

WOODS, DANIELSON, AND HARRIS NOMINATIONS

HEARING
BEFORE THE
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
ONE HUNDRED TWELFTH CONGRESS
FIRST SESSION

ON

THE NOMINATIONS OF GREGORY H. WOODS, TO BE GENERAL COUNSEL, DEPARTMENT OF ENERGY, DAVID T. DANIELSON, TO BE AN ASSISTANT SECRETARY OF ENERGY (ENERGY EFFICIENCY AND RENEWABLE ENERGY), DEPARTMENT OF ENERGY, AND LADORIS G. HARRIS, TO BE DIRECTOR FOR THE OFFICE OF MINORITY ECONOMIC IMPACT, DEPARTMENT OF ENERGY

SEPTEMBER 15, 2011



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WOODS, DANIELSON, AND HARRIS NOMINATIONS

THURSDAY, SEPTEMBER 15, 2011

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 9:35 a.m. in room SD-366, Dirksen Senate Office Building, Hon. Jeff Bingaman, chairman, presiding.

OPENING STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM NEW MEXICO

The CHAIRMAN. OK. Why don't we get started? The committee meets this morning to consider 3 nominations.

Before I start a very short statement describing those, let me just make a short statement about the passing yesterday of former Senator Malcolm Wallop of Wyoming, who served with great distinction on this committee. He served in the Senate for 18 years from 1977 through 1995. He was a member of this Energy and Natural Resources Committee for all but his first 2 years in the Senate. He chaired the Subcommittee on Public Lands and Reserved Water for three terms and served as the ranking member of the full committee during his last 2 terms.

As ranking member, he worked closely and constructively with Chairman Bennett Johnston to forge the landmark Energy Policy Act of 1992. In addition to his work on this committee, Senator Wallop took a very active role in defense and foreign policy and trade and tax matters. I was fortunate to serve with him on the Armed Services Committee as well.

He is survived by his wife, Isabel, and 4 children by a previous marriage. We extend our condolences to all of them.

I didn't know if Senator Murkowski wanted to make any statement about Senator Wallop before I go ahead with the regular hearing.

Senator MURKOWSKI. Thank you, Mr. Chairman. I did not have the opportunity to really come to know Senator Wallop in a working capacity. He had worked for many years with my father when they were both members of this Energy Committee.

I can recall some of the stories that my father had shared. Apparently he had a pretty good sense of humor and was an individual that not only had the respect of his colleagues, but who also shared his love for the land in ways that worked to make a difference for our country.

He will be missed. I share your words in conveying our condolences to the family.

The CHAIRMAN. Thank you.

As I indicated the committee meets this morning to consider 3 nominations for positions in the Department of Energy.

Gregory Woods, to be the General Counsel.

David Danielson, to be the Assistant Secretary for Energy Efficiency and Renewable Energy.

LaDoris Harris, to be the Director of the Office of Minority Economic Impact.

Mr. Woods is currently the Deputy General Counsel for the Department of Transportation. He was previously a partner in the law firm of Debevoise and Plimpton in New York. He was a trial attorney in the Justice Department prior to that.

Dr. Danielson is currently a Program Director in the Department of Energy's Advanced Research Projects Agency, known as ARPA-E. Before that he was a Clean Energy Venture Capitalist, specializing in financing of solar, wind, biofuels, carbon capture and sequestration and advanced lighting projects. He holds a Doctorate in Materials Science and Engineering from MIT.

Ms. Harris is currently the President and Chief Executive Officer of Jabo Industries. It's a minority, woman owned, management consulting firm specializing in the Energy Information Technology and Health Care Industries. She was previously an Executive with General Electric Company and held executive and management positions at ABB and at Westinghouse before that.

All 3 nominees have demonstrated their ability and qualifications for the positions to which the President has nominated them by their professional training and experience. I strongly support all 3 nominees. I'm delighted to welcome them to the committee this morning.

Let me defer to Senator Murkowski for her statement.

**STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR
FROM ALASKA**

Senator MURKOWSKI. Thank you, Mr. Chairman. Welcome to each of you. Mr. Woods, Dr. Danielson, Ms. Harris, I appreciate you being here and your willingness to serve.

Dr. Danielson, if confirmed as Assistant Secretary for Energy and Efficiency and Renewable Energy, your task will be to find the path for the eventual and inevitable transition from fossil fuels to that next generation of energy technologies. One of the issues that we continue to struggle with and which is particularly acute in these difficult economic times is what role the government really plays in this transition. Earlier this week we had a kind of a round table with a group of businessmen from the Bipartisan Policy Council. Mr. Bill Gates was part of that group.

We discussed the importance of the government role in basic R and D. While the availability of funding is certainly more of an issue now than ever, I am one of those who believes that there is a role for government in research and development. So the real question is, what happens next?

We hear a lot about the valley of death for investment. But it appears that there is more than just one valley of death out there.

The real question is whether or not it's the government's responsibility to get businesses through each of them.

In EPACT 2005 the Loan Guarantee Program was established to attempt to deal with one valley of death toward commercialization of new technologies. But it's unfortunate that the original intent of the Loan Guarantee was subverted by the Stimulus bill. The original Section 1702 and 1703 Loan Guarantee process has requirements to prevent what we're seeing in the Solyndra case, not least of which was the payment of the subsidy cost by the borrower.

However in the Stimulus bill, Section 1705 was added along with a large appropriation for Federal payment of the credit subsidy for the renewable energy projects, setting the stage for political convenience to trump wise, financial decisions. There's also some evidence that the requirements of Section 1705 were simply ignored in the Solyndra case. This possibility is one reason behind my support for the Clean Energy Development Bank idea. The goal was to set up an independent entity removing the Loan Guarantee from the political process and hopefully ensure that the financial experts have the final say.

I think the Solyndra case demonstrates that our problems can't be solved by just pouring money on the problems. All of the Loan Guarantees and subsidies in the world will eventually be for naught if the technology can't stand on its own 2 feet in the marketplace. That means competing on cost which requires lower energy costs. Our economy needs abundant, inexpensive energy to thrive.

So when we're talking about green energy and creating green jobs, it's important to note that those jobs could be counter-productive for the overall economy if it results in increased energy costs. I think all of us can agree that we face a range of difficult energy related challenges and the appointees from within our executive agencies will be expected to provide the leadership to help meet them. What we need right now are smart people who will work with the private sector to find the right policies, set the right conditions that will ensure our Nation's continued prosperity.

I look forward to hearing from each of you today regarding how we can exactly do that. I welcome you to the committee. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

The rules of our committee which apply to all nominees require that nominees be sworn in in connection with their testimony. I'd ask each of you to stand and raise your right hand if you would please.

Do you solemnly swear that the testimony you're about to give to the Senate Committee on Energy and Natural Resources shall be the truth, the whole truth and nothing but the truth?

Mr. WOODS. I do.

Mr. DANIELSON. I do.

Ms. HARRIS. I do.

The CHAIRMAN. Please be seated.

Before you begin your statements I'll ask 3 questions and address them to each nominee before the committee today.

The first question is will you be available to appear before this committee and other congressional committees to represent Departmental positions and respond to issues of concern to the Congress?

Yes, Mr. Woods.

Mr. WOODS. I will, sir.

The CHAIRMAN. Dr. Danielson.

Mr. DANIELSON. I will.

The CHAIRMAN. Ms. Harris.

Ms. HARRIS. I will.

The CHAIRMAN. Thank you.

Second question. Are you aware of any personal holdings, investments or interests that could constitute a conflict of interest or create the appearance of such a conflict should you be confirmed and assume the office to which you have been nominated by the President?

Mr. Woods.

Mr. WOODS. Mr. Chairman, my investments, personal holdings and other interests have been reviewed both by myself and the appropriate ethics counselors within the Federal Government. I've taken appropriate action to avoid any conflicts of interest. There are no conflicts of interest or appearances thereof, to my knowledge.

The CHAIRMAN. Thank you.

Dr. Danielson.

Mr. DANIELSON. My investments, personal holdings and other interests have been reviewed both by myself and the appropriate ethics counselors within the Federal Government. I have taken appropriate action to avoid any conflicts of interest. There are no conflicts of interest or appearances thereof, to my knowledge.

The CHAIRMAN. Thank you.

Ms. Harris.

Ms. HARRIS. My investments, personal holdings and other interests have been reviewed both by myself and the appropriate ethics counselors within the Federal Government. I have taken appropriate action to avoid any conflicts of interest. There are no interests—of conflicts of interest or appearance thereof, to my knowledge. Thank you.

The CHAIRMAN. Thank you very much.

The final question we ask all nominees is are you involved or do you have any assets that are held in a blind trust?

Mr. Woods.

Mr. WOODS. No, sir.

The CHAIRMAN. Dr. Danielson.

Mr. DANIELSON. No, I do not.

The CHAIRMAN. Ms. Harris.

Ms. HARRIS. No, I do not.

The CHAIRMAN. Thank you all. At this point in our normal procedure we invite nominees to introduce any family members that are with them, if there are family members present today.

Mr. Woods, did you have anybody you wanted to introduce?

Mr. WOODS. Yes, Mr. Chairman. Thank you very much. I'm lucky that my wife is here, Mary, together with my children Jamie and Ainsley Mae and my mother, Kathy.

The CHAIRMAN. We welcome them. Glad to have them here.

Dr. Danielson, did you have anyone you wanted to introduce?

Mr. DANIELSON. Yes. I'm lucky to have my parents, Paul and Margaret Danielson and my girlfriend, Margaret Cantrell. My parents flew in from California last night. I wanted to thank them for all their love and support.

The CHAIRMAN. Thanks. We appreciate them being here and welcome them.

Ms. Harris, did you have anyone you want to introduce?

Ms. HARRIS. Yes, Chairman. First I would like to say I have a host of family and friends. I have with me my sons, Garry and William Harris, my sister and business partner, Lillie Reed, my assistant Martha Crawford, my cousin Sharon. I have my Goddaughter, Yonni is here. Oh, boy, a whole host of others here. Please stand up.

[Laughter.]

The CHAIRMAN. Good. We should have gotten a bigger hearing room.

Ms. HARRIS. Yes.

[Laughter.]

The CHAIRMAN. We appreciate them being here. Welcome them all.

At this point we would go ahead and defer to the nominees to make their opening statements.

Mr. Woods, why don't you go ahead?

**TESTIMONY OF GREGORY H. WOODS, NOMINEE TO BE
GENERAL COUNSEL**

Mr. WOODS. Thank you, Mr. Chairman.

Chairman Bingaman, Ranking Member Murkowski, distinguished members of the committee, thank you very much for the opportunity to appear before you here today.

First, I'd like to thank President Obama for nominating me to serve as General Counsel of the Department of Energy. I intend to work hard to justify the confidence that he's placed in me.

I wanted to also thank Secretary Chu for asking me to serve as his Counsel. I look forward to the opportunity to advise him and his team as they develop and implement policies to address our Nation's energy needs.

I'd also like to thank Secretary LaHood and my colleagues at the Department of Transportation, without whose tutelage and support I couldn't have developed the skills that I have to bring to further serve at the Department of Energy.

Finally, I'd like to thank my wife, Mary, my children Ainsley Mae and Jaime and my family and friends both here and afar for their love and support.

Mr. Chairman, Ranking Member Murkowski, as you both know, the General Counsel is the principle legal officer of the Department responsible for ensuring that the Department operates in full compliance with the law. The General Counsel provides legal advice and counsel to the Secretary and his colleagues, represents the Department as counsel before other Federal Governmental agencies and works with the Department of Justice to represent the agency before the courts. Thankfully for me, the General Counsel does not do all of this on his own. The Department has a dedicated and en-

ergetic staff of career attorneys and I look forward to working with that team and drawing on its deep expertise.

Mr. Chairman, ranking member, this nomination is a great honor for me. It's been a journey to get here. My wife and I are raising our children in Washington Heights in New York City, but I was raised alone by my mother as a single parent in Philadelphia. My family's roots are in West Virginia.

Both my parents were born in Morgantown. My grandfather and great grandfather were—both mined coal for a living. My mother worked several jobs at a time while I was growing up to provide the education that made it possible for me to be here today. I'd like to give a special thanks to her for all that she's done for me.

Sir, after graduating from Williams College in Massachusetts I was fortunate to have the opportunity to attend Yale Law School. Following my graduation from law school I joined the United States Department of Justice as a trial attorney, attracted by the prospect of serving the United States. At the Justice Department I prosecuted fraud cases against government contractors under the False Claims Act. That was invaluable preparation.

I've had the personal experience of litigating on behalf of the United States. I learned that intimately government contracting process and how it can be abused. I left the Department of Justice in 1998 to join Debevoise and Plimpton, a leading New York based law firm.

After 6 years as an Associate in the firm's Corporate Department I was promoted to become an Equity Partner of the firm. My practice there was varied, but it focused on financing complex acquisitions and joint venture arrangements. In each of the last 3 years of my 5 years at their firm as a partner I was recognized by Chambers as one of the leading lawyers in New York in banking and finance.

In 2009 I left my firm to become Deputy General Counsel at the Department of Transportation. There I helped to oversee and manage the legal and regulatory affairs of the Cabinet Department with over 55,000 employees and 500 lawyers. In my work at DOT over the last two plus years, I've dealt with a broad range of issues that regularly confront lawyers in government service and I've learned from valued colleagues how to cultivate and develop a strong legal team. I'll draw on that experience to manage the legal affairs of the Department of Energy.

I've learned from good experience also at the Department of Transportation how important it is for government agencies to have open and honest lines of communication with the Congress. If confirmed I hope to have many opportunities to work with the members of this committee and your staff as we go forward.

Mr. Chairman, Ranking Member Murkowski, I hope that you and this committee will conclude that I have the qualifications required for the position for which I've been nominated. I'll come to the Department with a wide range of high level, legal experience, management skills, dedication and judgment honed during my years of practice in both government and the private sector.

Thank you and the committee once again, for the opportunity to appear before you. I'd be pleased to answer any questions that you may have. Thank you.

[The prepared statement of Mr. Woods follows:]

PREPARED STATEMENT OF GREGORY H. WOODS, NOMINEE TO BE GENERAL COUNSEL

Chairman Bingaman, Ranking Member Murkowski, distinguished Members of the Committee, thank you very much for the opportunity to appear before you today.

First, I would like to thank President Obama for nominating me to serve as General Counsel of the U.S. Department of Energy. I intend to work hard to justify the confidence that he has placed in me.

I also want to thank Secretary Chu for asking me to serve as his counsel. I look forward to the opportunity to advise him and his team as they develop and implement policies to address our Nation's energy needs. I would also like to thank Secretary LaHood and my colleagues at the Department of Transportation, without whose tutelage and support I could not have developed the skills that I hope to bring to further service at the Department of Energy.

Finally, I would like to thank my wife, Mary, my children, Ainsley Mae and Jamie, and my family and friends, both present and afar, for their love and support.

Mr. Chairman, as you know, the General Counsel is the principal legal officer of the Department, responsible for ensuring that the Department operates in full compliance with the law. The General Counsel provides legal advice and counsel to the Secretary and his colleagues, represents the Department as counsel before other Federal governmental agencies, and works with the Department of Justice to represent the agency before the courts. The General Counsel does not do all of this on his own: the Department has a dedicated, energetic staff of career attorneys. I look forward to working with that team and drawing on its deep expertise.

This nomination is a great honor for me; it has been a journey for me to get here. My wife and I are raising our children together in the Washington Heights neighborhood of New York City, but I was raised alone by my mother in Philadelphia, and my family's roots are in West Virginia. Both of my parents were born in Morgantown; my grandfather and great-grandfather mined coal for a living. My mother worked several jobs at a time when I was growing up to provide the education that made it possible for me to be here today.

After graduating from Williams College in Massachusetts, I was fortunate to have the opportunity to attend Yale Law School. Following my graduation from law school, I joined the United States Department of Justice as a Trial Attorney, attracted by the prospect of serving the United States. At the Justice Department, I prosecuted fraud cases against government contractors under the False Claims Act. That was invaluable preparation—I have had the personal experience of litigating on behalf of the United States, and I learned intimately the government contracting process and how it can be abused.

I left the Department of Justice in 1998 to join Debevoise & Plimpton, a leading New York-based law firm. After six years as an associate in the firm's corporate department, I was promoted to become an equity partner of the firm. My practice was varied, but focused on financing complex acquisitions and joint-venture arrangements. In each of the last three years of my five years at the firm as a partner, I was recognized by Chambers USA as one of the leading lawyers in New York for banking and finance.

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I have learned from good experience at the Department of Transportation how important it is for government agencies to have open and honest lines of communication with the Congress. If confirmed, I hope to have many opportunities to work closely with the Members of this Committee and your staff.

Mr. Chairman, I hope that you and this Committee will conclude that I have the qualifications required for the position for which I have been nominated. I will come to the Department with a wide range of high-level legal experience, management skills, dedication, and judgment honed during my years of practice in government service and the private sector.

Thank you and the Committee once again for this opportunity to appear before you. I would be pleased to answer any questions you may have.

The CHAIRMAN. Thank you very much. Let me just note for Senator Manchin's information: Mr. Woods just told us that he's a native of West Virginia. So maybe you knew that.

Senator MANCHIN. That's why I'm here.

The CHAIRMAN. I understand.

[Laughter.]

The CHAIRMAN. I knew there had to be an explanation.

[Laughter.]

The CHAIRMAN. Dr. Danielson, why don't you go ahead?

TESTIMONY OF DAVID T. DANIELSON, TO BE ASSISTANT SECRETARY OF ENERGY (ENERGY EFFICIENCY AND RENEWABLE ENERGY)

Mr. DANIELSON. Thank you, Chairman.

Chairman Bingaman, Ranking Member Murkowski and distinguished members of the committee, it is a distinct honor and privilege to appear before you today as President Obama's and Secretary Chu's nominee for Assistant Secretary for Energy Efficiency and Renewable Energy. I wish to thank Secretary Chu and President Obama for their support and confidence in recommending and nominating me.

I also want to thank the committee for considering my nomination.

I was born and raised in a middle class family in Salinas, California where I attended public schools and developed a lifelong love of math and science. My love for math and science led me to pursue an undergraduate degree in Materials Science and Engineering at the University of California Berkeley. During my studies there I became keenly aware of energy's critical role in America's national and economic security and the profound opportunity that exists for our Nation to leverage its world class, technical, entrepreneurial and industrial talent to solve these challenges.

Fully committed to meeting these challenges I went on to pursue a PhD at MIT to develop cutting edge, new energy technologies. While at MIT I conducted research in solar power, taught courses on advanced energy technologies and authored more than 20 scientific articles. In addition to my research, I founded the MIT Energy Club, a first of a kind, campus organization devoted to building a multidisciplinary MIT energy community through an outcome oriented, fact based, technology agnostic approach to solving our Nation's energy challenges. The club became the largest, most active organization on campus, helped spawn the creation of MIT's Energy Initiative, a 325 million dollar energy research initiative that engages more than 270 MIT faculty researchers and catalyzed the creation of a network of more than 45 sister organizations at top universities around the country with more than 10,000 members.

After my time at MIT I joined the private sector as an energy venture capitalist, co founding the Clean Energy Investment Practice at General Catalyst Partners, a Boston based venture capital firm with \$1.7 billion under management. As a venture capitalist I helped create and grow American energy startups in various advanced energy technology areas including advanced biofuels, natural gas, solar power, wind power, carbon capture and storage and

efficient lighting. While in venture capital I also co founded the New England Clean Energy Council, a non-profit organization that built a strong regional clean energy community and serves as a platform for effective public/private partnerships.

Two and a half years ago, I left the private sector to help establish the Department of Energy's Advanced Research Projects Agency Energy, ARPA-E, as its first employee. At ARPA-E I played a critical role in establishing and building the core foundations of organizational, cultural and operational excellence for this new agency. I'm proud to say that ARPA-E is already yielding some very exciting, early results.

As ARPA-E's first Program Director I currently manage \$100 million in investments and 24 high risk, high impact R and D projects in next generation batteries for plug in electric vehicles, grid scale storage, next generation solar wafers, geothermal drilling, rare Earth magnets and waste heat capturing thermal electric devices. With continued developments for it, these ARPA-E projects could lead to the creation of whole new energy technology industries and American leadership in those industries. All the things that make American unique put us in an incredibly strong position to create and lead the energy industries of the future. We have the world's best and most creative researchers in our universities and national labs and our entrepreneurial ecosystem is second to none.

I believe that my technical and business background in a wide variety of clean energy fields has provided me with the experience and expertise necessary to lead the Office of Energy Efficiency and Renewable Energy. EERE has played a pivotal role in driving U.S. leadership to date in the emerging energy efficiency and renewable energy sectors. Citing just one example, EERE support has been critical to the development of the batteries at the heart of today's hybrid electric vehicles in addition to the batteries in both current and next generation plug in hybrid electric vehicles. EERE's mission to provide American companies with a clean energy technology advantage has only become more urgent as countries like China have begun to dramatically scale up their investments in clean energy.

If confirmed I look forward to applying my full energy commitment to advancing America's strong and growing energy innovation ecosystem. I pledge to work closely with this committee to lower our dependence on foreign oil, decrease energy costs for American families and businesses and reinvigorate the Nation's economy all while providing a better environment for our children and grandchildren.

Mr. Chairman, Ranking Member Murkowski and members of the committee, I thank you again for considering my nomination. If confirmed I look forward to working with this committee and others in Congress as we pursue the common goal of securing America's energy future. Thank you. I look forward to answering any questions you may have.

[The prepared statement of Mr. Danielson follows:]

PREPARED STATEMENT OF DAVID T. DANIELSON, TO BE ASSISTANT SECRETARY OF
ENERGY (ENERGY EFFICIENCY AND RENEWABLE ENERGY)

Chairman Bingaman, Ranking Member Murkowski, and distinguished members of the committee, it is a distinct honor and privilege to appear before you today as President Obama's and Secretary Chu's nominee for Assistant Secretary for Energy Efficiency and Renewable Energy. I wish to thank Secretary Chu and President Obama for their support and confidence in recommending and nominating me. I also want to thank the Committee for considering my nomination.

Please allow me to start by introducing my parents, Paul and Margaret Danielson, who just flew in from California, and my girlfriend Margaret Cantrell. I want to thank them for all of their love and support.

I was born and raised in a middle class family in Salinas, California, where I attended public schools and developed a life-long love of math and science.

My love for math and science led me to pursue an undergraduate degree in Materials Science and Engineering at the University of California, Berkeley. During my studies there, I became keenly aware of energy's critical role in America's national and economic security and the profound opportunity that exists for our nation to leverage its world class technical, entrepreneurial, and industrial talent to solve these challenges. Fully committed to meeting these challenges, I went on to pursue a PhD at MIT to develop cutting-edge new energy technologies.

While at MIT, I conducted research in solar power, taught courses on advanced energy technologies, and authored more than 20 scientific articles. In addition to my research, I founded the MIT Energy Club—a first-of-a-kind campus organization devoted to building a multi-disciplinary MIT energy community through an outcome-oriented, fact-based, technology-agnostic approach to solving our nation's energy challenges. This Club became the largest, most active organization on campus, helped spawn the creation of MIT's Energy Initiative (a \$325M energy research initiative that engages more than 270 MIT faculty researchers), and catalyzed the creation a network of more than 45 sister-clubs at top universities around the country with more than 10,000 student members.

After my time at MIT, I joined the private sector as an energy venture capitalist, co-founding the clean energy investment practice at General Catalyst Partners, a Boston-based venture capital firm with \$1.7B under management. As a venture capitalist, I helped create and grow American energy start-ups in various advanced energy technology areas including: advanced biofuels, natural gas, solar power, wind power, carbon capture and storage, and efficient lighting. While in venture capital, I also co-founded the New England Clean Energy Council, a non-profit organization that built a strong regional clean energy community and serves as a platform for effective public-private partnerships.

Two and a half years ago, I left the private sector to help establish the Department of Energy's Advanced Research Projects Agency—Energy (ARPA-E) as its first employee. At ARPA-E, I played a key role in establishing and building the core foundations of organizational, cultural, and operational excellence for this new agency. I am proud to say that ARPA-E is already yielding some very exciting early results.

As ARPA-E's first Program Director, I currently manage \$100M in investments in 24 high-risk, high-impact R&D projects in next generation batteries for plug-in electric vehicles, grid-scale storage, next generation solar wafers, geothermal drilling, rare-earth free magnets, and waste heat capturing thermoelectric devices. With continued development and support, these ARPA-E projects could lead to the creation of whole new energy technology industries and American leadership in those industries.

All the things that make America unique put us in an incredibly strong position to create and lead the energy industries of the future: we have the world's best and most creative researchers in our universities and national labs and our entrepreneurial eco-system is second to none.

I believe that my technical and business background in a wide variety of clean energy fields has provided me with the experience and expertise necessary to lead the Office of Energy Efficiency and Renewable Energy (EERE). EERE has played a pivotal role in driving U.S. leadership to date in the emerging energy efficiency and renewable energy sectors. Citing just one example, EERE support has been critical to the development of the batteries at the heart of today's hybrid electric vehicles, in addition to the batteries in both current and next generation plug-in hybrid electric vehicles. EERE's mission to provide American companies with a clean energy technology advantage has only become more urgent as countries like China have begun to dramatically scale up their investments in clean energy.

If confirmed, I look forward to applying my full energy and commitment to advancing America's strong and growing energy innovation ecosystem. I pledge to work closely with this committee to lower our dependence on foreign oil, decrease energy costs for American families and businesses, and re-invigorate the Nation's economy; all while providing a better environment for our children and grandchildren.

Mr. Chairman, Ranking Member Murkowski, and members of the committee, I thank you again for considering my nomination. If confirmed, I look forward to working with this committee and others in the Congress as we pursue the common goal of securing America's energy future.

Thank you and I look forward to answering any questions you may have.

The CHAIRMAN. Thank you very much.

Ms. Harris, go right ahead.

**TESTIMONY OF LADORIS G. HARRIS, NOMINEE TO BE
DIRECTOR FOR THE OFFICE OF MINORITY ECONOMIC IMPACT**

Ms. HARRIS. Chairman Bingaman, Ranking Member Murkowski and distinguished members of the committee, I am humbled and honored to come before you today as President Obama's nominee for the Director of the Office of Minority Economic Impact for the Department of Energy.

First I have to thank President Obama and Secretary Chu for recognizing my abilities and nominating me for this position. I'm also most appreciative of this committee for considering my nomination. I am joined today, as I mentioned earlier, by a host of family and friends who share my view that this position is one that I have been preparing for my entire career.

I am a 29 year, energy industry leader, who with roles spanning from field service engineer to corporate officer in some of the world's largest engineering firms. I am currently President CEO of Jabo Industry, a minority owned consulting business focused primarily in energy information and health care industries. My corporate and entrepreneur experience has prepared me to effectively perform in the position to which I've been nominated.

I was born in the small town of Denmark, South Carolina. I am proud to be the daughter of William "Jabo" Guess, a wise 92 year old, who raised 13 children after my mother died of breast cancer when I was only 8 years old. He raised us with strong family values, unwavering integrity, robust work ethics, commitment to education and faith in God, all wrapped in love and laughter.

I was inspired to pursue an engineering career during a field trip to the Savannah River Plant located in Aiken, South Carolina, hosted by my chemistry teacher in high school. The tour emphasized engineering as an attractive and challenging career path for women and minorities. I later returned to Savannah River as a summer intern while in college.

After graduating from the University of South Carolina with a Bachelor of Science in Electrical Engineering, I joined Westinghouse Electric Company as a field service engineer in its nuclear services division. After increasing responsibility and exceptional performance I became the youngest employee in the history of the division to be promoted to management. During my tenure at Westinghouse, I received my Masters of Science in Technology Management from Southern Polytechnic State University.

I also worked at Westinghouse at ABB services where I received four promotions within a 5-year period. I was named Vice Presi-

dent of Operations and Production for all operations in the U.S. becoming the highest ranked African American female in ABB worldwide. I later joined the executive ranks of the General Electric Company where I held a number of leadership positions in energy and industrial systems businesses.

My 29 year career in the energy industry has afforded me experience working across many sectors of energy, including renewable energy, electric utility, oil and gas industry and commercial. My diverse leadership roles from operations, engineering services, sales and marketing have prepared me for the duties of the Office of Minority Economic Impact. My technical and operational experience coupled with my strong business acumen equips me with the expertise necessary to lead and enhance this very important office of the Department. Further, I will lead the office in supporting DOE's mission of creating jobs, improving energy security and developing innovative and competitive energy technology solutions for our Nation.

My steadfast commitment to mentoring students, young professionals and entrepreneurs would be most beneficial in connecting with the citizens of which this office is dedicated to serving. For example, as Chairman of the Entrepreneur Committee for the American Association of Blacks in Energy I increased membership by 85 percent thus resulting in winning the 2010 Chairman's Cup Award.

Thus I fully commit to you that I will strive to fulfill the duties of this position beyond expectations and to lead the continued progression of small, disadvantaged and minority businesses in helping to improve our Nation's economy. I am committed to fully engaging this office as a critical conduit to achieve the Department's overall goals and objectives as well as ensure minority businesses, as well as minority educational institutions enjoying full participation of the Department's programs.

I would like to thank each of you for your time and attention. If confirmed as Director of the Office of Minority Economic Impact I will be honored to have the opportunity to work closely with this committee. Thank you again and I welcome any questions you may have.

[The prepared statement of Ms. Harris follows:]

PREPARED STATEMENT OF LADORIS G. HARRIS, NOMINEE TO BE DIRECTOR FOR THE
OFFICE OF MINORITY ECONOMIC IMPACT

Chairman Bingaman, Ranking Member Murkowski, and distinguished members of the Committee, I am humbled and honored to come before you today as President Obama's nominee for Director of the Office of Minority Economic Impact for the Department of Energy.

First, I have to thank President Obama and Secretary Chu for recognizing my abilities and nominating me for this position. I am also most appreciative of this Committee for considering my nomination.

I am joined today by a host of family and friends who share my view that this position is one that I have been preparing for my entire career.

I am a 29-year Energy industry leader, with roles spanning from field service engineer to corporate officer in some of the world's largest engineering firms. I am currently President & Chief Executive Officer of Jabo Industries, LLC, a minority-woman owned management consulting business concentrated primarily in the Energy, Information Technology, and Healthcare industries. My corporate and entrepreneurial experience has well prepared me to effectively perform in the position for which I have been nominated.

I was born in the small town of Denmark, South Carolina. I am proud to be the daughter of William "Jabo" Guess, a wise 92 year-old who raised 13 children after

my mother died of breast cancer when I was only 8 years old. He raised us with strong family values, unwavering integrity, robust work ethics, commitment to education and faith in God, all wrapped in love and laughter.

I was inspired to pursue an engineering career during a field trip to DuPont's Savannah River Site in Aiken, South Carolina, hosted by my high school chemistry teacher. The tour guide emphasized engineering as an attractive and challenging career path for women and minorities. I returned to Savannah River as a summer intern while in college.

After graduating from the University of South Carolina with a Bachelor of Science in Electrical Engineering, I joined Westinghouse Electric Company as a field services engineer in its Nuclear Services Division. After increasing responsibilities and exceptional performance, I became the youngest employee in the history of the division to be promoted to management. During my tenure at Westinghouse, I received a Master of Science in Technology Management from Southern Polytechnic State University. I worked for ABB Services, Inc., where I received four promotions within five years. I was named VP of Operations & Production for all operations in the U.S., becoming the highest-ranked African American female in ABB worldwide. I later joined the executive ranks of the General Electric Company, where I held a number of leadership positions in its Energy and Industrial Systems businesses.

My 29-year career in the energy industry has afforded me experience working across many energy sectors, including renewable energy, electric utility, oil & gas, industrial, and commercial. My diverse leadership roles in operations, engineering, services, sales and marketing, have prepared me for the duties of the Office of Minority Economic Impact at the Department of Energy. My technical and operational experience, coupled with strong business acumen, equips me with the expertise needed to lead and enhance this important office within the Department. Further, I will lead the Office in supporting the DOE mission of creating jobs, improving energy security and developing innovative and competitive energy technology solutions for our nation. My steadfast commitment to mentoring students, young professionals and entrepreneurs will be most beneficial in connecting with the citizens the Office of Minority Economic Impact is dedicated to serving. For example, as Chairman of the Entrepreneurs Committee for the American Association of Blacks in Energy (AABE), I increased membership by 85% thus resulting in winning the 2010 Chairman's Cup Award.

Thus, I fully commit to you that I will strive to fulfill the duties of this position beyond expectation and to lead the continued progression of small, disadvantaged and minority businesses in helping to improve our nation's economy. I am committed to fully engaging the Office as a critical conduit to achieve the Department's overall goals and objectives, assuring that minority businesses and minority educational institutions enjoy full participation in the Department's programs and opportunities.

I would like to thank each of you for your time and attention. If confirmed as Director of the Office of Minority Economic Impact, I would be honored to have the opportunity to work closely with this Committee. Thank you again and I welcome any questions you may have.

The CHAIRMAN. Thank you and thank all of you for your excellent statements. Let me start with a few questions.

Dr. Danielson, let me ask first of all about an issue that is of concern to me and I think several on the committee here that relates to the Energy Star program. This is a very highly successful program, jointly run by the Department of Energy and the EPA in partnership with thousands of private businesses and organizations. I think everyone agrees that it does save American consumers billions of dollars on their energy bills every year.

It's a voluntary program, but perhaps because it is voluntary my perception is that EPA has not always done a very good job of taking the views and concerns of some of the private companies into account in setting its standards. It's something that has been brought to the attention of me and others on the committee. I guess I would ask you if this is something you would be willing to look into assuming you're confirmed to ensure that the views of the program's stakeholders are fully taken into account in the setting of standards?

Mr. DANIELSON. Thank you, Chairman, for your question.

You know, energy efficiency is a huge opportunity, right? I think the Secretary has been quoted as saying, "It's not the low hanging fruit, but the fruit, you know, sitting on the ground rotting." So I consider energy efficiency and EERE considers energy efficiency a high priority for the work that we're doing.

I absolutely commit to working with you on this issue. Fortunately the current—if confirmed. The current Deputy Assistant Secretary of Energy Efficiency, Kathleen Hogan has good ties to EPA. So I think that will allow us to make sure that we coordinate in a strong way.

The CHAIRMAN. Very good.

Let me ask another question. The Energy Act we passed in 2007, the Energy Independence and Security Act of 2007, authorizes the Department to award three prizes for more efficient lights. The Department was able to award one of those prizes by reprogramming funds. We, both Senator Murkowski and I, were available to and participated in the awarding of that prize.

But the Department has not yet requested any funds for the other two prizes. I know that you can't commit the Department to making any specific budget requests but would you be willing, if confirmed, to work to see if you can't move ahead with this part of the 2007 bill?

Mr. DANIELSON. If confirmed, I will be very happy to work with you and this committee on that issue.

The CHAIRMAN. Alright.

I'll ask one other question of Mr. Woods. The Nuclear Regulatory Commission announced a rather confusing decision recently on the Department's application to construct a nuclear waste repository. The decision neither allows the Department to withdraw the application nor allows the Licensing Board to continue working on it.

So that seems to leave the Department in a legal position of being both statutorily and contractually obligated to dispose of the Nation's nuclear waste, but having no plan to meet that obligation other than to wait for the Blue Ribbon Commission to come up with a plan. If confirmed, would you be willing to take a more active role in helping to find a way for the Department to meet its legal obligation under this law that I've described?

Mr. WOODS. Yes, sir. If confirmed as General Counsel I believe it would be my job to ensure the Department complies with its obligations under law. Thank you.

The CHAIRMAN. Very good.

Ms. Harris, let me just ask you. I recently wrote to Secretary Chu about establishing a new, Small Business Technical Assistance Program to provide support to small business owners who face technical barriers to success.

Ms. HARRIS. Yes.

The CHAIRMAN. This would be modeled on the highly successful program that NASA has. It would enable Department of Energy laboratories and contractors to provide up to 40 hours of technical expertise to help small businesses overcome technological hurdles. Would you be willing to look into that proposal if you're confirmed and see if that's something you could support?

Ms. HARRIS. Absolutely, Chairman.

The CHAIRMAN. Alright. That's all I had.

Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Mr. WOODS, let me start with you. Earlier this year on the committee, we had reported legislation on advanced vehicle technologies. There was a little bit of a new wrinkle. Instead of simply duplicating the Department's existing authorities, which has been the traditional approach around here, we decided to review everything on the books. We decided to repeal the authorities that DOE would no longer need.

When we went through that process the Office of General Counsel was really very helpful. But I think we recognize that it was just a start. So my question to you is whether you will commit to a full review of all of DOE's current authorizations and to help us identify if there are any areas that are duplicative and perhaps unnecessary?

Mr. WOODS. Senator, yes. Thank you very much. I'm happy to commit to work with you and your staff in your efforts. I think it's a lot. We'll endeavor to try to ensure that there's not unnecessary duplication of the statute.

Senator MURKOWSKI. Good. Good. I appreciate that. As we look to streamline the Department's authorities in other areas we'll appreciate working with you, assuming that you are confirmed, to do just that.

Mr. WOODS. Thank you, Ma'am.

Senator MURKOWSKI. Dr. Danielson, let me ask you the question everyone is talking about, Solyndra. It's on the front page of the newspapers seemingly everyday right now. It looks like our first Federal loan guarantee is going to result in some pretty tremendous losses at the expense of U.S. taxpayers.

Unfortunately we can't say that we weren't warned about this. Last year there was a memo by Carol Browner and others about the Loan Guarantee Program that suggested that the guarantees were going to projects that perhaps really didn't need them. As a result the Federal funds were accounting for too large a proportion of their financing.

There's going to be a lot of Monday morning quarterbacking going on here. But in reflection of those 2 events it appears that the Stimulus loan guarantee program is being used to support some companies that don't need support. Then at the other end of the spectrum you have companies that won't succeed even if we give that substantial Federal assistance.

So the real question is how do we find the middle because right now I can tell you there's an awful lot of people that are saying we need to get rid of the Loan Guarantee Program. This is a case in point about how this simply doesn't work. The question is how do we find that middle? How do we find those projects that actually would help or benefit from a loan guarantee?

Then I guess a bigger question is whether or not this is actually an appropriate instrument for the government to use in promoting innovative energy technologies?

Mr. DANIELSON. Thank you for your question, Ranking Member Murkowski.

The President and Secretary Chu I believe nominated me for the position at EERE because of my cutting edge, my background in cutting edge R and D for my research at MIT and my experience in very early stage venture capital which funds those first few steps out of the gate for new technologies that have great promise. If you look at EERE, the real focus of EERE is all about funding cutting edge new technologies that can lead to technical performance and cost performance that can make them market competitive. Then let those technologies go compete out on the market.

As nominee for EERE I don't have any direct purview over the Loan Guarantee Program and my own personal expertise isn't in the commercial side of finance. So I don't think I'm in a position to directly address that issue.

Senator MURKOWSKI. I think it is something that, from a member's perspective, we need to be ensuring the wise and prudent use of taxpayer dollars when they go out toward loan guarantees whether it's for solar, whether it's for renewable or whatever the initiative may be. This is something that we need to get our arms around. Right now questions are being legitimately asked about whether or not this is an appropriate use and what the future of these loan guarantees truly may be.

I'm going to have some follow up for you. But before I do let me just ask you, Ms. Harris, very quickly: You are very familiar as one who has been involved with energy initiatives and lots of different levels. You're very aware of the broad range of new regulations that are facing our industries, particularly some of these initiatives that are coming out of the EPA.

We don't have the jurisdiction over the EPA here in this committee, but we do oversee some of the agencies that are responsible for ensuring the affordability and the reliability of our energy supply. I have asked the FERC to do a full sum assessment of what the cumulative impact of some of these EPA regs will be on the reliability and the affordability of energy. I have asked for that accounting.

What I would ask you today, if confirmed as the head of the Office of Minority Economic Impact, can we count on you to monitor the impacts of energy and pollution rules and to provide the Secretary and other Administration officials and even us here in Congress the full assessments of what we find? Because I think in your capacity, you can be looking to the impacts on our minorities where so many are in a position where they are least able to afford higher utility bills, higher costs of just living within their areas. So I'm asking you to look to this cumulative impact and be available to report to us.

Ms. HARRIS. Senator Murkowski, that is a very important concern and issue. You can count on my support looking into that.

Senator MURKOWSKI. Thank you. I appreciate that.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Manchin.

Senator MANCHIN. Thank you, Mr. Chairman. Thank all of you for appearing today.

Mr. Woods, we are proud that you're—that you have such close ties and so much family still in West Virginia. I know you know of our rich history of what we've done and energy we produce for

this country. We mine the coal that makes the steel that produces the manufacturing jobs that makes this country go for many, many years and we want to continue to still help.

The Solyndra that my colleague, Senator Murkowski, mentioned is very troublesome to us because it's very evident and all the indicators are there that we, as a country, and those in charge of trying to pick winners and losers by using the taxpayer dollars. We don't think that you could ever make that happen. We believe that there has to be a broad spectrum as far as in our utility and also, as far as our energy portfolio.

I would ask all three of you and I'll start with you, Mr. Woods, do you believe energy independence is the most important to our security and economic vitality of this country being energy independent and using the resources we have.

Mr. WOODS. Yes, sir. Personally I believe in the importance of our energy independence.

Mr. Danielson—Dr. Danielson.

Mr. DANIELSON. Senator Manchin, thank you for the question.

I absolutely believe that energy independence is a key priority that we need to have in our energy policy.

Senator MANCHIN. You believe that because of security or economic vitality or both?

Mr. DANIELSON. Both.

Senator MANCHIN. OK.

Ms. Harris.

Ms. HARRIS. I am in full agreement. I feel that the small business community will also be able to support us making sure we have competitive, innovative technology to support that.

Senator MANCHIN. With that being said, you know, I know that myself and my State coming from an energy producing State and being a fossil fuel State which seems to be villainized right now by many, many people around this country. I've said all along that everyone should say a prayer for people that produce the energy that give us the light that we have. With that we're doing everything we possibly can, carbon sequestration. We haven't, you know, basically it's done by the private sector with a partnership with the public sector.

Going to the next generation as far as in coal fired plants and utilizing that until we find the energy of the future. I think, Dr. Danielson, as you're saying in renewables. We have more wind and people don't realize this. In West Virginia we have more wind power than most any State east of the Mississippi. We have done everything.

We're using our hydro. We're using wind. We're using biofuels. We're doing it all. But we know our staple, our mainstay has been coal and now our natural gas with Marcellus. It can be a game changer for the United States of America.

We just feel like we're hitting a brick wall. EPA has—the regulatory agencies, you know. You'd like to think your government is working with you not against you. We like to have our government as our partner not our adversary.

I've got to be honest with you. People in my State and people from any energy producing State believes that they're up against a wall. They can't get past that.

You wonder why our unemployment is high. There's no, basically, in the market right now, I don't know if you feel the same as we feel. But I think the greatest things for job creation would be some dependency understanding that the regulatory agencies are working basically in a balance to find how we can be less dependent on foreign oil, more dependent on domestic energy whether it's renewables, whether it's using our fossils in a cleaner fashion until we get there.

How will you all administer and try to help move that agenda? I'll start with Mr. Woods, with you from the legal counsel and try to give good, sound advice. I'm sure as a West Virginian, common sense is something we value.

Mr. WOODS. Thank you, Senator.

One thing that I said at the beginning was my grandfather and great-grandfather were both coal miners. So I'm completely appreciative of the jobs that those, and the opportunities that those careers present. I know I couldn't have been here if not for the availability of that work.

Sir, if I'm confirmed to be General Counsel I'm going to try my best to provide strong leadership, provide the Department with competent legal advice. My experience is in the private sector and I hope that I bring that experience working with companies to provide leadership of the Department while ensuring that the Department complies with the applicable law.

Senator MANCHIN. Dr. Danielson, on the Solyndra, the failure of Solyndra, half a billion dollars. Are—I mean, do you advocate us trying to make a market when the market is not there? The product can't compete in the marketplace?

Mr. DANIELSON. Thank you for your question.

Again, you know, the mission space of EERE is really focused on engaging with America's best innovators and really supporting them to develop technologies that are going to go out there and compete in the market on their own. So, in my role at EERE, you know, if confirmed, I promise to do everything we can to get those technologies out there that are going to be cost effective—to develop those technologies that are going to be cost effective and have superior performance to the other products that are being used today.

Senator MANCHIN. But you can't guarantee they'll be manufactured in the United States, right? That's what we're finding out. I mean, we might be developing the technology but it's not being manufactured here.

Mr. DANIELSON. Thank you for your question.

In terms of manufacturing one recent strong thrust at EERE has been to try to develop new disruptive manufacturing process technologies that would be able to be deployed in the United States. Recently a program manager was brought in to run the Industrial Technologies Program named Leo Christodoulou. We brought him in. He's the lead manufacturing person at DARPA. So that's a direction that going forward we'd like to move in and would love to work with you on the issue of how we create leadership in manufacturing technologies as well.

Senator MANCHIN. Thank you very much.

The CHAIRMAN. Senator Barrasso.

Senator BARRASSO. Thank you very much, Mr. Chairman.

First I'd like to thank you and Ranking Member Murkowski for their kind comments on the passing of our friend and colleague, Senator Malcolm Wallop. On the front page of the Casper newspaper today: "Malcolm Wallop, 1933 to 2011: 'A guy you wanted on your side.'" My wife, Bobbie, was on his staff here in Washington and he was just a wonderful individual. We will miss him and thank you very much to the both of you for your kind comments.

Mr. Chairman, the nominations. I wanted to congratulate each of you. It could not have come at a more critical time for the Department of Energy. I think it's fair to say that the Department now is facing a really critical time—a crisis—to explain what role the Department played. I know you weren't there to explain what role the Department played in the collapse of the solar panel company, Solyndra, and how the United States lost over \$5 hundred million in loan money that belonged to the taxpayers.

The nominees here today, if confirmed, are going to have a tremendous responsibility, Mr. Chairman, to address this huge failure and to prevent it from happening again. We don't yet have all the facts. We don't know yet exactly what DOE officials did or didn't do to prevent this bad bet.

An investigation has now been launched by the FBI and the Treasury Department announced yesterday they're investigating. We don't know yet what role, exact role, the White House played in rushing reviewers to approve a decision on a centerpiece—really the centerpiece—of President Obama's so-called stimulus program.

Some folks have said mistakes were made. That seems to be an understatement. This isn't me. This is on the front page of the Washington Post yesterday. It says recently released emails show that the White House was aggressively monitoring the Energy Department's deliberations over the loan. We learned that Department of Energy officials sat in on Solyndra board meetings as observers. One presumed they observed the company that was hurting toward bankruptcy.

Then yesterday's USA Today where they raised the question that Senator Murkowski just raised: should Uncle Sam play venture capitalist, consider Solyndra? What we have is the Deputy Secretary of Energy writing that Solyndra was simply a perfect storm of bad market conditions and other factors outside of its control. I agree it was a perfect storm, but I don't think we should be blaming China or the markets or a previous Administration. The perfect storm appears to be a Federal policy of rushed decisions and the demands of a pending public relations campaign by the Administration who wanted rapid answers so they could go and make press statements.

So we want to know what's next. We know that the President's stimulus package allocated \$6 billion for loans to support green technology. Solyndra was the first.

There have been 17 loan guarantees, about \$7.8 billion given. The Department has commitments for an additional \$10 billion. The Department of Energy has said it plans to close on all of those pending loans before September 30th of this year. We're talking 15 days from now. That's another \$10 billion of taxpayer money.

So the American people deserve more facts about how their taxpayer dollars were wasted and how you, as the nominees, will work to ensure it doesn't happen again. That's going to be the questions that I want to get to. So I guess my question, Mr. Woods, is, at yesterday's House hearing on the Department's loan to Solyndra the role of the General Counsel was raised on several occasions. It's my understanding that the Department restructured the loans with Solyndra earlier this year.

When restructuring the loans the Department subordinated the Federal Government's debt to private debt. According to Jonathan Silver, the Executive Director of the Office of Loan Programs, the General Counsel, and I know you weren't General Counsel then, but the General Counsel reviewed the restructuring of the Department's loan to Solyndra. But it's my understanding that the Energy Policy Act of 2005 specifies that a Federal obligation is not to be subordinated to private financing.

So did the Administration violate the law when restructuring the loan to Solyndra?

Mr. WOODS. Sir, as you said—Thank you, Senator, thank you very much for the question.

Sir, if I'm confirmed for this position as General Counsel, I would accept it as my responsibility to provide correct, adequate, legal counsel, properly interpreting the law and ensuring that the loans that are granted by the Department are issued in full compliance with the law.

Sir, I think that you're right that this is an area where the Department will hopefully benefit from the leadership that I would bring to this position. If confirmed I'd bring 11 years of experience in the private sector representing institutions and financial transactions. If confirmed I hope to bring that both my care as a lawyer as well as my commercial expertise in the private sector to these transactions.

Senator BARRASSO. Thank you. Mr. Chairman, perhaps we can get to a second round because I do have additional questions.

Just one final question. Do you believe that the law allows private investors to get paid before taxpayers on loans guaranteed by the government because you've had similar positions in government? How's your understanding of how that would work?

Mr. WOODS. Sir, I'm sorry. I haven't reviewed that statute, but I'd be more than happy to spend the time, if confirmed to look into that question.

Senator BARRASSO. Yes. I mean, this question has been all over the papers for days now. I think the American people really deserve an answer if the American people have to go behind the private investors when their money is put up. So thank you.

Mr. WOODS. Thank you, sir.

Senator BARRASSO. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Shaheen.

Senator SHAHEEN. Thank you, Mr. Chairman. Thank you all very much for being here today and for your willingness to consider these very important appointments.

Because I've been working a lot this session on energy efficiency most of my questions are for you, Dr. Danielson, because as, should you be confirmed, and I hope you will be, obviously your office will

work on many of these issues. One of the challenges that I think exists around energy efficiency that perhaps is magnified by the way the Department of Energy is structured is that energy efficiency is really a part of all of our energy use. We need to think about how to incorporate it into all of our energy use.

Because of the name of your office, Energy Efficiency and Renewable Energy, there may be the impression that this is the only place where we talk about energy efficiency within DOE. So could you talk about how your agency will work with other agencies within the Department of Energy or other offices within the Department of Energy and how we can better incorporate energy efficiency into everything we do around energy?

Mr. DANIELSON. Thank you for your question, Senator Shaheen.

At DOE over the last year or so as a member of the ARPA-E team I've been involved with a number of—with a new concept that we have now at the DOE called integrated technology teams. These are teams that are getting everyone across from Office of Science to EERE, ARPA-E, getting everyone together on a regular basis to share best practices, talk about what they're doing, make sure we're coordinating everything in a very productive fashion.

I am not sure whether we have one for Energy Efficiency yet. That is something that I would definitely create, if confirmed.

Senator SHAHEEN. I look forward to getting a communication from you as soon as that work task force has been created. So you can let us know what it's doing.

One of the concerns that we're hearing from the energy efficiency community and from industry, who are particularly concerned about energy efficiency, is that there is a tug of war going on about whether within DOE we're going to support research and development or commercialization. I wonder if you could talk about how you view the balance between those two challenges for your office.

Mr. DANIELSON. Thank you, Senator, for your question.

I think there does need to be an awareness of commercialization issues within the Office of EERE so that when we fund R and D and we work with scientists and researchers that we have a strong awareness of what are the product attributes that these researchers should be moving toward. Because researchers often will move in a direction of greatest technical interest as opposed to one that might result in techno-economic properties of a product that would result in commercial adoption. So I believe we do need a balance of knowledge within EERE on deep technical knowledge and on an understanding of commercialization and how it works.

So I think a good example of one program, we have a suite of great program managers who really understand this. In the energy efficiency area that I know is of great interest to you, Roland Risser, is running the building technologies program. He has 31 years at PG and E, the largest utility in California. He ran their energy efficiency programs and he's running the buildings program. So, I think, he's an example of the kind of leader we have within the Department who is able to merge those 2 communities, the R and D and the commercial communities.

Senator SHAHEEN. Thank you.

Ms. Harris, first of all let me say how impressive your background is and I appreciated your willingness to share some of your

personal story about how you grew up. Everybody has an impressive resume here. But I especially appreciated that.

Ms. HARRIS. Thank you.

Senator SHAHEEN. Can you talk about some of the particular challenges that you see as you look at what minority businesses are facing as they're trying to get into the energy area?

Ms. HARRIS. Thank you, first of all. Thank you very much.

You know, small businesses are the lifeline blood for the country. The whole idea of making sure that we have opportunities that come through this office, if I'm confirmed, to be able to support those businesses. It's all about making sure if you look at the Department of Energy, for example, is second only to the Department of Defense in having the largest number of government contracting—having a government contract budget. So a substantial amount of that moneys will be supplied to support small businesses.

So that's one area we would really focus on making sure we connect that bridge or that conduit between this particular office and with private sector and corporations in helping grow the economy.

Senator SHAHEEN. Thank you.

Ms. HARRIS. Thank you.

Senator SHAHEEN. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Sanders.

Senator SANDERS. Thank you, Mr. Chairman. If Mr. Woods and Ms. Harris will excuse me, I apologize, most of my questions will also be for Dr. Danielson because energy efficiency and sustainable energy are issues very, very important for the State of Vermont.

I happen to believe A, that global warming is real.

B, that it is already causing very serious problems in the United States and around the world in terms of severe weather disturbances.

I think we have to move boldly and aggressively to transform our energy system. I think energy efficiency certainly is one way to go and sustainable energy is the other. In the midst of that is the recent census report that just came out indicates how middle class is collapsing and poverty is increasing. We have lost millions of manufacturing jobs in recent years. So I think we want to rebuild our manufacturing sector.

One of the concerns that I have is that in recent years, Dr. Danielson, China has put an enormous amount of money. They've invested some \$30 billion alone into solar financing for its companies. In other words when they're attracting American companies what they're saying is we're going to give you 1 percent interest rate. We may build factories for you. We may provide tax holidays for you.

Now how do we, at a time when the solar industry and solar jobs in this country are exploding. We went from 46,000 to 93,000. You know, Mr. Chairman, there's been some certainly negative problems within the solar industry.

We've heard some of them, but let's not forget in the last year they've doubled. Solar jobs doubled from 46 to 93,000 between 2009 and 2010. Solar PV installations doubled as well when we installed 878 megawatts of PV in 2010.

So the solar industry is exploding. But one of the concerns that I have is with the huge subsidies that China is providing to compa-

nies. How do we compete against that and create those manufacturing jobs here?

Mr. DANIELSON. Thank you for your question, Senator Sanders.

Going back to the role of EERE, when I, as formerly as a venture capitalist and during my time at ARPA-E, I've crawled through it feels like almost all the labs in the country. It's phenomenal the kind of innovation you find. When you look at these kinds of technologies that I think represent truly disruptive technologies, these are the kind of technologies that I think we're going to find are going to get manufactured here in the United States.

I think—at ARPA-E I funded a technology to make solar wafers 80 percent cheaper. That's real technology differentiation. That's sustainable profit margin.

I think a couple of areas where I see—the visibility we have at EERE is where we think solar prices can get down—prices can get down where widespread unsubsidized economic adoption will happen is in the solar area and in the battery area.

Senator SANDERS. Solar, I mean, as you know the price of solar panels has just plummeted in recent years. I mean they've really gone way, way down. But get back to this issue. We are creating many, many solar jobs in America. But I'm worried about the manufacturer of solar panels.

How do you compete against a country which is providing massive subsidization for the solar industry in China? Do you have any ideas on that?

Mr. DANIELSON. So as I discussed before one area that EERE is really focusing on is developing completely game changing new manufacturing technologies that have far superior attributes to the kind of technologies that are being built up in China right now.

Another element of this equation is demand for these products in the United States. I've had the chance to tour and spend quite a bit of time with a number of the companies that have built battery factories in the Midwest. What has become clear to me is just the way the auto industry works that if you're going to build the plug in vehicle here, you're going to build the battery here. The transportation costs are very high and the just in time nature of the auto industry makes it so that those are going to come together.

Senator SANDERS. Thank you very much.

Mr. Chairman, you know, there is discussion about how the government should not be in the business of picking winners and losers. But I think everybody knows, of course, that's what we do all the time. The question is whether we're smart or not.

Let me—Department of Energy. This is dated, when was this dated? May 15, 2009. Secretary Chu announces \$2.4 billion in funding for carbon capture and storage projects. Mr. Manchin, sounds to me like we're picking winners and losers.

Senate Republicans, we're building 100 new plants, nuclear power plants as quickly as possible. We hope Democrats will join us in that effort particularly now with the President's call to action. Senate Minority Leader, Mitch McConnell, the comment he said on the Senate Floor today. The President could start by moving forward on the Nuclear Loan Guarantee program. Sounds to me like we're picking winners and losers.

So my own point is I happen to believe wind, solar, geothermal, biomass, have huge potential in transforming our energy system, protecting our environment and creating jobs. So let's not—let's end the nonsense about picking winners and losers. That's what we're doing.

The issue is will we pick the smart winners. Will we pick those industries that will protect the environment and create jobs? That's the debate we should be having. Thank you.

The CHAIRMAN. Senator Udall.

Senator UDALL. Thank you, Mr. Chairman. I just want to note I think Senator Sanders made a very good point in the beginning of his remarks about subsidies that the Chinese are putting in place and we ought to fully investigate what's happening there. So thank you, Senator Sanders.

Thank you to the panel for your willingness to serve the country when confirmed.

Dr. Danielson, let me start with you, if I might. Because I think you know several members of the House have sent a letter recently questioning the value of the EERE programs. I don't agree with that assessment. I'd point to the American Energy Innovation Council Report that was released just this week by a number of eminent business leaders including Bill Gates and Norm Augustine about the critical role that our government needs to play in clean energy technology development.

But I'd like you to respond to that letter and to the debate we're having. Is there national value to EERE? What has the office contributed to the Nation in the past? What will it do under your leadership, if you are confirmed?

Mr. DANIELSON. Thank you for your question, Senator Udall. It's a—first and foremost EERE is really there to focus on developing, you know, working with universities, national labs and private sector to develop a suite of technologies that are, you know, that ultimately will compete in the market, in the energy market. But that's going to require innovation. That's a real focus at EERE.

Can I ask you to clarify your question a little further?

Senator UDALL. Talk to me, and the committee, and the Congress and country, about opportunities that you see for EERE to build on its past leadership and its past successes. I mean, you've already touched on some of that this morning, but I want to give you an opportunity to fully share your vision.

Mr. DANIELSON. Right. Thank you very much. Thank you for the clarification.

NREL, National Renewable Energy Lab in your own home State was—played a critical role in the success of one of a great American company in the Clean Energy area named First Solar, which has developed a disruptive technology, a thin film technology called Cadmium Telluride. That's the most valuable solar company in the world, an eight billion dollar market capitalization. NREL and EERE and NREL together played a critical role at the early stages of helping them get their technology up and running and then played a critical role in helping them understand issues around materials availability. In addition to potential toxicity issues of their product and reports from NREL funded by EERE actually

went into their early sales meetings as I learned, recently, this week.

So First Solar is one great success. I'd say the batteries program at EERE has had significant impact. The R and D down there has had a significant impact in lowering battery cost over the last at least 3 years from 2009 to current year. Battery costs have gone down from \$1,000 per kilowatt hour to 650. By 2015, if our R and D investments pan out, we think we can get down to \$300 per kilowatt hour. That's the point of which a plug in hybrid vehicle actually becomes cost competitive.

So those are a few of the areas where we've already made impact. Going forward offshore wind is a big area, marine hydrokinetic, geothermal and a number of other areas are areas where we think that through significant R and D investments the United States can become a world leader.

Senator UDALL. In that context, do you think China is investing in all these technologies just so that they can brag about being green and feel good about being able to say they're green or do you think there's a bigger strategy that they have when it comes to their economic development and the potential for profit?

Mr. DANIELSON. Thank you for this question.

The Chinese have rapidly growing energy demand. They're using pretty much every technology you can think of to try to meet that demand. China and India are going to be very rapidly growing energy markets and they could be great opportunities for American companies to be able to make and export products, advanced energy products.

Senator UDALL. So what I hear you saying implicitly is that China is pursuing this policy because the job creation potential, as well as the environmental benefits, as well as their national security concerns, and now I'd editorialize. Those are the very same reasons that I believe we need to be investing fully in these areas. Understanding that we need an all of the above strategy—there's no one silver bullet here. There's silver buckshot, in my opinion. We need to be pursuing all of these technologies.

Talk a little bit about—before my time expires, your vision for providing leadership and oversight and stewardship of the National Renewable Energy Lab which is based in Colorado. I will confess I have a particular interest.

Mr. DANIELSON. Thank you for your question about NREL. The National Renewable Energy Lab is EERE's national lab. It's a jewel in the National Lab system. Tremendous talent there.

As I said before it has had a huge impact in the past. My vision is to work very closely with NREL's Director Dan Arvizu and with this committee to create a joint vision for NREL and EERE together where we're sitting in the room together deciding how we can use our resources to best effect and then executing on that vision together.

Senator UDALL. Excellent. I'm excited to hear that vision.

Mr. Chairman, thank you.

Ms. Harris, your story is inspiring. We look forward to working with you.

Mr. Woods, you and I share the same alma mater, although I don't think I could have been admitted at the time you did because the standards were raised significantly.

[Laughter.]

Senator UDALL. So congratulations and look forward to working with you as well.

Thank you.

The CHAIRMAN. Senator Wyden.

Senator WYDEN. Thank you, Mr. Chairman.

Dr. Woods—Dr. Danielson, Mr. Woods, I want to go at this solar issue in a different way particularly because of the ramifications from manufacturing in this country, American jobs particularly in solar panels.

Roughly half the costs of a silicon solar cell is the cost of the silicon wafer that is used to make it. Yet the Department has refused to recognize the U.S. content of those wafers in establishing standards for meeting the Buy American provision included in the Recovery Act. Now Dr. Danielson, your predecessor refused to look beyond the final assembly stages in deciding whether a solar panel had U.S. content. That doesn't make sense in the real world because of the global supply chain.

Mr. Woods, it seems that the General Counsel's office went along with this approach as well. So what I want to see this morning from the two of you, Dr. Danielson and Mr. Woods, is a commitment that the Department of Energy both on a policy basis and a legal basis is going to take a more realistic look at helping America energy equipment manufacturers compete no matter where they are in the supply chain. So this is a question about whether the Department will take a fresh look and specifically at the question of all of the inputs from U.S. manufacturing throughout the supply chain because I think if that's done we'll be in a position to have solar manufacturing in this country and not basically just get all the material from China and end up with a installation business in the United States and not a manufacturing business.

So, question. Will you take a fresh look at this?

Mr. DANIELSON. Thank you for your question, Senator Wyden. Absolutely. Currently in the silicon solar value chain the U.S. has a relatively strong position in polysilicon. But in terms of wafers has a lower market share. Increasing that market share with new technologies would be an absolute boon and I'd love to look at this issue with you.

Senator WYDEN. Mr. Woods.

Mr. WOODS. Thank you very much for the question, Senator.

Senator WYDEN. You're not going to be able to do it unless you give him the legal green light I think.

[Laughter.]

Mr. WOODS. Thank you, sir.

The Buy America provisions of the statute I think are important. The policy purpose behind them as I understand is to help protect and defend American industry and jobs. Sir, if I'm confirmed I'll commit to looking at this issue and return the Department—

Senator WYDEN. The fresh eye on the global supply chain. Those are the magical words.

Mr. WOODS. I don't understand that issue, sir. But I'm absolutely committed to looking at this issue with a fresh eye as I get up to speed with all the Department's issues.

Senator WYDEN. OK.

Dr. Danielson, obviously tough choices in the budget, the renewable energy budget does seem to be trying to solve the problem by cutting a number of the programs that are small and I think are going to make a difference, water power and hydrogen. One of the reasons I feel so strongly about this as Chairman Bingaman, Senator Murkowski know we worked on the alternative, you know, fuel vehicle issue. I'm concerned that we not be in a position with these alternative fuel vehicles to be putting all our eggs in one basket. I strongly support the effort toward electric cars but I know one of the major comments I got after the legislation was passed in this committee is both domestic and international auto makers want to make sure that the bill does allow for the development of alternative vehicles particularly hydrogen vehicles.

Will you make sure, if confirmed, that your Renewable Energy Program includes a balanced portfolio and will look specifically at some of these technologies that seem to be getting short shrift in the budget?

Mr. DANIELSON. Thank you for your question. In order to achieve the President's goal of reducing oil imports by one-third by 2025 we're going to need a portfolio of solutions. I consider fuel cells and all the technologies in the EERE portfolio to be part of that solution.

We see some of these as technologies that might get in—that might reach cost parity and performance parity with existing vehicles in the nearer term and some of these are a little bit longer term investments. I will absolutely make sure to have an appropriate balance in that portfolio, if confirmed.

Senator WYDEN. One other quick question before my time expires. I've come to the conclusion that we have special opportunities in the area of energy storage. Chairman Bingaman and I and other colleagues have worked in this area. Part of this involves also the Finance Committee and some tax incentives, but it's been brought to my attention that the office that you're going to manage has refused to allow one promising storage technology in the use of grid controlled water heaters to be approved.

I'd like to hear as I wrap up what you're willing to do to help develop that energy storage technology because I think we understand what an important role they're going to play with respect to intermittent, renewable generation.

Mr. DANIELSON. Thank you for that question. You know, water heaters as a source of demand response is a very promising technology. It could be very low cost. That's an interesting place where it really sits at the intersection between the Office of Electricity run by Patricia Hoffman and EERE, the Office for which I've been nominated. If confirmed I promise you that I will make sure that that technology doesn't fall through the cracks.

Senator WYDEN. If you're confirmed can you get back to me within say 60 days particularly on the area of the technology, storage technology, that the agency has refused to approve, the grid controlled water heaters? Can you get back to me quickly on that?

Mr. DANIELSON. Absolutely.

Senator WYDEN. 60 days?

Mr. DANIELSON. Absolutely.

Senator WYDEN. OK. Mr. Chairman, thank you.

The CHAIRMAN. Thank you. I did not have any questions in the second round. Let me call on Senator Murkowski for her questions.

Senator MURKOWSKI. Thank you, Mr. Chairman.

A lot of discussion about jobs nowadays. The President has made a key theme of his Administration of that, of green jobs and there's a lot of discussion and debate as to what we're actually creating. You talk to some and they say, well, we're creating thousands of green jobs on a daily basis.

One of the stations this morning was reporting that of the Stimulus dollars that were spent down from DOE, there's been \$19 billion of the \$38 billion that was authorized in the Stimulus. That \$19 billion has created a total of 3,545 jobs.

You do the math on that and it comes down to \$5 million, \$359,000 per job, over \$5 million a job. It's almost inconceivable. Whether that number is right or whether that number is wrong this is something that we're all talking about right now.

What it comes down to, I think from a discussion perspective, is what is the priority here? Is the priority to create green jobs just to say that we have created a green job within the industry or is the priority to really provide for lower cost energy because the rest of our economy relies on, depends on our low cost energy?

Ms. Harris, this is going to certainly be an issue for you. Sso I want to ask the question just from a 30,000 foot level. Should our focus be on creating jobs in the energy sector specific to green energy jobs creation or are we better served by focusing on driving our costs down?

It goes back to the statement that I made in the opening there that, you know, green jobs, in my opinion, should not necessarily be the means to the end. What we need to be asking, if in fact you're going to increase your cost of energy, is have we really benefited America's families here? I think it goes to the heart of what you will be dealing with, Dr. Danielson. Is the priority here creating green energy jobs or should the priority be focused on driving our energy costs down?

Mr. DANIELSON. Thank you for your question, Ranking Member Murkowski.

I believe that there's a strong interplay between innovation and pushing innovation and making things. In 2 particular clean energy fields, solar power and in batteries for electric vehicles, the Department has very aggressive R and D programs that make us feel that we're going to get to unsubsidized techno-economic parity with other energy sources by the end of the decade. So we're committing the Sun Shot Initiative is an initiative within the EERE that is committed to getting to a dollar per watt installed in the field at which point it would be six cent per kilowatt hour. So that initiative is pushing R and D, pushing hard on new installation technologies and actually helping work with permitting costs which have actually become a significant part of the installation there.

On the battery side we have the same situation where we believe that by 2015 the technology will be at the point in terms of cost

and performance that it will be readily economically adoptable without subsidies. So as we get to these levels of performance and cost where unsubsidized adoption becomes the economic thing to do we think that these areas are going to skyrocket in terms of the size of these markets. We also think it's important to have the interplay between the manufacturing of these products and the innovation of these products so that they can complement each other and to continue to drive the cost down and the performance up.

Senator MURKOWSKI. Let me ask you one last question very quickly. This relates to a renewable energy source that in my State is providing us with 25 percent of our renewable energy and this is hydro. You have mentioned you've got great optimism with marine hydrokinetic, geothermal, wind, solar, but you did not mention hydro- electric generation which provides 7 percent of our country's total electricity, two-thirds of it's renewable power.

So as we seek to increase the contribution of renewables where does hydro factor into your line of thinking?

Mr. DANIELSON. Thank you for your question, Ranking Member Murkowski.

I believe that hydro, conventional hydro has a huge role to play. If you—just looking at the analysis that EERE Water Program has done. EERE believes that we can add another 100 gigawatts to the 70 gigawatts we have today by increasing efficiency of existing turbines by taking dams that exist that are not powered and also by increasing pumped hydro capacity and some sustainable new development that we should be able to double that amount in the next 20 years.

Senator MURKOWSKI. We would like to work with you on that.

Mr. DANIELSON. Great.

Senator MURKOWSKI. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Manchin.

Senator MANCHIN. Thank you again, Chairman.

Dr. Danielson, I know you're getting an unfair portion of these questions but you can tell how concerned that we are of this proportionately shared money we're spending in different directions. So with that being said, I hope that you're aware of the National Energy Technology Laboratory in Morgantown, West Virginia in your relationship. If you believe that you can have a strong relationship they do some very unique things in research capabilities. I would just like to know if you are aware, if you've been working with them or if you have a relationship with them.

Mr. DANIELSON. Thank you for your question, Senator Manchin.

I know the Director Anthony Cugini personally, well. Just visited them the other day. You know, NETL is a great lab.

In terms of the EERE mission as part of our, you know, collaborative efforts between—across the Department, when I was at ARPA-E I was involved with reviews that were performed at NETL. The NETL staff in this, the area of energy storage were phenomenally good.

Senator MANCHIN. Thank you.

Mr. DANIELSON. So I would look forward to—if confirmed I would look forward to a continued engagement with the best and brightest over at NETL.

Senator MANCHIN. Thank you. Switching back you mentioned China and India as the merging countries with tremendous appetite for energy. Where are they spending most of their dollars right now in providing the energy? Where is that money going and what type of energy are they producing right now to provide for the growth and needs of their country and their people?

Mr. DANIELSON. Thank you for that question. I don't have the exact numbers in my mind right now. I'd be more than happy to follow up with our DOE's Office of Policy and International Affairs on that.

Mr. DANIELSON. But in general become aware of very large initiatives in coal to liquids.

Very large efforts in clean coal.

Large efforts in advanced batteries for electrified vehicles and solar power.

These are all areas that I've become aware of very strong—

Senator MANCHIN. Let me maybe help you a little bit with that then because we've done a lot of research in this. If you look at India and you look at China most of their dollars right now for kilowatt power is coming from fossil because it's what they have. We're not going to change that.

What we could do is change by proportionately putting money into research of clean coal technology, of CO₂ capturing and using the waste from CO₂ as we did with SO₂. We're not proportionately putting the money there because we're trying to pick winners and losers by pushing it somewhere else. I'm a firm believer that we need to produce or provide in the research that will find the fuel for the future. But you've got to use what you have now and the rest of the world is using it.

If we're truly going to be an innovator and creator of how do we clean up this atmosphere and have a part with the environment and the economy, it's by finding how/what the rest of the world is using and figure out ways of maybe enhance them to use it better with new technology. We're not doing it. We're missing the boat there.

I can't figure out for the life of me. I mean, I applaud the solar and wind and everything that we're doing. We're for that.

But what we've got and what we know has got/brought us to this. They say dance with who brung you. We know what got us to the dance. Can't we make it better because China and India is going in that direction whether you or I or anyone in America wants them to do it or not.

It's what available for them. They're building coal fired plants almost one a week. You're not going to stop them. So why shouldn't we develop the technology?

You don't consider that renewables so that's not what you're going is it?

Mr. DANIELSON. Yes, thank you for your comments and question. It's clear that coal is—it's critical for our Nation. You know, 50 percent of our power right now.

Senator MANCHIN. Right.

Mr. DANIELSON. We have vast reserves. China, India have vast reserves.

Senator MANCHIN. But I don't hear any of you talking about it how we can do it and use it better. I hear a little bit of a nice little pat on the back every now and then. But basically it's carrying the load.

Mr. DANIELSON. Yes. The nominee for the Office of Fossil Energy, Chuck, Chuck McConnell and I have a great relationship.

Senator MANCHIN. Great.

Mr. DANIELSON. When I was in the private sector in a venture capital firm I funded a CCS startup which is doing very well. So I'm supportive of clean coal. But in my role in EERE I would be focused on the clean energy and energy efficiency.

Senator MANCHIN. But one final—clean energy, one final question to you. Do you believe proportionately we're spending the amount of money with the energy that we're receiving from the fossil to really find the new technology that we can continue to use it until we find the fuel of the future? Are we putting the same effort, the same resources as we are with everything else trying to develop something that maybe the market hasn't accepted as of yet or it's not competitive.

Do you believe that same effort is being put proportionately?

Mr. DANIELSON. Thank you for your question. I can tell you that the Office of Fossil Energy and EERE, if I'm confirmed, are going to be very closely—

Senator MANCHIN. But do you believe—you've evaluated. Do you believe the same amount of money, proportionately for what we're receiving is being spent?

Mr. DANIELSON. I guess I can only comment that, you know, under the EERE that the area that I'm being asked to really cover, you know, I'm going to do absolutely everything I can to make sure that we have our budget priorities right there and spend dollars in very effective ways.

Senator MANCHIN. We'll talk later.

[Laughter.]

Mr. DANIELSON. I look forward to it.

The CHAIRMAN. Senator Barrasso.

Senator BARRASSO. Thank you, Mr. Chairman.

I'd like to continue, if I could with Mr. Woods. Obviously serious questions to be raised about political pressure the White House exerted on the Office of Loan Programs to get the Solyndra loan wrapped up. You know, in testimony before the Energy Committee last February, actually of 2010, Secretary Chu said that, with respect to President Obama's goal for stimulus spending, "We looked at the things where we know we can move the money more quickly."

Just yesterday the White House Press Secretary revealed that a scheduled event for the President was creating pressure for a decision. If confirmed what safeguards are you going to put into place to protect the Department staff from the political pressure of the White House?

Mr. WOODS. Sir, in my role as General Counsel is confirmed I think my job would be to ensure that all of these loans are made in accordance with the law. I think that it's important that loans be evaluated pursuant to and in accordance with their technical

and financial merit. That is the approach that I'm familiar with from my years in the private sector.

As I come to this new position, if confirmed, I intend to bring the same level of diligence to these transactions as I did with my experience in the private sector, sir.

Senator BARRASSO. Earlier all of you took an oath and talked about coming freely to the committee. So I would ask, if confirmed, will you report to this committee if and when you believe or made aware that the Administration officials are improperly trying to influence the decisionmaking of the DOE's staff.

Mr. WOODS. Sir, I look forward to working closely with the members of this committee with respect to everything that you have an interest in. I think that's an important part of our relationship with the Members of the Congress. I absolutely look forward to working with you and responding to any questions that you have responsibly and quickly.

Senator BARRASSO. Thank you.

Dr. Danielson, It's my understanding looking at your biography, you co-founded a firm's clean energy investment practice. Would you have invested \$500 million of your client's money looking at Solyndra?

Mr. DANIELSON. Thank you for your question, Senator Barrasso.

I actually don't have any direct experience with Solyndra as a company. So I wouldn't be able to make that retrospective judgment right now.

Senator BARRASSO. Look at the accountants. Others looked at this and said this place is going to be bankrupt in 2 years. They said that in 2009. They said probably by September 2011 and that day it went bankrupt—1,100 people out of work, the taxpayers on the hook for \$500 million.

When you try to make assessments of investments what role does guaranteed loans from a government have to do with making venture type investments?

Mr. DANIELSON. Thank you for your question. In my role at General Catalyst Partners I was very focused on the earliest stages of commercialization where it was really trolling the labs and trying to find disruptive technologies and then trying to see if those might be able to meet a market need sometime down the road. So my personal expertise is more in that early stage part of the investment cycle for these technologies.

Senator BARRASSO. What about the role of having private investors get paid before taxpayers on the loan guaranteed by the government?

Mr. DANIELSON. Again, given my early stage finance background and not the late stage of debt and equity finance background I don't feel like I'm in a position to address that direct question—

Senator BARRASSO. It's kind of interesting because you're being nominated for the whole country to be the Assistant Secretary for Energy Efficiency and Renewable Energy. These are key issues that we have to address as a Nation. Your qualifications, your educational background is impeccable.

I'm just trying to figure out where we go. I follow Senator Manchin in his thoughts and ideas. I met with Bill Gates in this very room 2 days ago. We're very interested in energy and using

the technology and becoming more energy self sufficient. We want to make energy as clean as we can, as fast as we can and do it in ways that don't raise costs for American families.

So, you know, I'm asking specific questions. These are questions that I'm hearing at home in Wyoming. I know Senator Manchin is hearing them at home. We're all hearing them.

So, I mean, that's why I raise these issues.

It's also my understanding—this is for anyone, that the Department has until September 30th to guarantee another \$10 billion in loans. I don't know that the confirmation vote in the Senate will be held between now and then. But in light of the bankruptcy of Solyndra and the political pressure that the White House appears to have exerted on the Department, do you think it's appropriate to guarantee \$10 billion more in loans before September 30th?

Mr. DANIELSON. Is that addressed at me, Senator?

Senator BARRASSO. Were you shaking your head no or were you looking to see if someone else might—

Mr. DANIELSON. Is that addressed to me?

Senator BARRASSO. Go right ahead. Then I can ask Mr. Woods.

Mr. DANIELSON. Thank you for the question, Senator Barrasso.

If I am confirmed and I am in a position—if I am running EERE at a relevant time in the timeframe you're talking about. I would be doing everything I could to support any requests that the Loan Guarantee Program gave the experts and the EERE Program to give them advice.

Senator BARRASSO. Mr. Woods.

It's a big dollar figure. It's 2 weeks away. We just saw what happened with Solyndra where people in the government were saying things are good, things are good. I think one person—well, there were a couple of hiccups or a couple little speed bumps—but people in government were saying everything is fine. The American people know it's not. It seems it was a rushed loan. Now they're looking at another \$10 billion.

Mr. WOODS. Right. Thank you, Senator.

If I'm confirmed before those decisions are made I will look at the transactions that are before the Department and ensure that my office has done the work necessary to make sure that they've been done in compliance with the law.

Senator BARRASSO. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Murkowski, did you have anything else?

Senator MURKOWSKI. I just want to understand this a little bit better. It's my understanding that within the Department of Energy the Loan Guarantee Department is its own structure. You've got a group of former investment bankers, the financial guys, the wizards there that access the applicant's background and do the vetting that Senator Barrasso has been talking about and clearly failed in this one.

Mr. Woods or Dr. Danielson? Can either of you inform me how, within the Department of Energy, the Loan Guarantee Program intersects with the General Counsel's Office, intersects with EERE, intersects with ARPA-E? My concern is we have a colossal failure within the Department of Energy with regards to this loan guarantee. It's calling into question every loan guarantee that has been

issued and quite clearly any future loan guarantees that will go forward.

It would appear to me that we've got some structural issues that we need to be dealing with. Can you educate me a little bit further in terms of what you think needs to be done to make sure that we are never in this situation again? I guess this is from a process perspective.

Either one of you?

Mr. WOODS. Thank you, Senator. I'd be happy to start us off.

As I understand it there's an office within the Office of Chief Counsel that works to support the Loan Guarantee Program, a team of attorneys who review the transaction documents and help to negotiate them to ensure that they are consistent with the business deal that's been struck. That work to review to ensure that the transactions are done in compliance with the law. I don't believe the General Counsel's Office has anything to do with, I'll call the underwriting process or analysis of the financial merit of the transaction. I'm not sure which office is responsible for that. But I think it is outside the Office of General Counsel.

Senator MURKOWSKI. Do you know, Dr. Danielson?

Mr. DANIELSON. Thank you for your question, Ranking Member Murkowski.

In that I have not had experience with the Loan Guarantee Program before and that it is not under the direct purview of EERE, I'm not intimately familiar with their processes. But if confirmed I would promise to you and to this committee that anything that EERE could do to serve the Loan Guarantee Program in its analysis would be offered up.

Senator MURKOWSKI. It would seem to me that you've got to have some kind of intersect or relationship with the Loan Guarantee Office. They're not operating in a vacuum where they're just kind of reviewing the financial paperwork. They need to know from, I'm assuming, the experts within your Department, if confirmed, or within ARPA-E that this company has something that is even possible. You have to be the one that says this is a good opportunity for us. This is one that really does need that extra push and we can get it to stand on its own. This is one worth taking the risk for.

Are you saying that you don't have that kind of relationship within the Department?

Mr. DANIELSON. Thank you for your question.

No, I'm not saying that it doesn't exist. I'm saying I'm just not aware of the detail of flow of the process. I would, if confirmed, I would be more than happy to, either way, I'd be more than happy to follow up with you on how that process, what that process structure is today.

Senator MURKOWSKI. I guess I'm less than assured by your response. It has been my understanding that if you have departments or divisions within the Department that are focused on helping to build out some of this innovative technology, that you would be working within the Department within those available programs which are the Loan Guarantee Programs that we set up through EPACT 2005, that there would be a real nexus between what you're doing and what they're doing so that everybody understands.

I'm hoping that the finance guys are not just checking the boxes and saying, "OK, this one meets the financial criteria" without checking in with you to make sure that this is something that we even need and/or want and vice versa. I'm hoping that you're not sending up something that doesn't meet the financial criteria, which apparently in this case was what we saw with Solyndra. So I'm going to do a little more digging in terms of how things are structured within DOE right now because, right now, I don't have the level of confidence that I want to have in ensuring the full faith and credit of what we're offering up through the Department of Energy.

When we're putting taxpayer dollars at risk we want to know for a fact that we've got systems that work.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you all very much for your testimony. We appreciate your willingness to serve in the Administration. We hope we can act on your nominations very soon.

That will conclude our hearing.

[Whereupon, at 11:12 a.m., the hearing was adjourned.]

APPENDIX

RESPONSES TO ADDITIONAL QUESTIONS

RESPONSES OF GREGORY H. WOODS TO QUESTIONS FROM SENATOR MURKOWSKI

Achieving the President's National Export Initiative goal for expanding U.S. exports will substantially contribute to the domestic economy in terms of employment, tax revenues and technological innovation. Based on your previous experience with international business issues while at Debevoise and Plimpton, you are familiar with many of the competitive pressures that U.S. firms face in the international marketplace. DOE's Office of the General Counsel will be asked to promulgate regulations and develop policies that have direct impact on the competitiveness of U.S. commercial nuclear suppliers in the global market.

Question 1. Foreign nuclear firms typically have the full backing of their national governments through direct investment and/or seamless and extensive public-private partnerships that promote the expansion of their national nuclear supply chain, including services. To date, U.S. policies and programs related to civil nuclear exports have been a patchwork of uncoordinated efforts and sometimes conflicting policies. As the General Counsel at the Department of Energy, would you agree that U.S. government policies should support the competitiveness of the U.S. commercial nuclear industry in the global nuclear market?

Answer. Yes.

Question 2. U.S. suppliers of nuclear commodities and services have repeatedly voiced frustration that the byzantine and expansive U.S. nuclear export control system imposes major competitive disadvantages on U.S. suppliers competing with state-owned international rivals. The U.S. Department of Energy has jurisdiction over nuclear technology exports under 10 CFR 810, which legal experts have found is more restrictive, complex and time-consuming than that of foreign nuclear supplier nations. Would you agree that this regulation should be streamlined to focus exclusively on the transfer of technology that would pose a significant security risk?

Answer. I understand that 10 CFR 810 implements the statutory framework established in section 57 b. of the Atomic Energy Act (42 U.S.C. § 2077). If confirmed, I would work to ensure that those regulations function as efficiently as possible within the statutory framework.

Question 2a. Delays in the licensing of exports can amount to a significant commercial disadvantage for suppliers that have slower regulators. DOE often takes over 1 year to process specific authorizations for commercial nuclear transfers under 10 CFR 810. Would you agree that these delays are unacceptable and that DOE should undertake a thorough review of DOE's authorization process to improve its efficiency?

Answer. I agree wholeheartedly that it is important to eliminate unnecessary delay in this process and that the Department should strive to improve its efficiency. If confirmed as General Counsel, I would work closely with the Committee to ensure that these regulations function as efficiently as possible.

The Department recently issued proposed amendments to Part 810, the first comprehensive updating of the Department's export control regulations since 1986 (76 Fed. Reg. 55278). I understand that many of the proposed revisions to the rule respond to industry requests that the existing rule be clarified and streamlined. If confirmed, I would look forward to receiving comments on the proposed rule by the U.S. nuclear industry and other interested parties, and would work to finalize a revised Part 810 as soon as possible.

Question 3. In the wake of the recent Fukushima accident, certainty in international nuclear liability arrangements is critical to allow U.S. suppliers to enter key international markets. The Convention on Supplementary Compensation (CSC) is the only international liability regime that the U.S. is able to join and, as such, its entrance into force is vital for U.S. suppliers. Would you agree that the U.S. government should do more to bring the CSC into force?

a. As part of the implementing legislation for the CSC, the Department of Energy was tasked with developing a Retrospective Risk Pooling Program (RRPP) that allocate U.S. costs to suppliers in the event that there was ever a call for damages under the convention. What is your view on the importance of reliable data to inform the development of rules that are both rational and do not hinder the competitiveness of U.S. suppliers?

b. Since the Convention is not in force, what is your view on the wisdom of continuing the CSC RRPP rulemaking before supporting data is collected and analyzed?

Answer. While I am not familiar with the specifics of the CSC and the Department's rulemaking to develop a Retrospective Risk Pooling Program, I understand that the U.S. Government supports widespread adherence to the CSC and has been actively pursuing and encouraging other nations to ratify the CSC and bring it into force. If confirmed as the Department's General Counsel, I would support those continued efforts by the U.S. Government.

I understand that the Department is acting under a statutory mandate to issue a CSC RRPP rulemaking (42 U.S.C. §17373(e)(2)(C)(i)). As a general matter, I do not believe that rulemakings should be issued without development and analysis of a complete factual record. If confirmed as General Counsel, I would work to ensure that any rulemaking on this issue by the Department will have a rational basis in fact and law, will be fair and equitable, and will not unnecessarily hinder the competitiveness of U.S. nuclear suppliers in the global nuclear market.

RESPONSES OF DAVID T. DANIELSON TO QUESTIONS FROM SENATOR STABENOW

Question 1. In its budget justification for fiscal year 2012, the Department singled out funding for non-ARRA supported SuperTruck awards for potential deferral or rescission. This program supports critical research and development among commercial vehicles and any changes to existing funding commitments would jeopardize important strides being made to improve the fuel economy of these vehicles, especially in light of the mandated standards on this sector of vehicles. Does EERE plan to honor all the SuperTruck awards it has made from both ARRA and discretionary fiscal year 2010 funding?

Answer. Yes, the Department plans to continue funding all SuperTruck awards and the ARRA-supported SuperTruck awards are fully-funded. SuperTruck projects incorporate multiple vehicle technologies (e.g., hybridization, lightweighting, combustion, etc.), so several Vehicles Technology Program (VTP) key activities will provide funding to support this effort and there is some flexibility to change the level of support by specific technology area, depending on availability of funds.

Question 2. Enforcement actions, like the one in 2010 that banned certain foreign manufacturers from using the ENERGY STAR label on refrigerators, demonstrated DOE's commitment to protect the ENERGY STAR and federal appliance standard programs.

However, recent reports suggest that problems persist. Just last month, an investigation by Consumer Reports revealed certain foreign manufactured refrigerators under-report energy use by more than 50% , with one foreign model potentially unable to meet even federal minimum standards. What are your response to these troubling reports? How would the Department respond under your guidance? How would you describe your overall commitment to the enforcement of rules to ensure consumers are given truthful information, and manufacturers compete by the same rules?

Answer. Since DOE began enforcing energy efficiency standards, manufacturers have certified compliance with the efficiency standards for over 700,000 models of consumer products and commercial and industrial equipment. DOE has set up a process for determining compliance with both the ENERGY STAR specification and DOE Federal energy conservation standards. Any ENERGY STAR model that is found to be non-compliant with Federal energy conservation standards is subject to enforcement actions by DOE and any model that is found to not meet the ENERGY STAR specifications is referred to the Environmental Protection Agency (EPA) for action.

During an investigation, DOE typically discusses the product with the manufacturer, reviews manufacturer test data underlying certified ratings, and undertakes additional testing, if needed. DOE initiates enforcement investigations upon receiving complaints from interested parties, including manufacturers, regarding potential non-compliant products. For example, last year DOE investigated three refrigerator-freezers claimed by Consumer Reports to fail either ENERGY STAR requirements or federal standards. DOE determined, through testing in accordance with federal

test procedures, that all three models met both the ENERGY STAR requirements and the federal standards.

This year, DOE adopted new regulations permitting the Department to perform a single test on a product to determine whether further investigation of the product is warranted. This “assessment test” is a new investigatory tool to help the Department monitor compliance. Prior to any penalty action, DOE conducts additional testing and provides the manufacturer with notice of potential pending penalties. The new regulations also permit DOE to test units obtained from retail sources so as to ensure the units tested are representative of the units a consumer would purchase.

Question 3. In DOE’s budget request for FY 2012, what criteria did the Department use to justify the recommended shift of funding from the recently awarded Advanced Technology Powertrains for Light-Duty Vehicles (ATP-LD) program, all of which were private sector/academic partnerships that will increase fuel economy in light duty vehicles, in favor of a computational modeling project that will take place at a National Laboratory? What are the projected fuel economy gains of the current ATP-LD projects versus the computational modeling project, and over what time period will these fuel economy gains be achieved?

Answer. The goal for these projects is to develop technologies by 2015 that can increase the fuel economy of gasoline vehicles by 25% and diesel vehicles by 40% when compared to a 2009 baseline gasoline vehicle. These improvements will be achieved by increasing the efficiency of the internal combustion engine.

The complexity of engine combustion and the revolutionary approaches needed to further increase engine efficiency and allow for increased use of alternative fuels require the Department to develop simulation codes and computation platforms that are far more advanced than those available today. Projects for the proposed large scale computational simulations of combustion would be competitively selected. Awardees would typically be required to provide a 50% cost share and would most likely include teams consisting of industry, national laboratories, and universities. The large scale computation projects would provide the design tools for industry to improve engine efficiencies by 30-50% at a third of the development time needed currently. As a result of these projects, introduction of more fuel efficient, environmentally compliant engines in our national fleet of on-highway passenger and commercial vehicles could begin to take place in 2017 and would enable potential national savings of over 5 million barrels of oil per day, equivalent to \$500 million per day, at today’s prices¹.

RESPONSES OF DAVID T. DANIELSON TO QUESTIONS FROM SENATOR SHAHEEN

The efficiency community and industry are particularly concerned with DOE/EERE’s support of US manufacturing moving forward, particularly the Industrial Technologies Program (ITP). We have been hearing more of a focus on R&D rather than commercialization. Both are critical, but commercialization should not be left out nor its impact for jobs ignored.

Question 1a. Will commercialization of existing technologies still be a priority for you as Assistant Secretary?

Answer. Overcoming market barrier continues to be an important part of EERE’s ongoing work. ITP’s focus on R&D is directed at the higher Technology Readiness Levels (TRL 3-6) and not at basic research and development (TRL 1-2). Attainment of the nation’s long-term industrial energy efficiency, economic competitiveness, and environmental performance goals will require the kind of significant breakthroughs achievable only through the innovation of new industrially-relevant and scalable manufacturing processes and materials technologies. By investing in later-stage scale-up and manufacturing technologies, ITP promotes both the domestic manufacturing sector and job creation. This effort is complementary to DOE’s continued investment in technology deployment and commercialization.

ITP is also aiding commercialization through Superior Energy Performance (SEP)—a market-based, American National Standards Institute-accredited certification program that provides industrial and commercial facilities with a roadmap for continual improvement in energy efficiency while boosting competitiveness. A key goal of SEP is to foster a corporate culture that recognizes the importance of improving energy efficiency, which, in turn, will accelerate commercialization of existing energy efficiency technologies and best practices.

Finally, ITP is evolving its industrial partnership program to align it with President Obama’s Better Buildings Challenge—a national leadership initiative calling on chief executive officers, university presidents, and state and local leaders to cre-

¹ http://science.energy.gov/-/media/bes/pdf/reports/files/PreSICE_rpt.pdf

ate American jobs through energy efficiency. As the industrial component of the Better Buildings Challenge, the Better Buildings, Better Plants initiative will provide greater integration for ITP's commercialization efforts across the industrial and commercial sectors. Participating companies will receive access to technical assistance on how to develop an energy use baseline, track progress against that baseline, identify energy saving opportunities, and evaluate new technologies that could be purchased to capture those opportunities.

Question 1b. How do you plan to engage industrial stakeholders (i.e., trade associations and companies) in planning the ITP's direction?

Answer. ITP considers stakeholder engagement to be an important element of its planning processes and is in regular communication with companies, trade associations, utilities, states, national labs and academia. For example, meetings were recently held with the American Council for an Energy-Efficient Economy (ACEEE) and the Alliance for Materials and Manufacturing Excellence (AMMEX), an alliance representing a range of companies and labor organizations in the materials manufacturing sector—aluminum, chemicals, forest products, glass metal casting and steel, along with several non-profit stakeholders.

Over the past 18 months, ITP has worked with the United States Energy Association on a major industry consultation effort to seek stakeholder input on strategies for accelerating combined heat and power (CHP) deployment in the United States. ITP has also conducted a series of regional education workshops with the Industrial Energy Consumers of America, bringing together manufacturers and utilities to discuss market barriers to CHP implementation.

ITP is also participating in the first regional Advanced Manufacturing Partnership outreach meeting, to be held by the President's Council of Advisors on Science and Technology Working Group on Advanced Manufacturing at the Georgia Institute of Technology on October 14, 2011.²

Question 1c. Under the severely constrained budgets that seem on their way, do you support keeping a broad portfolio of both R&D and deployment programs? Do you recognize the critical government role in deployment as well as R&D?

Answer. ITP's efforts on both R&D and deployment are strategically focused to maximize their respective impacts throughout the industrial sector. ITP's R&D efforts are focused on developing and demonstrating new, energy efficient manufacturing processes and materials technologies at a convincing scale. In order for manufacturing processes projects to become part of ITP's portfolio, they will need to be broadly applicable, reduce energy intensity, and efficiently direct energy to the task of forming the product. Likewise, in order for materials technologies projects to become part of ITP's portfolio they will need to focus on materials that will be pervasive; reduce life-cycle energy requirements; and result in low-cost, high-performance products.

Currently, ITP is soliciting applications for projects under its Innovative Manufacturing Initiative (IMI)—a 3-year, cost shared R&D funding opportunity to advance the development of transformational manufacturing and materials technologies that could enable a doubling of energy productivity in U.S. industry, revitalize existing manufacturing industries, and support the development of new products in existing and emerging industries. In order to achieve maximum effectiveness in a constrained budget environment, ITP plans to co-invest with other government programs at the Department of Energy and the Department of Defense.

Specific to deployment, ITP continues to invest in and leverage a suite of industrial energy efficiency tools, training, technical assistance, and recognition to enhance the scope and speed of improvement in energy management among manufacturers.

ITP's Industrial Assessment Centers (IACs)—a collection of 24 university-based programs throughout the country that provide engineering students with extensive training in industrial processes, energy assessment procedures, and energy management principles—address energy efficiency improvements at small and medium-sized industrial and manufacturing facilities. As a result, the IAC program helps local companies and factories reduce waste, save money, and become more economically competitive through energy efficiency improvements while also helping students become the next generation of leaders in energy efficiency.

Through Superior Energy Performance (SEP)—a market-based, American National Standards Institute-accredited certification program—ITP promotes standards as a means of providing industrial and commercial facilities with a roadmap for continual improvement in energy efficiency while boosting competitiveness.

Finally, ITP is evolving its industrial partnership program to align it with President Obama's Better Buildings Challenge—a national leadership initiative calling

²<http://www.whitehouse.gov/administration/eop/ostp/pcast/amp/meetings>

on chief executive officers, university presidents, and state and local leaders to create American jobs through energy efficiency. As the industrial component of the Better Buildings Challenge, the Better Buildings, Better Plants initiative will provide greater integration for ITP's commercialization and deployment efforts across the industrial and commercial sectors.

Question 2. One of the areas that of interest to me is the retrofitting of our existing building stock to improve their efficiency and cut energy costs. Buildings account for 40% of our total energy use and unlocking the potential that exists in retrofitting existing buildings could make serious progress in addressing our energy challenges.

A key barrier for building retrofits is access to capital, which is why we included a provision in S. 1000 which would expand the existing DOE Loan Guarantee Program to cover building retrofits and unlock private capital to help finance these efficiency projects. DOE has yet to take a position on this provision and I would appreciate if you would get back to me in writing with your thoughts on this provision.

Answer. While the Administration does not yet have a position on S.1000, it is my understanding that the Administration does believe that federal financing may be an appropriate tool to leverage private sector investment and stimulate energy efficient building retrofits, as evidenced by the President's 2012 budget, which requests \$105 million to create a pilot program to provide loan guarantees to finance such retrofits for Hospitals, Schools, and Universities. I support the President's budget request and agree that improving the energy efficiency of our existing building stock can help save energy and save money for consumers and businesses.

Question 3. At the request of DOE and the Administration, several stakeholders submitted the attached report last January detailing how the existing DOE Loan Guarantee Program could be utilized to cover retrofits of existing buildings without requiring new legislation. As noted in the report, the term "efficient end-use technologies"—a phrase currently used in Section 1603, under the list of projects eligible for loan guarantees—would allow for a pilot LG program for building retrofits. Please see pp. 7-9 of "Existing Authorities" report.

a. Based on this interpretation of existing authority, does DOE believes it has the current program authority for a building retrofit loan guarantee pilot program. If not, why not?

Answer. LPO is authorized to provide loan guarantees in support of "efficient end-use energy technologies" (Section 1703(b)(7)). LPO believes that building retrofit projects intended to enhance energy efficiency should generally qualify as "efficient end-use energy technologies".

However, Section 1703 has an "innovativeness" requirement, meaning that the Section 1703 program can only support projects using energy efficiency technologies that are "new or significantly improved," as compared to commercial technologies currently in service in the United States.

Thus, the 1703 program, as currently written, would not be an option for projects seeking to conduct building retrofits using conventional energy efficiency technologies. Additionally, a building retrofit program would likely have to be administered and operated differently from the existing Section 1703 program, potentially creating administrative and operational challenges. For example, the necessary financial due diligence conducted by the program would likely be cost-prohibitive for a single-building retrofit project.

Question 3b. If DOE does not believe it has current 1603 program authority, then why doesn't the Department more actively support the loan guarantee language as set forth in S. 1000—which would clearly give DOE the retrofit LG authority it thinks it currently lacks?

Answer. While the Administration does not yet have a position on S.1000, it is my understanding the Administration does believe that federal financing may be an appropriate tool to leverage private sector investment and stimulate energy efficient building retrofits, as evidenced by the President's 2012 budget, which requests \$105 million to create a pilot program to provide loan guarantees to finance such retrofits for Hospitals, Schools, and Universities.

Question 4. With dramatically shrinking Federal facility budgets and ambitious energy efficiency goals, will you be supportive of greater use of energy savings performance contracts and other private sector financing arrangements to upgrade federal facilities and reduce the government's energy bill?

Answer. The use of energy savings performance contracts (ESPCs) and other private sector financing arrangements is a key mechanism for achieving our goals of upgrading federal facilities and reducing the government's energy bill. The August 16, 2011 memo issued from OMB and CEQ to Agency Senior Sustainability Officers, Supporting Energy and Sustainability Goal Achievement Through Efficiency and Deployment of Clean Energy Technology, confirms the Administration's support of

the increased Federal use of ESPCs. The Office of Energy Efficiency and Renewable Energy's Federal Energy Management Program is actively engaged in supporting Federal agencies use of ESPCs, utility energy savings performance contracts, and other project funding mechanisms.

Question 5. I have noted on many occasions that energy efficiency should be a part of a clean energy standard; however, it was notably absent in the White House's original proposal. Since that time, White House and DOE staff have told us that their position on efficiency is still "evolving" and that a CES may be able to include efficiency technologies, like combined heat and power and waste heat recovery. Do you feel that ready-to-go energy efficiency technologies should be included as part of any Clean Energy Standard proposal?

Answer. As envisioned by the President, a Clean Energy Standard (CES) would be designed to be technology neutral. By defining clean energy very broadly to include renewables, nuclear power, efficient natural gas, and coal or natural gas with carbon capture and storage, a CES is consistent with a very large number of possible technological pathways, letting the market, rather than government, select the technologies that can best meet the target. This is a flexible approach that taps American ingenuity and innovation to enhance our energy security. Energy efficiency has a central role to play in meeting our clean energy goals, which is why the President has supported and proposed a range of programs to promote greater energy efficiency in America's homes, factories, and commercial buildings, including the HOMESTAR program and the Better Buildings Initiative. As Congress considers the President's CES proposal, if confirmed, I would be happy to work with you and your colleagues to determine how to most effectively incorporate energy efficiency into a CES.

Question 6. Affordable and reliable electricity supplies are vital to the competitiveness of U.S. businesses and in particular to U.S. manufacturers. We know that energy efficiency measures, such as Combined Heat and Power, can effectively achieve both goals. Can you describe the benefits that CHP offers to manufacturers and the size of the opportunity to widely deploy CHP in this country?

Answer. Combined heat and power (CHP) benefits manufacturers in a variety of ways. Most notably, CHP generates both the heat and power needed for industrial processes on-site, offsetting the use of electricity from the grid, and can be nearly twice as efficient as conventional heat and power production. By making use of heat produced during power generation on-site, CHP avoids losses from the generation and transmission of energy off-site. CHP also offers flexibility in fuel selection and can take advantage of both fossil fuels and locally-sourced and renewable fuels. In these ways CHP reduces the risk of both power disruptions and price uncertainty. Overall, in addition to reducing carbon dioxide emissions and improving energy efficiency, CHP helps to enhance energy reliability and security by diversifying our generation portfolio and lessening stress on our transmission and distribution system. CHP is also one of the most cost-effective options to improve the competitive position of American industries and manufacturers.

The opportunity to increase the deployment of CHP in the United States is substantial. According to the 2008 report issued by the Oak Ridge National Laboratory, CHP comprises 8.6% of US generating capacity. Approximately 12 other countries have a higher share of their power production from CHP³. In that same report, it was shown that, if the US were to achieve 20% of its electric production capacity from CHP, over five quadrillion British thermal units (BTUs) of fuel would be saved, or nearly half of all the fuel consumed by U.S. households.

Question 7. I am concerned that despite the sizable opportunity presented by CHP, the technology has not been deployed as widely as possible. A 2008 study by the Oak Ridge National Labs identified a variety of challenges to wider CHP use, some technical and some regulatory. What steps can EERE take to address these issues?

Answer. EERE is currently taking steps to resolve technical issues inhibiting broader adoption of CHP through a competitively selected research and development program, particularly for small (~500 KW) to mid-sized (~5 MW) systems. In addition, through sponsorship of nine regional Clean Energy Application Centers, EERE is working at the local and state levels to identify and address the policy and regulatory barriers that prevent CHP systems from being more widely adopted. This latter activity is closely coordinated with activities of the DOE/EPA State and Local Energy Efficiency Action Network. By convening interested parties in relevant states through these activities, EERE is helping to build a compelling case on the benefits of, and methods for promoting, CHP adoption throughout industry.

³"Combined Heat and Power: Effective Energy Solutions for a Sustainable Future," ORNL, December 1, 2008, p. 22.

Question 8. Through Clean Energy Application Centers, EERE provides technical assistance to end-users seeking to install CHP, and to date DOE has supported nearly 350 CHP projects. What is DOE's commitment to these efforts and how do you think we can expand on them?

Answer. EERE currently sponsors nine Clean Energy Application Centers—eight covering the 50 States and Puerto Rico, and one devoted to increasing deployment of clean district heating systems. The Clean Energy Application Centers were selected following a competitive solicitation issued in 2009 and are under contract through 2013. EERE intends to continue supporting Clean Energy Application Centers in future fiscal years, and will also pursue performance reviews to determine the extent to which expansion of the program is warranted.

Question 9. There is currently a tax deduction for energy efficient commercial buildings at Section 179D of the Internal Revenue Code, which was enacted as part of the Energy Policy Act of 2005. Many believe that the 179D deduction has been underutilized since its enactment because it is too difficult to meet some of the requirements. Among other things, 179D directs the DOE to develop prescriptive regulations for how the incentive can be best used for HVAC, window and roof retrofits. Such regulations could provide much needed clarity on how the 179D incentive could be better used in its current form. What is the current status of DOE's efforts to draft these regulations and when does the Department plan to issue them?

Answer. Statute 179d of the Internal Revenue Code directs the Secretary of the Treasury to draft regulations on the application of a building efficiency deduction to the tax code. The Department of Energy has met with Treasury and IRS staff on multiple occasions to discuss the current IRS regulation. If confirmed, I will continue to work on this issue and will assist the Treasury on any changes they choose to make in the current rule.

RESPONSES OF DAVID T. DANIELSON TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. In August 2008, I understand you posted a note on the MIT Energy Club's blog touting a number of new energy policies in Massachusetts. You finished that post by suggesting what you believe are the ideal elements of a national clean energy policy, including a cap-and-trade system and mandates for clean fuels and electricity. Is that still your vision of what the United States' energy policy should look like? Has anything changed over the past three years, or are you still pretty comfortable with that post?

Answer. As I did at the time of authoring the blog post to which you refer, I continue to believe that a comprehensive and stable national energy policy is critical to creating an environment in which the U.S. private sector can rapidly develop and deploy advanced energy technologies to reduce our oil imports, improve the nation's security, create new American jobs, and reduce energy-related emissions. I am supportive of the President's goals of reducing U.S. oil imports by one-third by 2025; implementing the automobile efficiency standards he has enacted that increase corporate average fuel economy to 35.5 mpg in 2016 and 54.5 mpg by 2025; putting 1 million plug-in vehicles on the road by 2015; decreasing energy usage in commercial buildings by 20%; and enacting his proposed Clean Energy Standard, which would aim to increase the amount of clean electricity on the U.S. grid to 80% by 2035 and would include renewables, nuclear, coal with carbon capture and storage, and efficient natural gas.

Question 2. High oil prices are one of the reasons our economy is slipping back towards a double-dip recession. Can you describe your views on how we can reduce those prices? Do you believe supply matters? Would it be economically beneficial for our nation to tap into more of its abundant natural resources, in place like Alaska and offshore?

Answer. On March 30, 2011, President Obama announced a comprehensive energy plan to reduce the amount of oil we consume as a Nation in his "Blueprint for a Secure Energy Future." The Blueprint includes the goal of reducing our oil imports by one-third by 2025 through reducing our oil consumption by improving the fuel efficiency of our cars and trucks, by switching to alternate fuels, and by producing more domestic oil. I support the President's plan and believe it will both reduce our dependence on foreign sources of oil and put downwards pressure on oil prices by reducing our oil demand.

An important part of President Obama's energy plan is to promote oil development in selected areas of Alaska and certain offshore areas in the continental United States. In Alaska, the Federal government has already initiated leasing and development of selected lands offshore while leaving other lands off-limits for development due to environmental sensitivity. To ensure that development in Alaska fully considers all points of view on development the President issued an Executive

Order on July 12, 2011 creating an Interagency Working Group on coordination of domestic energy development and permitting in Alaska. In this order, the President stated that, “Interagency coordination is important for the safe, responsible, and efficient development of oil and natural gas resources in Alaska, both onshore and on the Alaska Outer Continental Shelf (OCS), while protecting human health and the environment, as well as indigenous populations.

Question 3. You came to the federal government from the world of venture capitalism, and for the past several years, you’ve been at ARPA-E. Do you think the federal government’s support policies for clean energy are appropriately oriented? What would you do to improve these policies?

Answer. The government plays a key role in supporting domestic clean energy industries that can out-innovate and out-compete the industries of any country in the world. EERE works hard to ensure that the projects it undertakes are in the areas of greatest interest to U.S. businesses and insists that industry participate with increasing levels of cost share as basic concepts approach a point where proprietary products emerge. But the industry has been clear that in order to compete with determined foreign competitors who receive strong financial support from their governments, they need the U.S. government to help them in key areas like advanced research, regulations that encourage innovative solutions, and, in some cases, early stage financing for first-of-a-kind production. Nearly all the key technologies underlying today’s clean energy equipment are the direct result of federal research support—including EERE research—made over the past several decades.

Well-crafted federal programs are essential to spurring private innovation and investment, so EERE measures success by whether its work translates into a successful U.S. business opportunity—when a company can take a concept developed with EERE funding and make it a commercial success.

Question 4. Earlier this week, the American Energy Innovation Council released a new report suggesting a number of reforms for the Department of Energy. One is that ARPA-E should be expanded. Do you agree that ARPA-E should play a larger role in the Department’s future? What do you believe that role should encompass?

Answer. Having been a Program Director at ARPA-E since its creation in April 2009, I am a true believer in its potential to develop game-changing new energy technology pathways that could dramatically lower U.S. oil imports, increase our energy security, create large numbers of U.S. jobs, and decrease energy related emissions. I believe both ARPA-E and the Office of Energy Efficiency and Renewable Energy (EERE) will and should play a large role in the Department’s future and I believe that ARPA-E and EERE play highly synergistic and complimentary roles within the Department of Energy. ARPA-E’s role at the Department of Energy is to explore and validate completely new high-risk energy technology learning curves that have a high probability of failure, but that if successful could leapfrog the technologies that are on today’s learning curves. The role of the EERE is to identify the most promising new technologies that emerge from ARPA-E and other sources of U.S. energy science and technology innovation and, in partnership with the best and the brightest from the U.S. private sector, national laboratories, and U.S. universities, provide the support required to rapidly drive these advanced new energy technologies to the performance and unsubsidized cost levels required for widespread commercial adoption.

Question 5. As you know, we have a Super Committee that’s been tasked with reducing federal deficits by \$1.5 trillion over the next 10 years. Just about every option appears to be on the table. Within our jurisdiction, we have significant opportunities for revenues from new resource production, but we may also see EERE and other program offices returned to pre-stimulus funding levels. Do you have any comment on that possibility? If EERE’s budget is reduced, what do you think will be most important for it to focus on?

Answer. The President’s budget request includes funding levels for EERE programs that would provide the resources to help meet our nation’s energy goals, while growing our economy and keeping America competitive in the 21st century. Recognizing the need to exercise budget restraint, the President rebalanced investments in the FY12 request to reflect a very clear and deliberate investment in Department of Energy programs with the most direct impact on meeting our nation’s energy goals.

Question 6. As a program director at ARPA-E, you have significant experience with energy storage technologies, which are widely seen as critical to boosting the use of renewable energy. Please describe how you believe the federal government can best promote the development and use of energy storage technologies.

Answer. Energy storage technologies are indeed critical to boosting the use of renewable energy. They will help increase the penetration of renewable energy on the grid and enhance existing electric system assets, increasing the reliability of elec-

tricity transmission and distribution. To minimize the unreliability associated with the intermittent nature of certain forms of renewable energy (e.g., solar and wind), energy storage will address three critical functions: regulation, ramping/load following, and bulk energy management.

In order to respond aggressively to meet the pressing future needs for energy storage, DOE activities are being coordinated by an energy-storage working group consisting of senior leadership and technology experts from all relevant programs—including the Offices of Science/Basic Energy Science, Energy Efficiency and Renewable Energy (EERE), the Advanced Research Projects Agency—Energy (ARPA-E), Electricity Delivery and Energy Reliability, as well as both the Offices of the Under Secretaries for Energy and for Science.

The DOE approach is to accelerate research and demonstration to minimize inefficiencies, and to anticipate industry needs. DOE has outlined a number of specific short-term and long-term actions that should be undertaken to meet long-term energy-storage targets.

Short-term actions lasting five years or less include advanced research and development of alternative materials for energy storage devices, setting standards and metrics (including analyzing requirements related to frequency response times), simulation/modeling (including projecting and assessing the impact on grid performance), demonstrations, and deployment facilitations.

Long-term actions (greater than five years) involve both actions in support of innovation as well as deployment. Innovation-focused actions include fundamental research into new materials, design of more effective storage technologies, research on self-balancing battery chemistries, and other advanced technologies. Long-term actions could include cost-shared large-scale deployment projects.

Working in collaboration with other stakeholders, DOE can support its important energy storage objectives and advance the nation's use of energy storage to derive the associated benefits—including advancing science and innovation, increasing the use of clean secure energy sources, enhancing economic prosperity, and reducing greenhouse gas emissions.

Question 7. One of the largest challenges to the deployment of electric vehicles is that we need batteries that are both far less costly and far more efficient. Some believe that lithium ion batteries can meet both of those goals, but quite a few others don't believe that's possible. Can you comment on your experiences with battery technologies, what you believe will be necessary for electric vehicles to succeed, and the role you believe the federal government should play in this area?

Answer. The Department of Energy (DOE) has a long and successful track record of battery technology development. DOE-developed battery technology is in all major electric drive vehicles on the road today.

Further R&D is needed, however. Current state-of-the-art lithium-ion batteries are adequate for initial product launches, but we must continue to improve battery performance and drive down costs to enable future commercial competitiveness of electric vehicles without consumer tax credits. A rich variety of new battery materials are currently being developed that will provide substantial improvement in the energy density and cost of lithium-ion batteries, and the electric vehicle market will likely be dominated by lithium-ion batteries for at least the next decade. However, broader market acceptance may require further improvements in battery technology. Thus, DOE is researching new battery concepts (such as lithium-air or lithium/sulfur batteries).

Global competition in advanced battery development is intense, and battery technology is evolving rapidly. Strong Federal support for R&D is needed to ensure that the U.S. maintains technology leadership. DOE supports a broad portfolio of electric drive vehicle battery R&D that spans basic research to applied development. The Office of Science/Basic Energy Science programs supports fundamental research on enabling materials through its Energy Frontiers Research Centers. The Advanced Research Projects Agency—Energy (ARPA-E) conducts transformational research on revolutionary, “game-changing” energy storage technologies. EERE battery R&D is focused on applied development and demonstration of advanced batteries to enable a large market penetration of electric drive vehicles. Finally, the Department envisions that an Energy Storage and Battery Hub it plans to establish in FY 2012 would complement these existing programs, integrating multiple disciplines in a single effort that could help speed the development of next generation energy storage technologies.

Question 8. Our committee staff has heard from several Energy Star stakeholders about the changing direction of that program. As you know, Energy Star is a well-regarded, voluntary program and a brand that many consumers look for when choosing home appliances and electronics. Will you work with the stakeholders to address any concerns they may have about the changing nature of the Energy Star?

Answer. DOE is the technical lead for the ENERGY STAR program through its development of product test procedures and support of the verification testing program. DOE remains committed to work with the Environmental Protection Agency (EPA) and stakeholders on creating and updating ENERGY STAR test procedures that are reflective of innovations in the market place and address manufacturers concerns with test procedures. As an example, DOE and EPA are working closely with the Association of Home Appliance Manufacturers (AHAM) and major refrigerator manufacturers in the development of test procedures to support Smart Grid capability in ENERGY STAR refrigerators.

Question 9. Alaska that has the potential, according to the Electric Power Research Institute, to generate 1,250 terrawatts of energy from tidal and wave energy—also known as marine hydrokinetics. As a Senator from Alaska, I'm extremely interested in making sure that some of our research dollars are allocated to this part of the water power industry to ensure that it not only survives, but thrives in the future. I notice that while you were at General Catalyst Partners you seemed more involved in wind, solar and biomass projects. What are your views about the future of marine hydrokinetics and what would you like DOE to do, if anything, to advance these technologies in the future?

a. I have legislation pending that would have DOE take over verification of new marine hydrokinetic devices and provide more robust funding for demonstration projects. What is your view about my legislation, S. 630? More generally, what do you see as the proper role, if any, for DOE and Congress to advance marine hydrokinetic technology? What can we do to help the industry get through permitting hassles and to pick up the pace of getting projects into the water nationwide?

Answer. As you know, Steve Chalk, EERE's Deputy Assistant Secretary for Renewable Energy, testified before your Committee on March 31, 2011, "If funding is realized under S. 630, development of MHK [marine and hydrokinetic] technologies would be accelerated, speeding their transformation from promising but fledgling technologies to commercially viable, clean, renewable energy sources." S. 630 would accelerate the growth of the MHK industry through additional federal aid, and expand the scope and scale of DOE's MHK activities. The additional funding authorized by S. 630 would represent a significant increase in DOE's program for MHK technologies, and is significantly higher than either the FY 2012 Budget Request of \$18 million or the FY 2010 Budget of \$37 million. The President's FY 2012 budget represents DOE's priorities for applied R&D in energy efficiency and renewable energy technologies.

DOE is currently working to support the design, development and testing of a variety of MHK systems, identifying key cost drivers and performance characteristics, and investing in technology improvement opportunities. DOE leverages its extensive expertise in technology development to identify and fund research in areas where industry currently lacks either the capabilities or financial resources. DOE is very optimistic that it can play a major role in helping industry commercialize this technology so it can make an impact in providing affordable energy options for Alaska and other regions of the country.

To address the current challenges of siting and permitting projects in U.S. waters, DOE organizes an ad-hoc interagency working group for offshore renewable energy, under the Interagency Working Group on Ocean Partnerships (IWG-OP), chartered by the Joint Subcommittee on Ocean Science and Technology. Participants, which include NOAA, DOI's Bureau of Ocean Energy Management, FERC, Navy, Coast Guard, EPA, Army Corps of Engineers, and Fish and Wildlife Service, will continue ongoing information sharing activities, pursue opportunities for interagency research and development funding, and leverage support through the National Oceanographic Partnership Program. Through Broad Area Announcements under the National Oceanographic Partnership Program, DOE has also co-funded research projects to develop environmental protocols and monitoring strategies to support ocean renewable energy. Finally, DOE supports MHK siting and market acceleration activities through interagency MOUs. For example, in 2010 DOE and the Department of Interior's Bureau of Ocean Energy signed an MOU to spur deployment of offshore renewable energy projects, including those for wave energy. In January 2011, DOE and NOAA signed an MOU to facilitate collaborative work regarding modeling and forecasting for weather dependent renewables.

Question 10. Geothermal is also a technology that I think holds real promise to provide clean energy for the nation. What is your view about what Congress and the Administration can do to further geothermal's development? Are our current efforts sufficient, or is there more that we should be doing?

Answer. To further the development of geothermal energy, technologies must be developed that (1) reduce the cost and risk of identifying and characterizing undiscovered hydrothermal resources, and (2) enable the economical and sustainable extraction of heat from enhanced geothermal systems. The Department of Energy's research, development and demonstration efforts are focused on advanced exploration technologies and reservoir creation tools that address these two needs. Existing legislative authorizations, in combination with the Administration's FY 2012 budget request for Geothermal Technologies and loan guarantees, would likely be sufficient to advance and commercialize emerging geothermal energy technologies. With reduced risk and cost, it is also likely that the private sector would be more willing to provide financing at affordable rates—leading to an expansion of the geothermal industry.

Question 11. Back in 2007, in the Energy Independence and Security Act, we approved a program for renewable energy deployment grants to help renewable projects get 'over the hump', but the Department has never proposed any funding to implement the grants. What is your philosophical view on this? Is appropriate for the federal government to ever make grants available to help cover capital costs of a host of renewable technologies, especially in areas where electric rates are far above the national average? In Alaska, for example, there are towns where people are paying more than \$1 a kilowatt for diesel-fired generation. Don't we have some responsibility to help reduce those costs, which are about 10 times more than the average American pays for power?

Answer. Section 803, titled "Renewable Energy Deployment," of the Energy Independence and Security Act (EISA) allows 50:50 cost share of renewable energy construction grants. To date, the Department has not requested funding for Section 803. Many of the incentives to commercialize new technologies exist within DOE but outside of EERE, for example in the Loan Guarantee Program. The Department also works closely with other government agencies, such as the Internal Revenue Service and the Department of the Treasury to support commercialization via various tax policies.

However, R&D of innovative technologies is only effective if the market knows those technologies exist. Accordingly, under the Recovery Act, the Department made very large investments in renewable energy deployment on a 50:50 cost share basis through the State Energy Program and Energy Efficiency and Conservation Block Grant program. It is believed that these renewable energy projects will be effective in demonstrating economic feasibility and in laying the groundwork for States and communities to expand deployment.

Section 625 of EISA, titled "High Cost Geothermal Grant Program," authorizes DOE to conduct studies and demonstrations in regions with electricity costs in excess of 150% of the U.S. average. To date, the Department has not requested appropriations specifically for Section 625. However, in a recent Recovery Act competitive solicitation, we identified this authority as a special policy consideration in selecting projects. In future geothermal solicitations, DOE intends on utilizing this policy as a way to help people from regions with much higher energy costs than the rest of the Nation.

Over the last two years, the DOE has sponsored Brian Hirsch, a renewable energy expert at the National Renewable Energy Laboratory, to assist the State of Alaska in achieving its goal of 50% renewable energy generation by 2025. Mr. Hirsch has initiated studies in biomass utilization, district heating, wind energy and marine and hydrokinetic devices to provide advice to many Alaskan organizations and technical assistance to many remote tribes. If appropriations allow, DOE plans to continue this vital support to Alaska in bringing more affordable energy options to its citizens.

Question 12. Underground coal gasification has been pursued for nearly a century around the world and produces syngas that can be used in everything from power plants to stove-tops. Is the Department of Energy pursuing the deployment of underground coal gasification technologies, in addition to the more traditional gasification work of the agency? If not, should the Department be pursuing this technology more aggressively going forward?

Answer. I understand that DOE's Office of Fossil Energy (FE) is working to develop certain technologies, such as syngas cleaning, that will also be applicable to syngas from underground gasification (UG) systems. However, the Department of Energy is not currently pursuing an underground coal gasification technologies program. The Department continues to monitor national and international UG developments. The Department is committed to upholding the President's goals to expand America's innovative competitive edge through strategic investments in our Nation's clean energy research development and demonstrations (RD&D). While every Office within the Department has had to make difficult funding decisions in the current

fiscal environment, overall the Department continues to invest in the key enabling technologies that are on critical paths and that show the highest potential impacts on achieving the program goals and benefits in the time frame needed for deployment.

RESPONSES OF LADORIS G. HARRIS TO QUESTIONS FROM SENATOR MURKOWSKI

Question 1. You have a wealth of experience at various companies throughout a good portion of the energy spectrum. In your new position, you'll be focused on the economic impacts of energy prices, regulations, and other federal policies. Generally, can you describe whether you think low-cost energy should be a priority for our nation? Where would you rank its importance compared to other goals, such as making our energy supply cleaner?

Answer. Access to clean, affordable, secure, and reliable energy has been a cornerstone of America's economic growth. Affordable energy supports both quality of life and productivity across the economy and is critical to maintaining manufacturing competitiveness in the United States. In addition, increases in energy costs can have a disproportionate impact on lower-income families. However, I do not believe there should be a tradeoff between low-cost energy and clean energy. President Obama and Secretary Chu have made the development of low-cost clean energy a priority at the Department of Energy and I am fully supportive of these programs.

Question 2. Back in 2005 Congress authorized grant aid to Indian tribes and Alaska Native corporations to be provided by the Office of Indian Energy. The Department has made some grants, but the assistance for Native energy projects, both fossil fuel development and renewables, has been sparse and uneven. I know you will say that is the result of Congress not providing larger appropriations, but I also don't remember the Department in its budget submission ever seeking significant sums for the grants. They were authorized at \$20 million a year through 2016, but my memory is that DOE has never sought more than about \$6 million for the program. What can you do to advocate for more assistance for Native energy project development on Native lands?

Answer. The Office of Indian Energy (IE) is the Department's lead on implementation of the 2005 Energy Policy Act. If I am confirmed as the Director of the Office of Minority Economic Impact, I will partner with IE on tribal energy development and help build capacity in Indian Country via small business supported contracts. One of the core missions of the Office I will lead, if confirmed, is to be a Department-wide resource to support other program offices' outreach to underrepresented communities and to make these communities aware of opportunities that exist within the DOE. Additionally, if confirmed, I will use my experience in corporate America to ensure that the Office I will lead is actively engaged with other Departmental offices, including IE, to help increase the technical expertise that is available to Indian Country to aid in energy development. For example, the Office of Minority Economic Impact participates in DOE's Tribal Steering Committee, which regularly meets to discuss how the Department can better serve Tribal and Alaskan Native communities, and is an active participant in the Interagency Working Group on Indian Affairs which is intended to facilitate the collaboration of Federal agencies as they work on cross-cutting issues such as natural resource management and energy development.

a. Follow-Up: Title 5 of EPACT 05 also created a Department Indian Energy Loan program to provide loans of up to \$2 billion for projects on Native/tribal lands. I am unaware of the Department ever granting a loan to a reservation or Native corporation over the past six years. What is your view as to the importance of the loan program to aid minority development of energy projects?

Answer. The Office of Indian Energy (IE) administers the Indian Energy Loan program established in Title 5 of EPACT 05. If I am confirmed as the Director of the Office of Minority Economic Impact, I will work closely with IE to support its implementation of this program.

Question 3. Given the amount of energy that lies on tribal lands, notably coal in the American west and Alaska, but also hydrocarbons and other minerals, shouldn't we be doing more to help tribal and corporations develop their coal deposits in an environmentally safe manner, either through underground coal gasification that largely sequesters carbon underground, or by providing aid for coal-to-liquid plants with carbon sequestration that will permit the coal to be utilized profitably, while meeting the Administration's desires for carbon emission reductions? I know there is an underground coal gasification project being proposed on Native lands outside

of Anchorage right now, but am unaware of any DOE program to help it proceed. What are your views on whether the Department could help such a project proceed?

Answer. The DOE Office of Fossil Energy (FE) has the lead within the Department on advanced coal development and carbon capture and sequestration projects. If I am confirmed as the Director of the Office of Minority Economic Impact, I will work closely with FE and with the Office of Indian Energy (IE) to assess the viability of coal projects on tribal lands.

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