



<p><b>non</b> 81:13  <b>nongovernment</b> 77:5  <b>nongovernmental</b> 81:6  <b>non-member</b> 92:15  <b>North</b> 3:13 17:9 22:10,19 50:11 73:9 74:6  <b>note</b> 14:7 20:18 24:20 30:4 66:12  <b>notes</b> 60:14  <b>notice</b> 64:4 71:5  <b>November</b> 78:22  <b>NOx</b> 84:19  <b>NPC</b> 1:17,18,20,21 1:23 2:12 5:12,18 6:13 7:6 8:4 19:2 19:4 22:16 51:20 57:16 68:20 77:14 85:7 88:22 89:3,7 91:1 94:21  <b>NPC/U.S</b> 27:13  <b>NRDC</b> 60:10  <b>nuances</b> 57:5  <b>nuclear</b> 11:20 12:1 13:2,4 39:16 40:4 49:7  <b>number</b> 12:6 16:9 21:12 36:20 41:6 66:3 67:21 72:14  <b>N.W</b> 1:13</p> <hr/> <p style="text-align: center;"><b>O</b></p> <p><b>OpREILLY</b> 2:19  <b>Obama</b> 9:20 36:20  <b>objection</b> 4:14  <b>objective</b> 29:21 54:22  <b>objectives</b> 18:16 47:1 58:3 72:19 73:3,22 74:3,8 76:9  <b>observer</b> 4:17  <b>obtain</b> 57:15  <b>obvious</b> 12:2 23:21 30:2</p>	<p><b>obviously</b> 11:16 14:21 23:11,16 46:15  <b>occur</b> 32:2 81:19  <b>occurred</b> 79:7  <b>occurring</b> 10:2 37:16  <b>Ocean</b> 93:20  <b>Odum</b> 75:15  <b>OECD</b> 42:6  <b>offer</b> 89:6  <b>office</b> 36:20  <b>officer</b> 92:22 93:13  <b>officers</b> 88:22  <b>official</b> 4:16 6:19  <b>oh</b> 29:9  <b>oil</b> 3:13 13:13 17:10 19:11 22:7,10,20 23:5 43:9 45:11 45:14 50:11 64:4 73:4,5 74:19 75:16 77:1 79:13 79:15 83:22  <b>okay</b> 28:11 35:18 69:15 82:12  <b>once</b> 57:3 87:13  <b>ongoing</b> 46:17  <b>open</b> 38:8,22 47:9 56:9 68:19  <b>opened</b> 21:7  <b>operate</b> 55:15  <b>operating</b> 73:15  <b>operation</b> 19:18  <b>Operations</b> 75:9 76:6  <b>opinions</b> 56:9 57:1 68:9  <b>opportunities</b> 39:18 46:11  <b>opportunity</b> 12:7 35:5 38:10 39:12  <b>Opposed</b> 88:6 91:8  <b>optimal</b> 24:16  <b>optimistic</b> 79:2  <b>optimize</b> 18:18 23:18 34:18  <b>options</b> 34:22 54:6</p>	<p>54:12 58:12 60:22  <b>order</b> 4:7 5:22 10:7 29:4 34:18 35:7 37:18 56:15 63:1 67:5  <b>Oregon</b> 29:10  <b>organization</b> 6:10 50:14 89:11 91:14 91:15  <b>organizational</b> 72:20 90:18  <b>organizations</b> 27:19 77:5,14 81:6,13,14  <b>organized</b> 62:14  <b>original</b> 74:13  <b>originally</b> 82:21  <b>Origination</b> 78:1  <b>ought</b> 89:11  <b>outcome</b> 18:16 23:1 44:22 49:16  <b>outcomes</b> 18:18  <b>output</b> 73:18  <b>outreach</b> 57:10 66:10 67:8 73:1 76:12 80:22 81:16 81:19  <b>outstanding</b> 52:12 91:17  <b>overall</b> 36:17 54:22 76:16  <b>overly</b> 30:12  <b>overnight</b> 10:12  <b>Owens</b> 59:18  <b>O'Reilly</b> 5:10 6:12 89:7</p> <hr/> <p style="text-align: center;"><b>P</b></p> <p><b>P</b> 1:13,15,21 3:9  <b>pace</b> 41:1  <b>packets</b> 71:5  <b>Palmer</b> 90:9  <b>paradigm</b> 15:5 41:18  <b>paradigms</b> 18:12  <b>paradox</b> 13:21  <b>parameters</b> 18:15</p>	<p><b>part</b> 32:14 39:17 43:16 47:7 49:3,9 49:11 65:22 66:2 68:3 69:4,8 71:12 71:13 83:1,9,21 84:3,8,14 86:3 92:5  <b>PARTICIPANT</b> 87:22 91:3 94:15 94:17  <b>participants</b> 4:22 55:21 64:3,11 74:9 76:21 77:8  <b>participate</b> 53:14 64:17 83:16  <b>participation</b> 64:6 76:17 77:12  <b>particular</b> 28:22 63:8 69:16  <b>particularly</b> 7:17 8:3 21:20 43:5 72:12  <b>parties</b> 81:5  <b>partners</b> 32:7  <b>partnership</b> 15:18 52:15  <b>partnerships</b> 15:15  <b>parts</b> 9:12 10:20  <b>passed</b> 44:15  <b>passenger</b> 59:5 60:18  <b>passengers</b> 59:5  <b>passing</b> 66:20 92:18  <b>pat</b> 37:19 90:14  <b>path</b> 12:18 13:12 16:7 24:18 33:17  <b>paths</b> 62:17  <b>pathways</b> 21:12 54:6 57:6 58:7,14 61:10  <b>Patrinos</b> 69:1,2  <b>pause</b> 7:3 19:8 28:8  <b>pay</b> 21:3  <b>paying</b> 38:17  <b>payment</b> 42:10  <b>peaceful</b> 13:2</p>	<p><b>peer</b> 61:21  <b>Pennsylvania</b> 1:12  <b>people</b> 8:7 16:18 24:13,14 25:5 27:10 30:11 31:16 32:3 52:4,12 53:10,13 56:22 67:22 68:15 91:17 92:2  <b>percent</b> 11:18 21:16 38:19,20 42:9 55:6 56:7 64:5 76:22 77:2,3 77:4,4,5,6  <b>performance</b> 61:2 62:6  <b>period</b> 34:13  <b>periodically</b> 87:12  <b>perspective</b> 27:16 28:3,4,5,19  <b>perspectives</b> 7:8  <b>pessimists</b> 14:10  <b>petroleum</b> 1:4,11 1:16 2:15,20 4:6 16:20 30:8 43:13 76:2 77:6 92:7  <b>phase</b> 78:3,13  <b>phases</b> 77:22 78:2  <b>Phil</b> 75:21  <b>Ph.D</b> 67:16  <b>pick</b> 11:15  <b>picked</b> 16:11,12  <b>piece</b> 30:3,4  <b>pipeline</b> 33:20  <b>pipelines</b> 33:18  <b>pivotal</b> 21:19  <b>places</b> 30:16  <b>plan</b> 71:18 72:5 78:19  <b>planned</b> 93:17  <b>plans</b> 50:20 51:4 53:1  <b>Plant</b> 12:10  <b>plants</b> 19:19 23:14  <b>platform</b> 69:21  <b>Platts</b> 82:14  <b>play</b> 10:1 21:8,21</p>
--	---	--	--	--

21:22 23:13,21 28:20 45:12 49:2 91:18 <b>players</b> 32:13 <b>playing</b> 33:2 <b>please</b> 4:6,18 6:5 6:17 33:7 36:13 64:18 <b>pleased</b> 5:7 19:1 26:9 51:14 71:20 85:19 89:6 <b>pleasure</b> 72:4 <b>Plug-in-Hybrid</b> 21:9 <b>podium</b> 82:2 <b>point</b> 18:14 25:8 29:8,9 49:15 51:2 55:16 64:3 66:21 68:19 74:11 76:17 78:8,17 <b>policies</b> 47:10,18 <b>policy</b> 40:22 42:16 42:16 44:2 52:22 54:6 57:3,5 58:12 60:22 73:20 75:2 75:3 76:15 81:13 82:15 83:4 <b>pollution</b> 19:11 <b>Poneman</b> 2:16 3:3 5:3,7 6:2,6,7 28:11 29:1 31:2 31:14 34:6 35:18 51:22 59:13 75:13 <b>portfolio</b> 11:12 19:16 20:19 <b>portray</b> 21:12 <b>posit</b> 24:4 <b>position</b> 36:4 40:20 <b>positioned</b> 19:5 <b>positive</b> 30:10 <b>possibilities</b> 18:12 39:20 <b>possibility</b> 30:14 <b>possible</b> 21:12 48:12 <b>potential</b> 9:4 23:3 23:11 31:6 32:5	58:12 <b>potentially</b> 16:9 33:16 <b>power</b> 23:12 29:4 29:13 39:17 64:14 73:13 <b>practices</b> 73:16 <b>Prague</b> 12:22 <b>prayer</b> 94:10 <b>predates</b> 92:6 <b>prejudging</b> 23:1 <b>premier</b> 40:12 <b>premises</b> 62:4 <b>prerogative</b> 46:6 <b>present</b> 1:14 2:5 72:4 88:17 <b>presentation</b> 67:8 82:1 <b>presentations</b> 81:10 <b>presenting</b> 81:7 <b>President</b> 2:8 3:6 5:15 7:14 9:20 10:3,6 12:11,22 27:4 36:2,19 38:14 40:10,13 44:3,12 53:5 69:2 75:15,21 <b>President's</b> 11:20 <b>presiding</b> 1:13 <b>press</b> 4:10 83:11 <b>presumably</b> 33:12 <b>prevent</b> 37:2,15 <b>price</b> 44:15 <b>prices</b> 43:9,12 <b>pride</b> 92:10 <b>primarily</b> 84:18 <b>principal</b> 76:10 <b>principles</b> 24:1 55:15 70:2 74:20 <b>prior</b> 56:13 <b>priority</b> 36:20 <b>prism</b> 46:9 52:6 <b>private</b> 16:12 32:8 37:10 <b>privileged</b> 69:4 <b>probably</b> 32:17	<b>problem</b> 34:10 48:16 <b>problems</b> 47:15 <b>procedures</b> 85:20 <b>proceedings</b> 94:13 <b>proceeds</b> 10:21 <b>process</b> 31:9 33:13 46:17 52:17 56:10 81:3 <b>processes</b> 87:10 <b>processing</b> 62:18 <b>produce</b> 9:7 19:19 <b>producer</b> 92:21 <b>producers</b> 81:11 <b>producible</b> 73:10 <b>product</b> 43:14 52:20 <b>production</b> 15:6 39:13,19 <b>products</b> 47:11 52:4 64:14 <b>professional</b> 81:12 <b>professionals</b> 51:13 76:18 77:4 <b>profiles</b> 63:3 <b>program</b> 12:7 19:22 20:11 <b>programs</b> 25:5 <b>progress</b> 3:8,12 17:7 43:5 45:1 51:8,14 70:12,22 <b>progressing</b> 26:10 72:17 <b>projections</b> 74:14 <b>projects</b> 29:11 <b>promising</b> 16:9 <b>promote</b> 22:17 <b>promoting</b> 56:3 58:4 74:2 <b>promotion</b> 17:17 <b>prompt</b> 88:12 <b>promptly</b> 87:4 <b>propose</b> 94:7 <b>prospect</b> 30:15 <b>prospects</b> 53:20 57:21 <b>prosper</b> 38:10	46:22 <b>prosperity</b> 8:16 9:11,16 10:8 17:18 24:11 <b>protecting</b> 58:3 73:22 <b>provide</b> 12:17 16:21 19:5 31:21 56:13 59:6 61:17 62:1 <b>provided</b> 38:7 50:13 72:14 77:15 <b>providence</b> 30:5 <b>providing</b> 41:21 60:22 61:1 <b>provision</b> 13:3 <b>prudent</b> 3:12 17:9 50:10 74:6 <b>public</b> 4:10 8:9 81:12 92:4,8,9 <b>publish</b> 43:19 <b>pure</b> 21:4 <b>purpose</b> 81:3 <b>pursue</b> 43:3 47:1 <b>pursuing</b> 25:9 69:13 <b>pursuit</b> 67:16 <b>push</b> 44:21 <b>put</b> 14:19 17:1 20:15 35:14 37:18 44:5,14 46:7 86:16 <b>P-R-O-C-E-E-D-...</b> 4:1	<b>quite</b> 26:2 54:3 56:19 64:16 <b>quo</b> 94:2 <b>Q&amp;A</b> 83:9
<b>R</b>				
<b>R</b> 3:22 93:18 <b>rail</b> 44:8 53:21 <b>Railroads</b> 64:9 <b>raise</b> 43:9 92:15 <b>raised</b> 59:3 <b>range</b> 46:16 81:5 <b>rapid</b> 45:9 <b>rapidity</b> 14:19 <b>rapidly</b> 47:6 <b>rarely</b> 91:21 93:15 <b>Ray</b> 88:15 89:21 <b>reactors</b> 12:2 <b>read</b> 9:1 15:6 <b>real</b> 68:8 80:19 <b>realistic</b> 18:9 48:14 49:16 <b>realities</b> 41:1 <b>reality</b> 10:21 <b>realize</b> 22:4 <b>really</b> 15:17 23:15 23:17 28:2 29:19 52:15,21 59:7 67:17,20 89:10 <b>reap</b> 31:13 <b>reason</b> 45:14 <b>reasonable</b> 45:15 <b>rebalancing</b> 47:8 <b>recall</b> 36:19 50:6 <b>recalling</b> 14:2 <b>receive</b> 88:10 <b>received</b> 48:18 72:11 85:21 <b>reception</b> 50:21 <b>recession</b> 37:2 <b>recognize</b> 10:11 39:16 <b>recognized</b> 40:14 89:16 92:16 <b>recognizes</b> 87:8 <b>recommend</b> 90:5 90:10				
<b>Q</b>				
<b>quality</b> 15:9 77:10 <b>quarter</b> 79:4 <b>question</b> 33:9 48:4 55:2 <b>questions</b> 19:9 26:5 28:8,15 33:5 46:5 68:20 82:11 83:11 88:2 <b>quickly</b> 13:17 19:7 23:20 48:12,12 71:16				

<b>recommendation</b> 78:1 81:18 86:22 88:22	<b>related</b> 41:8 83:7	<b>representing</b> 5:4	<b>responsibly</b> 11:2 22:13	<b>sad</b> 92:17
<b>recommendations</b> 12:18 73:21 74:5 75:2 81:8	<b>relations</b> 27:14 31:18	<b>represents</b> 52:21	<b>result</b> 73:11 86:1	<b>safely</b> 11:2
<b>recommended</b> 73:19	<b>relationship</b> 25:1 46:15	<b>request</b> 50:8 53:18 88:11	<b>results</b> 17:6 26:1 27:21	<b>sake</b> 9:16
<b>recommending</b> 86:10	<b>relationships</b> 15:20 31:21	<b>requested</b> 53:19	<b>Revenues</b> 17:10	<b>San</b> 33:19
<b>recommends</b> 89:20	<b>relatively</b> 31:18 37:12	<b>requests</b> 87:2	<b>review</b> 51:7 62:10 85:19 87:12	<b>sanctity</b> 32:21
<b>record</b> 4:17,20,22	<b>reliable</b> 13:3 45:14 54:10	<b>require</b> 13:18,19 13:20 27:12	<b>reviewed</b> 85:17 87:6	<b>Sandalow</b> 59:16
<b>recovery</b> 16:3 19:17 20:9 26:19 29:12 44:6 45:16 50:5	<b>reliance</b> 10:17,20 19:11	<b>required</b> 17:1 70:13	<b>reviews</b> 87:6	<b>savings</b> 86:2
<b>recruit</b> 77:19	<b>reluctant</b> 39:5	<b>requirements</b> 29:18 33:22 61:9 62:19 79:14	<b>reviewing</b> 78:18	<b>saw</b> 33:19
<b>recruiting</b> 78:4	<b>rely</b> 9:19 38:3	<b>requires</b> 16:17	<b>revolution</b> 10:3,4	<b>saying</b> 7:9 72:16 84:2
<b>reduce</b> 18:21 19:10 23:4 41:20 42:8 55:5 58:8	<b>remain</b> 9:8	<b>requiring</b> 52:10	<b>revolutionary</b> 21:3	<b>scale</b> 15:22 49:13 58:9
<b>reducing</b> 17:20 30:11 40:6 42:13 43:12	<b>remarks</b> 3:2,3,5 6:4 35:21 49:22	<b>research</b> 6:14 20:6 56:14 64:14	<b>Rex</b> 90:1	<b>scenarios</b> 21:13
<b>reduction</b> 21:16	<b>Remember</b> 70:1	<b>reservoir</b> 18:3	<b>Ribbon</b> 12:14	<b>schedule</b> 62:6
<b>reductions</b> 86:15	<b>reminded</b> 14:4	<b>reside</b> 7:19	<b>right</b> 5:2 22:11 29:8 40:7 43:15 53:11 64:21 65:3 67:22 68:12 82:10	<b>science</b> 24:2
<b>reemphasize</b> 75:1	<b>removing</b> 42:20	<b>residence</b> 17:12	<b>rights</b> 39:1	<b>Sciences</b> 69:5
<b>refine</b> 78:5	<b>rendered</b> 6:22 14:17	<b>resort</b> 38:7	<b>ring</b> 35:9	<b>scientific</b> 8:8 18:3
<b>refineries</b> 79:17,20	<b>rendering</b> 7:1	<b>resource</b> 1:18 2:13 3:14 5:12 9:3 22:2,16 30:7 57:16 70:20 75:9 79:18 83:17 86:19	<b>rising</b> 94:9	<b>scientists</b> 48:7
<b>reflect</b> 74:7	<b>renewable</b> 33:10 35:8	<b>resources</b> 3:13 8:16 8:22 9:12 11:1 22:10,20 23:8 30:8,8,15,22 31:10 32:6 35:8 47:21 50:12 55:9 60:11 63:11,16 66:19 72:14 73:9 74:7,9 75:5,21 77:16 79:16 81:21 83:22	<b>risks</b> 22:12 54:12	<b>scope</b> 55:18,20 57:18 78:6,9,10
<b>reflection</b> 94:9	<b>renewables</b> 29:22 39:15 40:5 44:7 45:9 49:8	<b>respect</b> 8:5 18:22 32:21 34:19 62:5	<b>road</b> 32:16	<b>Scowcroft</b> 12:16
<b>reflects</b> 92:4	<b>repair</b> 33:18	<b>respective</b> 81:19	<b>roads</b> 14:15,18 20:16	<b>screen</b> 77:20
<b>reform</b> 37:19 43:7 43:13	<b>repeat</b> 74:22	<b>respond</b> 87:3	<b>Robert</b> 3:21 93:6	<b>second</b> 22:3 30:3 37:3 60:13 87:21 87:22 89:14 90:4 91:2,3 94:16,17
<b>reformatting</b> 70:16	<b>repeatedly</b> 9:21	<b>response</b> 88:12	<b>Robin</b> 90:14	<b>secondly</b> 91:19
<b>refuse</b> 83:15	<b>replace</b> 14:6	<b>responsibilities</b> 36:7 40:9,19 87:9	<b>Rogers</b> 2:21 16:2 26:14 50:2 90:8	<b>Secretary</b> 2:16,22 3:4 5:3,5 6:1,6,7 6:18 9:21 11:12 12:11 16:19 19:4 21:13 26:17 27:4 27:6 28:11,21 29:1 31:2,14 34:6 35:18 50:4,8,16 51:22 53:18 57:20 71:6 72:12,13 73:21 74:5 75:13 84:14
<b>regard</b> 33:20 45:17	<b>report</b> 3:8,12,17,18 3:18,19 16:3 57:19 66:8,15 69:8 70:12,19,21 74:4 76:12 85:6 85:18,19 87:17,20 88:13,17 90:16 91:1,9	<b>responsibility</b> 25:2	<b>role</b> 10:1 21:22 25:20 28:20 45:11 73:8 91:18	<b>secure</b> 17:16 44:22 54:10
<b>regards</b> 6:20	<b>reports</b> 70:4 85:4	<b>responsible</b> 22:9,19 24:18	<b>roles</b> 25:1	
<b>regional</b> 9:5	<b>repose</b> 24:12 27:1		<b>roll</b> 4:15	
<b>regrets</b> 6:18	<b>represent</b> 77:9 92:19		<b>room</b> 4:16 7:20 16:19 27:10 31:16 71:12	
<b>regulating</b> 43:11	<b>representatives</b> 72:7 85:15		<b>roots</b> 24:8	
<b>regulation</b> 76:14			<b>round</b> 89:12	
<b>regulators</b> 8:7 25:21			<b>rule</b> 56:7	
<b>regulatory</b> 32:16 37:13 81:12			<b>rules</b> 32:15	
<b>reinvent</b> 70:2			<b>run</b> 91:13,14	
			S	

<p><b>security</b> 2:9 3:6 5:15 8:17 9:9,17 10:8 19:12 23:10 28:4 30:10 36:2,5 36:18 38:7 45:16 46:8 48:3 52:8 57:8 58:5 61:12 74:2 see 10:19 23:2 46:20 47:20 48:2 51:17 52:5 59:8 59:10 60:8 65:18 66:9 67:18 seeing 43:4 52:16 59:22 seen 9:14 38:19 Senate 44:16 sending 87:1 sends 6:20 Senior 2:21 50:3 sensitive 31:9 33:21 separate 71:9 September 1:9 50:7 71:7 series 37:4 serve 4:16 90:3,9 served 93:7,8,20 94:3 service 6:22 27:3 92:4 services 13:3 serving 36:8 93:15 session 23:6 26:8 set 12:14 16:16 18:14,15 27:15 34:22 55:21 setting 32:15 seven 76:8 shale 11:9 23:7 25:11,14 26:2 30:7,21 39:12 share 21:1 80:16 shared 18:20 67:6 93:3 Shariq 60:3 61:5 Sharp 75:21</p>	<p>Shell 75:16 shift 47:6 shifting 33:10 shifts 9:2 11:5 Short 59:19 shortly 79:4 88:11 shoulder 35:14 show 13:11 shown 6:9 shows 66:18 77:21 shy 31:3 56:10 side 15:6 32:8 sign 88:6 91:8 significant 21:1,3 32:12 41:17,18 42:10,12 48:18 52:11 silent 94:9 Simmons 3:22 93:18,19 simplistic 48:15 simultaneous 67:15 simultaneously 41:21 sinewy 8:14 sir 33:6 68:22 83:12 90:20,21 Siting 34:8 situations 61:13 Six 38:18 skills 15:20 89:9 slackened 30:20 slate 90:17 slide 76:22 77:21 slides 71:5 small 25:4,15 smart 26:22 34:22 89:8 smarter 34:18 35:6 Smith 72:13 solar 13:6 soliciting 81:4 solid 52:22 solution 18:14 41:10 49:16 solutions 18:10 solve 47:15</p>	<p>solved 40:15 Sorry 59:21 sort 7:7 32:15 37:15 67:14 68:2 68:10 soul 24:4 source 23:17 24:10 sources 9:20 13:13 19:3 23:14 30:13 South 40:17 Southern 64:15 SOx 84:18 space 38:10 spanning 10:15 spans 13:14 speak 7:12 speaking 55:16 special 7:2 72:10 specific 54:21 55:2 spectrum 54:1 speech 12:22 speed 44:8 speeds 14:13 spend 26:21,22 72:18 spending 78:4 spent 91:15 spin-up 23:21 spiral 36:22 spirit 24:13 spoil 22:7 spring 66:16 81:20 spur 43:7 SR 1:17 stabilized 37:12 staff 68:14 86:6 91:13 staffing 50:22 65:4 68:3 stakeholders 15:17 18:21 27:19 stakes 28:2 stand 89:16 standardization 61:18 standardize 61:19 standards 14:15</p>	<p>45:4,5 stars 66:12,17 start 13:16 29:7 51:5 65:1,18 66:15 72:16 started 72:10 Starting 73:2 state 8:6 77:2 81:11 stated 84:13 statement 48:16 States 1:1 24:22 34:20 statistics 10:13 status 94:1 stay 26:7 28:13 step 42:12 Stephen 60:6 61:15 stepped 26:16 steps 37:20 43:1,13 43:14 47:9 Steve 29:14 59:15 90:13 Steven 5:5 stewards 9:12 stimulate 16:8 55:3 58:16 stranglehold 30:18 strategies 18:1 73:20 strategy 36:17 streamline 33:13 Streamlining 45:7 strengthening 19:12 stretch 21:15 strong 87:11 structure 58:18 72:20 75:5 studies 8:11 9:1 10:19 17:2,13 18:9 26:9 27:8 45:20 51:19,21 55:16 56:13,15,20 56:22 70:4 72:21 74:12 78:15 79:9 80:1,3,14,16 81:4 81:8,17,20 86:19</p>	<p>91:21,22 study 3:8,12 6:14 6:15 13:22 17:8,8 18:6 19:1,6,10 21:11,18 22:3,3,6 22:15,16 23:2,5 27:21 50:18,20 51:8,16 52:5,10 53:7,14,19 54:4 55:8,9,9,11 56:1,2 57:10,16,16,19 58:18 59:1,11,15 65:3,15,22 66:22 67:11,15 69:12,16 71:18,19 72:5,15 72:17 73:3 74:4 74:11,12 75:6,6 76:10,19,21 77:9 77:16,19,22 78:6 78:14,17,18 79:3 79:18,21 80:7 81:21,22 82:7,22 84:8,11 93:11 94:4 study's 76:16 80:11 80:17 Subcommittee 1:18 1:20 3:11,15 53:4 58:20 59:13,17 60:12 66:13 67:3 71:17 75:7 76:3,8 80:10,16 subcommittees 76:11 94:5 Subgroup 62:21 subgroups 62:14 63:5,18 67:5 76:8 78:8 subject 14:8 62:1 74:15 86:21 subjects 50:22 subsidies 42:2,5,7 42:11,18 43:10,12 43:14 substitute 48:11 49:4 success 24:10 28:7</p>
---	---	--	---	--

38:11	<b>taken</b> 77:18 82:17	63:20 83:17 86:2	<b>threats</b> 46:8,10	<b>transfer</b> 31:8,11
<b>successfully</b> 16:14	<b>takes</b> 47:2	<b>terrific</b> 89:10	<b>three</b> 41:8 42:6	<b>transform</b> 14:11
<b>suggestions</b> 62:5	<b>talent</b> 78:5	<b>Tesla</b> 21:6	52:6 57:6 75:8,8	19:13
<b>suite</b> 54:10	<b>talk</b> 16:1 57:5 67:3	<b>test</b> 61:21	77:22 92:18 93:3	<b>transit</b> 44:7
<b>summarized</b> 72:5	67:8	<b>thank</b> 6:7 7:3 27:7	94:8	<b>transition</b> 10:11
<b>summary</b> 71:22	<b>talked</b> 21:15	28:6,12,15 35:16	<b>tightly</b> 91:13	54:9
<b>summer</b> 22:7 82:15	<b>talking</b> 13:22 23:6	46:2 49:17,18	<b>Tillerson</b> 90:2	<b>transitioning</b> 43:10
82:20	29:13 67:5	51:9 53:16 70:9	<b>time</b> 6:21 19:8 22:5	<b>transitions</b> 14:4
<b>Summits</b> 36:9	<b>targeted</b> 43:11 81:9	70:11 71:11 72:1	26:5 28:9 32:9	<b>transmission</b> 33:17
<b>supplies</b> 45:14	<b>tariff</b> 29:18	72:3,10 82:4	34:13 37:1,2 38:2	<b>transparency</b>
<b>supply</b> 54:2 58:2,21	<b>task</b> 24:15 55:19	84:22 85:1,10	49:12 52:11,18	32:22 43:17
60:1 61:4,7,13,16	58:20,21,22 59:20	87:18 88:7,19	53:4,7 56:17 64:4	<b>transparently</b>
61:19 62:13,15	60:2,4,7,15 61:5	90:20,21 91:12	77:18 78:4 80:19	41:20
63:6 65:6,8,13,15	61:14,16 70:18	94:11,22	82:10 83:10 92:15	<b>transport</b> 64:7,10
73:4,19 74:19	75:8,8 76:5 78:7	<b>thanking</b> 6:21	94:5,12	<b>transportation</b>
75:9 76:5 80:3	83:21	45:19	<b>timed</b> 33:14	1:21,22 3:9,10
82:22	<b>taught</b> 39:8	<b>thanks</b> 35:20 36:15	<b>timeframe</b> 81:15	5:19 15:1 17:8
<b>supplying</b> 62:17	<b>tax</b> 25:18	70:14 71:2 85:2	<b>timeline</b> 66:10	19:14 21:17 50:10
<b>support</b> 16:4 20:12	<b>taxpayers</b> 14:20	<b>thing</b> 24:5 25:16	77:20	51:7,16 52:3
38:16 44:9 63:18	<b>team</b> 55:13,13	32:18	<b>timely</b> 34:3 51:2	53:20,22 54:11
<b>supported</b> 21:5	63:11,16 65:7	<b>things</b> 23:22 25:9	80:2,13	55:6 57:21 69:10
59:13	66:19 70:7	91:11	<b>times</b> 41:9	70:17 73:14 79:12
<b>supporting</b> 19:17	<b>teams</b> 65:7 73:3	<b>think</b> 4:10 7:8,15	<b>timing</b> 72:20	79:14 86:18
20:5 59:16 61:16	<b>technical</b> 62:6	8:5,9 11:3,15 13:6	<b>today</b> 6:18 9:8 11:4	<b>travel</b> 6:19 12:8
91:17	<b>technological</b> 14:3	13:20 15:4 16:6	12:3 13:8 41:3	60:20
<b>sure</b> 9:1 10:22	54:13 55:4	16:17 18:19 20:2	51:8 87:5 93:17	<b>tremendous</b> 11:15
46:14 67:6 70:8	<b>technologies</b> 15:19	21:11 22:14,18	<b>today's</b> 4:20	15:8 18:3 23:2
<b>surplus</b> 86:1	16:5,9 25:22	23:9 24:5,21,21	<b>toes</b> 94:1	24:10 27:3 35:5
<b>sustainable</b> 18:1	73:16	25:19,19 27:13,20	<b>toiled</b> 69:6	<b>trends</b> 68:7
<b>sustained</b> 13:19	<b>technology</b> 7:21	29:2,20,20 30:9	<b>token</b> 15:4	<b>Tributes</b> 3:20
<b>sustaining</b> 74:1	15:21 18:4 20:10	30:17,20 31:15,19	<b>told</b> 7:5	<b>trillion</b> 25:13,14
<b>swiftly</b> 34:17	24:2,13 31:7,9	32:19 35:13 46:5	<b>tools</b> 65:10	<b>trouble</b> 59:21
<b>Synthetic</b> 69:3	53:6 54:3 58:2,7	46:8 47:17 48:1	<b>top</b> 53:13 66:12	<b>truck</b> 53:21
<b>system</b> 34:2	58:22 60:6,7 61:7	51:17,19,20,22	77:21 80:6	<b>Trucking</b> 64:10
<b>systems</b> 34:4 61:2	61:8,10,14,21	52:14 53:8 61:22	<b>topic</b> 80:21	<b>trucks</b> 45:4
	62:9,19 63:1 65:7	67:18 68:9,14	<b>total</b> 42:4 77:8	<b>true</b> 24:5 90:8
	66:4 67:14 73:9	69:18 89:11 92:9	<b>touch</b> 64:18 72:22	<b>truly</b> 17:3
<b>T</b>	<b>tell</b> 32:9 48:19	<b>thinking</b> 7:13	80:21	<b>Truman</b> 27:14
<b>T</b> 2:12 3:14 15:11	55:17	13:20	<b>touched</b> 72:21	<b>truth</b> 8:13
<b>table</b> 5:1 7:10	<b>ten</b> 28:18 42:9	<b>thinks</b> 46:12	<b>tough</b> 34:8	<b>Truths</b> 55:10
40:18 50:1 67:22	<b>Tennessee</b> 21:8	<b>third</b> 30:4	<b>Toyota</b> 64:13	<b>try</b> 12:21 18:17
75:4	<b>tensions</b> 9:5	<b>thought</b> 7:11 16:18	<b>trade</b> 39:1 47:16	36:21 37:2,14
<b>tailpipe</b> 45:4	<b>term</b> 42:14	31:3 55:20 84:2	<b>trade-offs</b> 54:16	43:17 45:1 71:3
<b>take</b> 7:2 20:19	<b>terms</b> 7:14 11:8,16	<b>thoughtful</b> 29:14	<b>traditional</b> 23:8	<b>trying</b> 13:15 16:8
33:15 39:11 40:19	15:12 17:15,17,20	<b>thoughts</b> 31:11	<b>tragic</b> 9:14	28:15 34:16 62:12
41:5 42:12 46:5	18:16 22:18 24:20	46:10	<b>franches</b> 31:15	<b>TUESDAY</b> 1:8
47:9 55:3 58:14	31:17 32:21 63:11	<b>threat</b> 47:20	<b>transaction</b> 21:10	<b>turn</b> 13:18 16:11
58:16 92:10				

67:12 71:15 82:2 85:4 <b>turning</b> 37:3 <b>twice</b> 85:13 <b>two</b> 16:21 17:2 18:9 25:4 26:21,22 29:9 50:9,18 51:3 63:17 66:17 71:6 79:8 80:1,17 81:20 89:1 91:11 91:21,22 <b>types</b> 61:9 <b>typical</b> 13:12 <b>typically</b> 13:14	<b>update</b> 51:15 <b>updates</b> 51:3 85:3 <b>UPS</b> 64:12 <b>use</b> 9:7,18 11:1 20:6 23:18 44:22 54:15 56:12 63:14 66:21 73:11 74:14 79:11 <b>users</b> 64:7 77:4 <b>utilities</b> 84:7 <b>U.S.</b> 7:11 21:17 38:3 38:6,17 39:13 41:9 46:11,12,21 47:11,12 55:6 58:3 70:16	<b>voice</b> 40:18 <b>Volkswagen</b> 64:13 <b>volumes</b> 58:10 61:10 <b>Vote</b> 3:18,19 <b>voted</b> 50:7 <b>vouchers</b> 43:11	<b>Westport</b> 60:9 <b>we'll</b> 34:3 60:20,22 61:6 63:13 65:13 65:18 66:22 68:11 69:19 73:10,15 83:2,6 84:16 85:4 87:14 <b>we're</b> 10:16 11:5 12:20 13:14,15 16:8,22 18:13,14 27:5,22 29:11,21 33:10,11 34:16 35:1,13 38:17 43:4 44:9,11 51:3 52:16 53:12 56:19 59:2,13 63:21 64:1,3,16 66:10 68:7 69:21 71:20 78:3,16 80:6 84:12 88:8 <b>we've</b> 8:6,7 10:15 17:6 29:14 37:13 37:17 38:19 51:22 52:12 65:4 67:20 68:15 72:10 85:13 <b>wheel</b> 35:15 70:3 <b>White</b> 36:8 <b>widen</b> 7:7 <b>widened</b> 8:6 <b>wider</b> 11:11 <b>widespread</b> 35:7 <b>Willard</b> 1:12 <b>willing</b> 76:18 <b>win</b> 71:3 <b>wind</b> 13:6 23:15,17 29:16 <b>window</b> 70:15 91:20 <b>wisdom</b> 27:9 <b>wisely</b> 91:15 <b>wish</b> 27:1 28:7 34:7 92:15 <b>witnessed</b> 11:8 <b>witnessing</b> 11:5 <b>Woertz</b> 90:14 <b>wood</b> 13:13 <b>word</b> 19:7 22:2	26:15 42:1 44:2 <b>words</b> 36:16 48:13 <b>work</b> 9:17 15:9 22:5 28:7 35:1 43:21 45:20 46:18 47:14 49:10 51:1 52:18 55:18,19 70:15 71:14 74:13 82:8 91:20 92:10 <b>worked</b> 16:14 32:11 <b>workers</b> 15:9 <b>working</b> 19:13 35:3 35:15 44:9 45:21 65:8 80:11 <b>works</b> 48:3 <b>world</b> 8:15 10:5,20 12:3 30:7 31:5,12 37:1,7,14 38:9 39:13 40:15 42:19 43:22 44:10 47:14 47:19 48:13 <b>worse</b> 9:6 <b>worst</b> 14:12 <b>wouldn't</b> 69:20 <b>Wright</b> 29:15 <b>writing</b> 66:15 76:12
<b>U</b>	<b>V</b>	<b>W</b>	<b>Y</b>	
<b>umbrella</b> 38:7 <b>unable</b> 88:15 <b>unanimous</b> 56:5 <b>unanimously</b> 50:8 <b>unanticipated</b> 14:2 <b>unavailable</b> 5:6 <b>unconditional</b> 31:10 <b>unconventional</b> 73:5 79:15 <b>underlying</b> 74:16 78:6 <b>underpin</b> 73:19 <b>understand</b> 22:12 45:11 56:22 66:3 74:17 84:1 <b>understanding</b> 22:17 35:4 <b>undertaken</b> 51:20 <b>undertaking</b> 27:7 <b>underway</b> 72:17 <b>undue</b> 14:19 <b>unfortunately</b> 26:7 <b>uniform</b> 64:1 <b>uninhabitable</b> 14:17 <b>unique</b> 32:18 36:4 <b>uniquely</b> 19:5 <b>United</b> 1:1 24:22 34:20 64:8 <b>upcoming</b> 10:2	<b>valid</b> 70:5 <b>value</b> 27:17 68:10 <b>variables</b> 18:15 <b>variety</b> 16:4 <b>various</b> 61:13 <b>various</b> 61:13 78:15 93:11 94:4 <b>vast</b> 8:1 <b>vehicle</b> 20:10 60:21 61:1,19 62:15,20 63:6,18 <b>vehicles</b> 20:14,15 21:4,20 54:1,7 59:6 65:19 80:4,5 <b>versus</b> 84:16 <b>vertical</b> 15:13 <b>viable</b> 11:21 16:11 18:9 <b>Vice</b> 2:19 5:9 6:13 53:5 59:18 60:6 67:14 93:9 <b>view</b> 15:17 56:14 <b>viewed</b> 52:20 <b>views</b> 73:7 <b>violating</b> 14:14 <b>virtue</b> 27:18 <b>vis</b> 25:2,2 <b>vision</b> 18:20 44:16 <b>visiting</b> 29:11 <b>vital</b> 8:17 <b>Vogel</b> 12:10	<b>wanted</b> 8:2 <b>Ward</b> 90:8 <b>warm</b> 8:3 <b>Washington</b> 1:13 35:10 <b>wasn't</b> 25:6,16 <b>watching</b> 48:2 86:6 <b>water</b> 54:15 63:14 82:21 <b>waterborne</b> 53:22 <b>Watson</b> 60:1 <b>way</b> 7:9 24:21 29:20 33:11 38:18 44:19 45:7 48:8 67:19 <b>ways</b> 20:6 23:9 29:3 34:16 40:5 47:1 <b>weekly</b> 67:4 80:8 <b>weeks</b> 7:5 <b>weigh</b> 83:6 <b>welcome</b> 4:8 8:3 <b>welcomes</b> 42:17 <b>welcoming</b> 6:5 36:13 <b>well-being</b> 52:2 <b>weren't</b> 17:3 <b>West</b> 90:14	<b>year</b> 25:13 38:14 50:7 54:20 66:1,8 66:16 69:8,13 86:7,10,16 88:9 91:22 <b>years</b> 12:14 15:7 28:1,18 38:16 42:6 43:3 69:7 93:8,15,22 <b>Yergin</b> 24:9 75:17 90:2 <b>Yosufzai</b> 60:3 61:6	
			<b>P</b>	
			<b>p</b> 82:14	
			<b>S</b>	
			<b>\$137</b> 25:11	

\$210,000 85:22	3 3:2		
\$30 25:9	30 85:14 93:8		
\$300 42:5	30th 71:8		
\$36.7 26:19	31 64:5		
\$4,587,000 86:11	36 3:5		
\$5 15:8	391 76:18		
\$5.9 20:20			
\$8 12:9 20:11	4		
\$80 44:5	40 11:18 76:4		
	400 92:2		
1	42 76:22		
1 12:6 78:3			
1.75 25:14	5		
10:31 95:3	50 12:2 21:15 48:8		
100 77:9	55:6		
120th 1:6 4:5 94:20	50/50 42:10 58:17		
13 77:2,4	500 64:20 92:2		
14 1:9 93:22	51 3:9		
1401 1:12			
16th 71:7	6		
17 77:1	6 3:4 77:5		
18 38:19			
19 19:18	7		
1946 27:15 92:7	71 3:13		
1978 25:4,10,11			
1982 25:10	8		
1992 25:12	8 77:4		
	80 56:7		
2	80/20 56:7		
2 25:13 69:6 78:13	85 3:17		
200 53:10	88 3:18,18		
2009 13:1 71:7			
85:18,22 86:7	9		
2010 1:9 71:8 78:22	9:00 1:13		
81:16 86:9,11	9:05 4:2		
2011 79:4 81:21,22	91 3:19		
2020 41:7 42:8	92 3:20		
2035 53:21 57:21	95 3:23		
60:18 73:6			
2050 21:17 42:9			
53:21 55:7 57:22			
60:19 63:13 73:7			
22 38:20			
224 64:3			
225 51:12			
25 93:15			
3			

CERTIFICATE

This is to certify that the foregoing transcript  
in the matter of: National Petroleum Council

Before: Claiborne P. Deming, Chair

Date: September 14, 2010

Place: Washington, D.C.

represents the full and complete proceedings of the  
aforementioned matter, as reported and reduced to  
typewriting.

  
\_\_\_\_\_  
Jim Cordes