S. HRG. 115–369

COOPER AND GENATOWSKI NOMINATIONS

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

TO

CONSIDER THE NOMINATIONS OF MR. WILLIAM COOPER TO BE GENERAL COUNSEL OF THE DEPARTMENT OF ENERGY AND MR. LANE GENATOWSKI TO BE DIRECTOR OF THE ADVANCED RESEARCH PROJECTS AGENCY-ENERGY, DEPARTMENT OF ENERGY

AUGUST 16, 2018

Printed for the use of the
Committee on Energy and Natural Resources

Available via the World Wide Web: http://www.govinfo.gov

U.S. GOVERNMENT PUBLISHING OFFICE
31–318 WASHINGTON : 2018

COMMITTEE ON ENERGY AND NATURAL RESOURCES

LISA MURKOWSKI, Alaska, *Chairman*

JOHN BARRASSO, Wyoming
JAMES E. RISCH, Idaho
MIKE LEE, Utah
JEFF FLAKE, Arizona
STEVE DAINES, Montana
CORY GARDNER, Colorado
LAMAR ALEXANDER, Tennessee
JOHN HOEVEN, North Dakota
BILL CASSIDY, Louisiana
ROB PORTMAN, Ohio
SHELLEY MOORE CAPITO, West Virginia

MARIA CANTWELL, Washington
RON WYDEN, Oregon
BERNARD SANDERS, Vermont
DEBBIE STABENOW, Michigan
JOE MANCHIN III, West Virginia
MARTIN HEINRICH, New Mexico
MAZIE K. HIRONO, Hawaii
ANGUS S. KING, JR., Maine
TAMMY DUCKWORTH, Illinois
CATHERINE CORTEZ MASTO, Nevada
TINA SMITH, Minnesota

BRIAN HUGHES, *Staff Director*
KELLIE DONNELLY, *Chief Counsel*
MARY LOUISE WAGNER, *Democratic Staff Director*
SAM E. FOWLER, *Democratic Chief Counsel*

CONTENTS

OPENING STATEMENTS

WITNESSES

ALPHABETICAL LISTING AND APPENDIX MATERIAL SUBMITTED

COOPER AND GENATOWSKI NOMINATIONS

THURSDAY, AUGUST 16, 2018

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

The Committee met, pursuant to notice, at 10:20 a.m. in Room SD–366, Dirksen Senate Office Building, Hon. Lisa Murkowski, Chairman of the Committee, presiding.

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

The CHAIRMAN. Good morning, everyone.

The Committee will come to order.

We are here today to consider two nominees for the Department of Energy (DOE): Mr. William Cooper, to be General Counsel, and Mr. Lane Genatowski, to be Director of the Advanced Research Projects Agency-Energy. We know it around here as ARPA-E.

Welcome to you both. Thank you for your willingness to serve.

To our Committee members, we are happy to be back here in Washington, DC, in August. Not.

[Laughter.]

I can think of so many other places that I would rather be, should be. King Cove, Gustavus, Metlakatla, Valdez—those were all the places that I missed in this week, but that is my problem not yours. I know that you all have given up your time to be here, so I appreciate the fact that you are here.

Hopefully, we will be able to conclude our business expeditiously this morning, demonstrating once again that the Energy Committee is here to work, here to serve, any time of the year.

You may notice that I, as the founding member of the "Coalition of the Cranky," am going to continue in that honorary title. Gentlemen, with that, believe me I am not going to take it out on you. I do appreciate your willingness to serve. I also appreciate the opportunity to introduce both of you today and to hear from you as you respond to our questions. I will say that I am impressed with the experience and the qualifications that each of you bring to the table.

Mr. Cooper, if you are confirmed to be General Counsel, you will be tasked with providing legal advice to the Secretary and ensuring that the Department's operations are compliant with the law. This requires an independent individual who is committed to a careful interpretation of both the law and the precedent, regardless of how that advice may be received. That, in turn, requires both confidence

and backbone, but your years of experience in the House of Representatives and in private practice bode well.

I would note that we have received several letters in support of Mr. Cooper's nomination, and I would ask unanimous consent that those be added to the record of today's hearing. They will be.

[Letters of support for Mr. Cooper follow:]

AIR-CONDITIONING, HEATING, & REFRIGERATION INSTITUTE
we make life better®

2311 Wilson Boulevard Suite 400 Arlington VA 22201 USA
Phone 703 524 8800 | Fax 703 562 1942
www.ahrinet.org

August 13, 2018

Honorable Lisa Murkowski
Chair
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Honorable Maria Cantwell
Ranking Member
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

RE: William Cooper, Nominee for General Counsel, U.S. Department of Energy

Dear Senators Murkowski and Cantwell:

On behalf of the Air-Conditioning, Heating, and Refrigeration Institute (AHRI), I write in support of the nomination of William Cooper to serve as General Counsel at the U.S. Department of Energy (DOE).

AHRI represents over 300 member companies that produce more than 90 percent of the residential and commercial air conditioning, heating, water heating, and commercial refrigeration equipment made in North America. The work of DOE General Counsel is of great importance to AHRI, as we work closely with the Department on our performance certification program and on energy efficiency standards for many of our products. We would welcome Mr. Cooper's leadership at the Department and look forward to working with him closely to continue this important work.

As a senior staffer at two House Committees with substantive jurisdiction over energy policy, Mr. Cooper clearly has a deep understanding of energy policy and the regulatory process under which it is implemented. This knowledge base should serve him well at DOE, and we trust he will bring intelligence and enthusiasm to the General Counsel's role at the Department of Energy.

We are pleased to support the confirmation of William Cooper to serve as DOE General Counsel.

Sincerely,

Joe Trauger
Senior Vice President, Policy and Government Relations

AMERICAN PUBLIC GAS ASSOCIATION

August 13, 2018

Honorable Lisa Murkowski
Chairman
Committee on Energy and Natural Resources
U.S. Senate
Washington, D.C. 20510

Dear Chairman Murkowski:

On behalf of the American Public Gas Association (APGA), I express our strong support for the President's nomination of Mr. William Cooper to serve as General Counsel at the Department of Energy.

APGA is the national association for publicly-owned natural gas distribution systems. We represent nearly 750 public gas systems across 37 states. Publicly-owned gas systems are not-for-profit, retail distribution entities owned by, and accountable to, the citizens they serve. They include municipal gas distribution systems, public utility districts, county districts, and other public agencies that have natural gas distribution facilities.

Mr. Cooper possesses over 30 years of legal and policy experience which would greatly benefit him in the role of General Counsel. In addition, his work on the House Energy and Commerce and House Natural Resources Committee has provided him with the skills and knowledge to help the Department of Energy meet its mission of advancing the national, economic, and energy security of the United States.

It is our sincere hope that Mr. Cooper's nomination will move quickly and successfully through the Committee and the full Senate. We thank you in advance for your consideration.

Sincerely,

Bert Kalisch
President & CEO

201 Massachusetts Avenue, NE
Suite C-4
Washington, DC 20002

202.464.2742 (tel)
202.464.0246 (fax)
www.apga.org

Electric
Reliability
Coordinating
Council
ERCC

2001 M Street, NW
Suite 900
Washington, DC 20036

August 14, 2018

The Honorable Lisa Murkowski, Chairman
The Honorable Maria Cantwell, Ranking Member
Committee on Energy and Natural Resources
United States Senate
Washington, DC 20510

Dear Chairman Murkowski and Ranking Member Cantwell:

The Electric Reliability Coordinating Council (ERCC) is comprised of power companies that provide power to millions of consumers across the country. We write to express support for William Cooper to serve as General Counsel at the U.S. Department of Energy (DOE) in advance of the Committee's upcoming hearing.

ERCC members operate diverse portfolios of generation capacity. Our members are dedicated to ensuring reliable and affordable electric power -- an essential prerequisite for the protection of the environment, public health, national security and the economy. We are confident Mr. Cooper understands the benefits of providing balanced and defensible approaches to energy policy as it impacts electricity consumers.

Mr. Cooper has extensive experience with energy issues in general, and with electric power issues in particular. In addition to sophisticated work in private practice, his past roles on important Congressional committees allowed Mr. Cooper to offer clear-headed and insightful leadership and analysis on issues of substantial concern to the energy community.

Mr. Cooper's appointment is critical to the Department of Energy as it seeks to address complex regulatory and administrative reforms in a thoughtful fashion. We urge his swift approval by the Committee and Congress.

Sincerely,

Scott Segal, Executive Director

DONALD F. SANTA
PRESIDENT & CEO

August 14, 2018

The Honorable Lisa Murkowski, Chair
The Honorable Maria Cantwell, Ranking Member
Committee on Energy and Natural Resources
United States Senate
Washington, DC 20510

Dear Senators Murkowski and Cantwell:

The Interstate Natural Gas Association of America (INGAA), a trade organization that advocates regulatory and legislative positions of importance to the natural gas pipeline industry in the United States, writes to express support for the nomination of Bill Cooper to serve as General Counsel at the Department of Energy (DOE) in advance of his confirmation hearing on August 16. INGAA is comprised of 28 members, representing the vast majority of the interstate natural gas transmission pipeline companies in the United States.

The cleanest burning fossil fuel, natural gas is an essential component of our energy mix. It heats 76 million homes, generates 30 percent of the nation's electricity, and is used by manufacturers in a wide variety of processes. INGAA is confident that Mr. Cooper not only recognizes the importance of natural gas to our energy future, but also the necessity of expanding and maintaining the pipeline infrastructure that connects domestically produced natural gas to markets.

Mr. Cooper has substantial experience with natural gas and energy matters generally, having served as counsel to the House Energy and Commerce Committee, staff director for the House Natural Resources Subcommittee on Energy and Mineral Resources, and as president of the Center for Liquefied Natural Gas.

We are encouraged by the Senate Energy and Natural Resource Committee's expeditious schedule in setting a hearing for Mr. Cooper and urge his swift confirmation.

Sincerely,

Donald F. Santa

The CHAIRMAN. Mr. Genatowski, I have to like you already—"owski" is as good a way to end any name—Cantwellowski, Hironowski. We could really make this work all around the Committee.

But, aside from the name, I am actually envious of the job that you have been nominated for because ARPA-E, in my view, is a place where great things happen, great energy happens, so you are going to be in a good place. ARPA-E is not well-known outside of academic and entrepreneurial circles, but to me it is both critical and fascinating.

ARPA-E is helping to bridge the gap between high-risk research and development technologies that have promise but might otherwise not be pursued. We know this is difficult work, but the program is pushing boundaries and producing results, and that is why it has garnered strong support from both sides of our Committee.

While a few have questioned your background in finance, as opposed to being a scientist, I happen to think that your private-sector experience could be useful as projects and companies seek to navigate the so called "valley of death."

While much of what you encounter may seem esoteric, whether it's advanced carbon capture materials or efforts to turn seaweed into biofuels, you will be right on the cutting edge, working with many of our nation's best and brightest minds, to develop those technologies that can transform our world for the better. So again, a pretty neat place to be.

If members have additional questions after our hearing concludes, any questions for the record will be due at the close of business today.

With our extended August session, it may be possible to move these nominees this work period, should they prove qualified and have sufficient support in Committee.

I also want to note my growing concern about the number of nominees that we have reported from the Committee, who are still pending on the Senate calendar. We now have six nominees waiting for confirmation, with one of them having waited more than a full year, and the nominees before us today—so that brings us to a total of eight. We have been doing our job here in the Committee. We have been cooperative, but I think we have to do better on the Senate Floor. Given the backlog of nominees awaiting consideration, I am hopeful we can reach agreement to move nearly all of ours by unanimous consent, and I would urge all members to help us with that effort.

Senator Cantwell, I turn to you this morning for your opening comments.

STATEMENT OF HON. MARIA CANTWELL,
U.S. SENATOR FROM WASHINGTON

Senator CANTWELL. Thank you, Madam Chair, and thank you for holding this important hearing on these two very important nominees. I thank the nominees for their willingness to serve in these very demanding capacities.

As the Department's Chief Lawyer and General Counsel, Mr. Cooper, you will be responsible for providing sound legal advice on questions of law spanning the broad range of the Department's

mission. The job requires not only a broad knowledge of energy law but a deep respect and appreciation for the rule of law.

Representing the state with the largest radioactive cleanup in the nation, I am particularly interested in making sure the Department's next General Counsel is firmly committing to upholding the Department's legal obligations both to cleaning up Hanford and to protecting the health and safety of workers who are cleaning it up. I cannot emphasize enough the importance of taking care of our cleanup and the workforce that represents that.

We have authored legislation to help create a department at the Richland Center that assists both current and former Hanford workers as they navigate complicated health claims. It is a collaborative effort between the Department of Energy, Hanford contractors, trade councils and since its opening in the spring, it has proved to be very successful. Within the first month, it helped enable over 600 people moving through the process.

I am also interested, Mr. Cooper, in your thoughts and scope on the Department's authority as it relates to electricity markets. There have been reports in the news that the Administration is planning to invoke some emergency authorities to give preferential treatment to high cost generation in the name of grid resilience. I have a number of serious concerns about this, primarily that it would be very costly to ratepayers. We know the Department has been asked about this and obviously FERC has weighed in, so the fact that the Administration continues to pursue what we think is a wrongful policy is very concerning to us.

A Republican senator from New York, more than a century ago, observed that a good lawyer has to spend half his time telling his clients they cannot do what they want to do. The same might be said of the Department's General Counsel. It is the General Counsel's job to keep the Department within the bounds of the law and make sure that no one goes beyond it. So I intend to ask you questions about that and certainly questions about the responsibility of DOE in the tri-party agreement to cleaning up Hanford and meeting that obligation. I guarantee you every Energy Secretary has some idea about what they think is a faster way to clean up Hanford, but most of those have not been successful ideas. The point is, it costs a lot to clean up Hanford, but you have to live up to the tri-party agreement to do that. Trying to shorten that is not going to be a successful strategy.

Mr. Genatowski, I certainly appreciate your willingness to serve and to help with the ARPA-E mission. Congress established this in 2000 to overcome technological barriers in the transfer of important technology. I know for our state, we have had a lot of important issues on distributed generation, energy storage, fuel cell and building efficiency, lots of success stories, and we want to continue to see those success stories.

It was first recommended by the National Academy of Sciences as a way of enhancing science and technology for the 21st century. The Committee has had a long history, as the Chairwoman said, of supporting its current mission and some of its successes in the past. We will be looking forward to hearing from you on assurances that this mission will be led aggressively by DOE.

It is no secret that the President has not been as supportive of this agency and organization, yet we believe it is very much about the Department delivering for the future of energy needs for this nation. So thank you for your willingness to serve.

Thank you, Madam Chair, for the hearing.

The CHAIRMAN. Thank you, Senator Cantwell.

The rules of the Committee which apply to all nominees require that they be sworn in in connection with their testimony. At this time I would ask that you each rise and raise your right hand.

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

[Witnesses respond, I do.]

The CHAIRMAN. You may go ahead and be seated.

Before you begin your statements, I will ask three questions addressed to each of you.

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?

[Witnesses respond, Yes.]

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

Mr. Cooper?

Mr. COOPER. No.

The CHAIRMAN. Mr. Genatowski?

Mr. GENATOWSKI. No.

The CHAIRMAN. Thank you.

Are you involved or do you have any assets held in blind trust?

Mr. COOPER. No.

Mr. GENATOWSKI. No.

The CHAIRMAN. With that, Mr. Cooper, why don't we begin with you. I would encourage both of you, if you have family or invited guests that you would like to introduce to the Committee, you are certainly welcome to do that. We welcome your comments, your introduction, before the Committee.

All members have seen a copy of your backgrounds and your resumes that are extensive.

So please, Mr. Cooper, if you would like to lead off?

STATEMENT OF WILLIAM COOPER, NOMINATED TO BE GENERAL COUNSEL OF THE DEPARTMENT OF ENERGY

Mr. COOPER. Thank you.

I'd like to introduce my wife, Denise, and my colleague, Jason Knox. They're here with me today to provide moral support. I think I'll need it.

[Laughter.]

Good morning, Chairman Murkowski, Ranking Member Cantwell, members of the Committee, committee staff and personal staff, thank you for the opportunity to appear today as the nominee for the position of General Counsel at the United States Department of Energy.

It is an honor to appear before the Committee. And I'm grateful to President Trump and Secretary Perry for the confidence they have in me to fulfill the duties of the office, if I am fortunate enough to be confirmed by the Senate.

I'd also like to thank my wife, Denise, for her support over the years, as well as my children, Clay and Laura. The support of my family is critically important to me to have success in my various endeavors and, particularly, this one.

When I was admitted to practice law several years ago, I swore an oath to support the Constitution of the United States and I pledged that I would truly and honestly conduct myself in a proper manner in the practice of my profession to the best of my skills and abilities.

I spent the first 16 years of my professional career interpreting the law on behalf of clients, whether as a transactional lawyer or as a litigator, mostly for oil and gas clients and a natural gas utility district. When I accepted a position as counsel on the House Energy and Commerce Committee, my policy responsibilities, mainly in the areas of oil and gas and pipeline safety, included drafting legislation that would change the law. While at the Center for Liquefied Natural Gas, I frequently commented on the law, relying on the Constitutional right all Americans enjoy, the right to petition the government for redress of grievances. Then, back to Capitol Hill to work for the House Natural Resources Committee, where my responsibilities again included drafting legislation that would change the law. While at the Committee, my focus was on oil and gas, coal and mineral management on federal lands and Puerto Rico. Most recently, I have been with the law firm of McConnell Valdes, addressing my attention to the issues in Puerto Rico.

Now, with this opportunity, should the Senate provide its advice and grant its consent for me to assume the position of General Counsel, I will have come full circle, with the opportunity to interpret the law on behalf of a client.

The mission of the Office of General Counsel is "to determine the Department's authoritative position on any question of law", providing "legal advice, counsel, and support to the Secretary, the Deputy Secretary, and program offices throughout DOE."

I do understand that I will no longer be in a policymaking role but in a role to render legal advice based upon the plain meaning of the statutes, rules and regulations governing a particular set of circumstances. And, where the meaning of a statute, rule, or regulation is not plain, to make a reasonable interpretation, using the four corners of the text, along with judicial precedent, to render sound legal advice as required by my client.

As John Adams articulated in Massachusetts in the 1700s, our government is one of laws, not of individuals. But in government it is populated by individuals, individuals who need to know the law and the ramifications of particular actions as applied to the law. The duty of the Office of General Counsel is to provide that legal advice within the Department of Energy.

My pledge, just as it was when I first took the oath to practice law, is to support the Constitution of the United States, and to truly and honestly conduct myself in a proper manner in the practice of my profession to the best of my skills and abilities.

Thank you for the opportunity to be here today. I ask for your favorable consideration of my nomination, and I look forward to your questions and working closely with you and your staffs, if confirmed.

Thank you.

[The prepared statement of Mr. Cooper follows:]

OPENING STATEMENT
BILL COOPER
NOMINATION HEARING
U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
AUGUST 16, 2018

Chairman Murkowski, Ranking Member Cantwell, Members of the Committee, Committee Staff and Personal Staff, thank you for the opportunity to appear today as the nominee for the position of General Counsel at the U.S. Department of Energy.

It is an honor to appear before this Committee. I am grateful to President Trump and Secretary Perry for the confidence they have in me to fulfill the duties of the office, if I am fortunate enough to be confirmed by the Senate.

I would also like to thank my wife, Denise, for her support over the years, as well as my children, Clay and Laura. The support of my family is critically important for me to have success in my various endeavors.

When I was admitted to practice law several years ago, I swore an oath to support the Constitution of the United States, and I pledged that I would truly and honestly conduct myself in a proper manner in the practice of my profession to the best of my skills and abilities.

I spent the first 16 years of my professional career interpreting the law on behalf of clients, whether as a transactional lawyer or a litigator, mostly for oil and gas clients and a natural gas utility district. When I accepted a position as counsel on the House Energy and Commerce Committee, my policy responsibilities, mainly in the areas of oil and gas and pipeline safety, included drafting legislation that would change the law. While at the Center for Liquefied Natural Gas, I frequently commented on the law, relying on the Constitutional right all Americans enjoy: the right to petition the government for redress of grievances. Then, back to Capitol Hill to work for the House Natural Resources Committee, where my responsibilities again included drafting legislation that would change the law. While at the Committee, my focus was on oil and gas, coal, and mineral management on federal lands, and Puerto Rico. Most recently, I have been with the law firm of McConnell Valdes, addressing my attention to the issues in Puerto Rico.

Now, with this opportunity, should the Senate provide its advice and grant its consent for me to assume the position of General Counsel, I have come full circle, with the opportunity to interpret the law on behalf of a client.

The mission of the Office of General Counsel is "to determine the Department's authoritative position on any question of law", providing "legal advice, counsel, and support to the Secretary,

the Deputy Secretary, and program offices throughout DOE..." I do understand that I will no longer be in a policy-making role, but in a role to render legal advice based upon the plain meaning of the statutes, rules and regulations governing a particular set of circumstances. And, where the meaning of a statute, rule, or regulation is not plain, to make a reasonable interpretation, using the four corners of the legal text, along with judicial precedent, to render sound legal advice as required by my client.

As John Adams articulated in Massachusetts in the 1700s: Our government is one of laws, not of individuals. But, the government is populated by individuals; individuals who need to know the law and the ramifications of particular actions as applied to the law. The duty of the Office of General Counsel is to provide that legal advice within the Department of Energy.

My pledge, just as it was when I first took the oath to practice law, is to support the Constitution of the United States, and to truly and honestly conduct myself in a proper manner in the practice of my profession to the best of my skills and abilities.

Thank you for the opportunity to be here today. I ask for your favorable consideration of my nomination. I look forward to your questions and working closely with you and your staffs if confirmed.

The CHAIRMAN. Thank you, Mr. Cooper, and again, thank you for not only your willingness to serve in this position but for your prior service.

Mr. Genatowski, welcome to the Committee.

STATEMENT OF LANE GENATOWSKI, NOMINATED TO BE DIRECTOR OF THE ADVANCED RESEARCH PROJECTS AGENCY-ENERGY, DEPARTMENT OF ENERGY

Mr. GENATOWSKI. Chairman Murkowski, Ranking Member Cantwell, members of the Committee, and staff, thanks for the opportunity to appear before you as the nominee to be Director of ARPA-E at the Department of Energy.

I'd like to thank some of the staff members who met with me prior to this hearing to discuss your concerns and your ideas concerning ARPA-E and the work they do and the comments you both made here today at the start of the hearing.

I'd like to thank the President and Secretary Perry for their trust and confidence in nominating me, and I'm deeply honored to be considered for the position. If confirmed, I look forward to working with this Committee, the Secretary and the leadership and the workforce at the Department to serve the American people.

With your approval, I'd like to introduce my wife and best friend, Robin Schuman, without whose love, wisdom and unfailing encouragement, I wouldn't be here today. I appreciate her being here today and allowing me the opportunity to potentially serve the country.

By way of background, I was born and raised in New York City and attended both City University of New York and Fordham Law School. After graduating and spending the first five years of my career as a lawyer drafting documents in infrastructure and energy financing, I went over and learned all the skeletal skills that you see in documents related to financing transactions which has served me well in the second step of my career as an investment banker. At that point after five years, I worked for 30 years in the investment banking divisions of Kidder, Peabody, JPMorgan, JPMorgan Chase, Bank of America, and Wells Fargo. At each firm I executed transactions and managed business units focused on power and energy within the context of large global organizations. I had the opportunity to lead energy sector investments in over 45 states and on four continents, related to renewables, oil and gas production, electric grid, as well as a significant volume of generating facilities, both nuclear and fossil. Most recently, I founded an investment management firm where I am responsible for its portfolio of investments in investment in energy and utilities. I think as a result, I've gained a lot of experience as a manager in the energy sector, as an investor, knowing where and when to invest capital to make a difference and in knowing what investors look for in their energy investments. As a lawyer I think I've learned how to make agreements palatable to investors while making sure that the mandates of my clients, which in many sectors, were public sector clients, their mandates were enforceable with promises against the investors borrowing money.

Early in my career, I added a nuclear engineer and an electric engineer to my investment banking units to provide my clients and

my investment bankers with a deeper insight into work that we were doing and the impact it was having on the physical environment. I learned invaluable lessons how to manage a nuclear engineer and electrical engineer which was different than managing investment bankers and lawyers.

If I'm fortunate enough to be confirmed and appointed, the first thing I would do is turn my attention to my statutory responsibilities under the act. I would direct the staff, particularly, to come up with proposals that would accelerate ARPA-E achievements into being known and available in the marketplace, taking a fresh look at marketing ideas and legal documentations.

I'd like to thank the members of the Committee for allowing me to be here today. It's an honor to come before the Committee, and I ask for your favorable consideration of my nomination. I look forward to hearing your questions and learning more about the challenges facing the Department and ARPA-E.

Thank you.

[The prepared statement of Mr. Genatowski follows:]

OPENING STATEMENT
LANE GENATOWSKI
NOMINATION HEARING
U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
AUGUST 16, 2018

Chairman Murkowski, Ranking Member Cantwell, Members of the Committee, and staff:

Thank you for the opportunity to appear before you as the nominee to be the Director ARPA-E at the Department of Energy. I would like to thank those of you who met with me prior to the hearing to discuss your ideas and concerns and make recommendations about the ARPA-E. I would also like to thank the President and Secretary Perry for their trust and confidence in nominating me. I am deeply honored to be considered for this position. If confirmed, I look forward to working with this Committee, Secretary Perry, and the dedicated leadership and workforce at the Department in serving the American people.

I was born, raised, and educated in New York City, attending both City University of New York and Fordham University School of Law. After graduating law school in 1976, the first five years of my career were spent as a lawyer negotiating and documenting the financing of power and infrastructure projects. Here I learned the skeletal structure of transactions, how risk and reward are allocated and how promises made are enforced. I then worked for over 30 years in the investment banking divisions of Kidder, Peabody, JPMorgan, JPMorgan Chase, Bank of America, and Wells Fargo. At each firm I executed transactions and managed business units focused on power and energy within the context of large global organizations. I had the opportunity to lead energy sector investments and transactions in 45 states and on four continents, related to renewables, oil and gas production, the electric grid, as well as a significant volume of domestic nuclear and fossil fueled generation work. Most recently, I founded an investment management firm where I am responsible for its portfolio of electric, gas, and water investments.

As a result, I have gained significant experience as a manager in the energy sector, as an investor knowing where and when to invest capital to make a difference and what investors look for in energy investments, and as a lawyer knowing how to make agreements easy for investors to achieve, while still providing for the enforcement of performance obligations of contracting parties. Early in my career, I added a nuclear engineer to my investment banking business unit to provide clients and investment bankers insight into our work dealing with pollution control issues at nuclear generating stations. I learned invaluable lessons from this regarding how to best support technical experts to accelerate desired results.

If fortunate enough to be confirmed and appointed, I would immediately turn my attention to my statutory responsibilities by consulting with ARPA-E staff and Program Directors to get up-to-speed on administrative, budget, and program details in close coordination with the

management of DOE. Among other things I would focus on the recruitment and retention of top talent, the 2019 Energy Innovation Summit and program and portfolio development decisions. I would direct the staff to come up with proposals that would accelerate ARPA-E achievements being known to and available in the marketplace – taking a fresh look at marketing ideas and legal documentation.

Members of the Committee, I wish to thank you again for allowing me to be here today. It is an honor to come before this committee, and I ask for your favorable consideration of the President's nomination. I look forward to hearing your questions to learn more about the challenges facing the Department.

The CHAIRMAN. Thank you so much, Mr. Genatowski.

We will now turn to a period of questioning. Members will have about five minutes each for a round and, if necessary, we will go for a second round.

Mr. Cooper, let me begin with you.

I would imagine you are going to get a number of questions regarding the Department's actions on grid resilience. Senator Cantwell had raised it as well.

Last September, the Secretary invoked his authority under the Federal Power Act to propose a rule to the Federal Energy Regulatory Commission (FERC) to stem the retirements of nuclear and coal plants with onsite fuel supply in the organized markets. FERC unanimously rejected the NOPR. Then this past June, the President directed the Secretary to stop the loss of these generating assets and it was about the same time that there was a memo leaked from the Department of Energy, about a 40-page memo, suggesting the Department is analyzing locations, specific vulnerabilities and contemplating some kind of action based on authorities under the Federal Power Act or the Defense Production Act.

The question to you this morning is what is your interpretation of the Department's statutory authority under both the FPA and the DPA, and in your opinion what are the parameters for Secretary Perry's anticipated recommendation?

Mr. COOPER. As I understand it, the Secretary has the authority to propose regulations to, excuse me, propose regulations to the Federal Energy Regulatory Commission under the Organization Act which he did with the NOPR. Then it's the responsibility of FERC to consider that within the confines of the Federal Power Act which it did. And then taking to heart the concern about grid resiliency has expanded the scope in a separate docket that it has recently ordered.

And other than that, I'm not aware of if the Secretary has taken any other action, but a lot of times these things turn, not on what the law says, but on what the facts are. And there may be facts in existence that I'm just not aware of and won't be until I get there and then therefore, I can't make the application of the facts to the law to render a legal opinion until then.

The CHAIRMAN. But do you believe that the statutory authority exists within the Department under both the FPA and DPA?

Mr. COOPER. Depending on the facts.

The CHAIRMAN. Okay.

Well, that is something that, I think, you will hear this Committee raise again, not only in your confirmation, but it obviously has been a subject of great discussion.

Mr. Genatowski, you will find that in this Committee there is strong bipartisan support for ARPA-E. We have been, I think, very consistent in letting the Administration know, very clearly, that we think this is important.

On the appropriations side, Senator Alexander, who also serves on this Committee, along with Senator Feinstein, have been good to ensure that ARPA-E maintains a level of robust funding. But we are up against an Administration that has presented a budget request these past two years to eliminate funding for the agency.

What I want to hear from you today, you have indicated that one of your first tasks is to look at the administrative budget and the program details and I understand that, but I would like to know your views on whether or not you think ARPA-E has received sufficient funding, robust funding, as an agency and what you will do to make sure that the Administration understands that this is an agency that deserves to be supported by the Administration?

Mr. GENATOWSKI. Thanks for the question.

Of course, I support the President's budget, but if appointed and confirmed or confirmed and appointed as ARPA-E Director, I think I would try to get my hands around exactly how much budgetary strength they have to follow out their projects. They're doing a great job with what they've got and if I was confirmed as Director, I'd obviously be an enthusiastic supporter of ARPA-E and all their projects to continue moving forward.

The CHAIRMAN. Well, keep in mind that if you are confirmed you will be that advocate.

Mr. GENATOWSKI. Correct.

The CHAIRMAN. Within the Administration.

You will be the one that will go to the President with, again, that support for an agency, and I would like to think that you would aggressively advocate for a strong budget to the Administration.

Mr. GENATOWSKI. If I were confirmed and I were the Director, yes.

The CHAIRMAN. Thank you.

Senator Cantwell.

Senator CANTWELL. Thank you, Madam Chair.

Just on this issue as it relates to the persistent attitude of the Administration trying to raise ratepayers' cost with coal, it has to stop.

I get that you are going to have to look at the language, but we need the President to stop proposing to raise everybody's cost of electricity by mandating coal and get him to focus on the reliability and resiliency of the grid as it relates to cyberattacks. So if you could help deliver that message through the agency, we would so appreciate it.

On the tri-party agreement you, as the Chief Counsel for the agency, are aware that Hanford is one of the largest cleanup sites in the country.

Mr. COOPER. Yes.

Senator CANTWELL. Actually, in the world.

We have a tri-party agreement that requires DOE to basically clean up 99 percent, basically it says the tanks must be cleaned up to 99 percent and use all available technologies or otherwise renegotiate with the State of Washington. Do you believe in upholding that tri-party agreement?

Mr. COOPER. I think the Department should honor its commitments in the agreement.

Senator CANTWELL. Okay.

And so, do you commit to fully consulting with the State of Washington, tribes and public interest, before making any kind of determination on tank waste?

Mr. COOPER. I think it's important for the Department to reach out to all stakeholders to get their input in advance of any decisions.

Senator CANTWELL. Okay.

And so, you believe in making the milestones of that kind of agreement?

Mr. COOPER. I don't know what the milestones are in there, but if it's in the agreement and the Department has agreed to it, it would be my advice to strongly try to adhere to them, yes.

Senator CANTWELL. Okay.

We might ask you follow up for the record because these milestones are what have been agreed to, and I appreciate that you believe the agency should adhere to them. The challenge that we face is obviously these milestones in the past have been missed and we want to make sure that contaminants not only reach the plans, but that the plans are actually real and in place. Obviously cleaning up Hanford and protecting the Columbia River is very important and the health and safety, as I mentioned in my opening statement, of the workforce there. So all of these are very, very important responsibilities of the general counsel.

I have already said what I wanted to say about grid resiliency. I just think the Administration is getting itself into—it needs to go in the opposite direction. It needs to realize that the future investment in the grid in resiliency from cyberattacks is just so, so important to us as a nation.

Mr. Genatowski, you had a lot of experience on one side of the equation, signing on the dotted line to say I will support and sign off on this investment. On the DOE side, a lot of times it is the exploratory side of the equation. How do you look at that change in responsibility? When I look at all of the things that have happened as it relates to advanced research, when I look at various ideas that really would not have been there, on some of the renewables or efficiency. It is not that they panned out, it is that we made a breakthrough in science. How would you describe where you are on that philosophy?

Mr. GENATOWSKI. Well, I think ARPA-E has got a very talented group of scientists, not only at the project level and the program level and the administrative level, that are able to, I think, advise me in areas where I'm, perhaps, not an expert.

And I've invested my money and my client's money and my firm's money over the years in technologies that are risky. Over the course of my career I did the first initial public offering for a geothermal company which then had some problems in the State of Hawaii, then came back and did another IPL and now it's the largest geothermal company in the world. It was a risky investment at the time and my responsibility in that particular instance was to understand the technology they were using to acquire the geothermal asset in the ground and to translate it into thermal content and move it into a generator and onto the grid. And I had to explain that to the investors.

So, I think that was an important, actually, milestone for me personally, in understanding investing in something that was, at the time, it seems now quite normal, at the time it was pretty cut-

ting edge. We had to deal with fluids. We had to deal with steam, dry steam. And I convinced the investors to do that.

Chairman Murkowski was talking about the valley of death, in terms of these investments that are large, they're long-term and they need people on the other end to catch them and sustain them that, I think, goes beyond just the venture capital typical, size of investment and duration of investment.

So I think in that regard one of the things I can bring to help the agency is my familiarity with, kind of, what works on the back end to actually take what the scientists do and translate it into a piece of equipment or a methodology or piece of IT that tells people how to drive, to make things more efficient, to place that in the hands of people that can actually put it in the marketplace, sell it to people and either reduce greenhouse gas pollution or increase efficiency in the real world.

Senator CANTWELL. Well, we have had lots of discussions over my time on technology transfer and what works and what doesn't. And yes, there has been a fair amount of critique of our national labs at various points of time about how much technology transfer they do do and whether they do it well, so I have no doubt you could probably add something to that discussion.

But I guess before the valley of death comes this decision about investment, writ large. I do think that you have a background in these subject areas that will be helpful for that. I just want to make sure that we are looking at that in a broad scale perspective of what the biggest opportunities and payoffs are and that we listen to groups and organizations about that level of investment, because I like the fact that you said you wanted to listen to the scientists because they are the ones who are going to tell us where the big opportunities are.

I am a big believer in science, and I am a big believer in listening to scientists.

So thank you.

Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Cantwell.

Senator Cassidy.

Senator CASSIDY. Let's continue, kind of, on this.

It is rather nebulous what you just laid out. I am not criticizing you, but I like to have more detail.

When you look at a project and you say this truly can translate into something which is commercially viable, what are you looking at because that gives us a sense of whether or not things are being looked at correctly. If you follow what I am saying?

Mr. GENATOWSKI. Sure.

Part of the ARPA process in evaluating projects up front is to evaluate initial commercial-ability, viability, in the marketplace.

I think up front, it's extremely hard to put a panoply of 144 projects or 150 projects out there and make the judgment that they're all going to end up being commercially viable because they have a lot of hurdles to go through.

I think the first question you have to ask is, is it scientifically viable and that's where I get the advice. Then the question is, is it something to be used in the real world? Will it displace something that's meaningful in terms of a cost factor? If you've got cus-

tomers that have invested equipment in the cost base and the equipment is long-lived, you've got to feel that you're comfortable coming out the back end with something that is revolutionary and not micrologically evolutionary.

In other words, it's got to make a cost difference for somebody to take a piece of equipment that they've not fully amortized, write it off and put a new piece of equipment in.

So, that's one of the things, I think, that I'd be looking for and to see that at the end of the day, not only does it make a difference, but the difference isn't marginal or the difference has the potential for not being marginal. The difference has a potential for being revolutionary enough to actually be bought and paid for by someone who takes an existing piece of equipment who moves it out and puts a new piece of equipment in.

Senator CASSIDY. Okay.

So, if you will, looking at the impact this could have, it is not that, for example, coal-fired plants are being replaced with combined cycle and natural gas probably before they have been completely paid for. But that is probably related as well to natural gas being a lower cost input as well as it is a better environmental profile.

I am just trying to understand this practically.

Mr. GENATOWSKI. I could give you an example.

Senator CASSIDY. Please.

Mr. GENATOWSKI. There's a program on methane detection which is very important to keep greenhouse gases out of the atmosphere. It doesn't require large capital expenditures on the back end. It requires a lot of science on the front end to get the sensors to the stage where they can detect, not only the methane from, let's say a—flying over in a probe or being on a worker's uniform or cap. That's not a very large expenditure on the back end. So that's something where you might take more risk on the front end and say, that can easily be viably commercial.

If you were looking at something that was larger, had a larger expenditure, then you'd want to be a little more certain on the front end, that it would be something that could displace a larger piece of equipment.

And that's in, I guess what I'm trying to say is those would be things you'd weigh and it's very hard to quantify something like that if you're 10 years away or 15 years away from commercialization.

A lot of risks have to be taken, I think, in an ARPA-E environment to see how things develop as they go.

Senator CASSIDY. So let me ask because these questions are obviously focused on ARPA-E—one of the challenges it seems that you have is how to convince us and the taxpayer of the value of what you were doing, if that makes sense. It is one thing if you are an angel investor because you are getting a return on your investment, perhaps not as much if you are a taxpayer and you are wondering what is happening with it.

Any thoughts how to take these highly technical issues and break them down so that folks like us can understand and then in turn it translates to the taxpayer, this is a good value for your taxpayer dollar?

Mr. GENATOWSKI. I think the way you can explain it is as the projects go along they first have to have some type of scientific validity and some reason to start the experiment because if 100 percent of ARPA's experiments end up in the marketplace they're not doing their job, they're really just doing a job for industry. If none of them end up in the marketplace, they're not following the statutory obligation to basically place something in the marketplace to actually benefit the environment or to reduce the importation of fuel or oil or reduce—or increase the efficiency of energy consumption. So, I think, there's some blend.

And I don't know you can tell at the initial starting gate if you've got 144 projects which ones are going to make it and which ones aren't. If they all make it, you've not done a good job selecting enough science. If none of them make it, you've not done a good job selecting enough commerce.

Senator CASSIDY. Okay.

Mr. GENATOWSKI. I think it's something that you, kind of, figure out as you go along, quite frankly.

Senator CASSIDY. Okay, well, thank you.

I yield back. Thank you.

The CHAIRMAN. Thank you, Senator.

Senator Smith.

Senator SMITH. Thank you, Madam Chair, and thanks to both of you for being here today and for your willingness to serve. I appreciate that very much.

I would like to start with Mr. Cooper, if I may.

I am interested in hearing your views on the question of natural gas exports and the impact of natural gas exports on domestic prices.

This is a big deal in Minnesota where two out of three homes in my state depend on natural gas heat to get through our famously cold Minnesota winters. Of course, if the price of natural gas goes up that is something that Minnesotans feel directly.

The biggest consumer of natural gas in Minnesota is actually our industrial sector, and there has been a study by the U.S. Energy Information Administration which found that increasing natural gas exports raises prices for consumers. That makes sense. More demand, supply, you know, kind of basic economics.

My question for you as you think about this role of general counsel where I understand your job will be to interpret the law and then reflect that to the policymakers and the Administration. But could you talk to us a little bit about how your background leading the Center for Liquified Natural Gas—I keep wanting to say national gas, liquified natural gas—just explain to me how you will jive that experience with your new role as General Counsel in the Department of Energy.

Mr. COOPER. Some folks would say that natural gas is the national gas.

[Laughter.]

The role of general counsel would be to advise the folks within the Department about the law and its implications given a particular policy initiative.

Up until this point in time and certainly as LNG exports gained momentum, I'll say, as natural gas reserves in the United States

has really multiplied at an exponential scale, the Department has to look at what's in the public interest. That's kind of a vague, broad analysis that's in the Natural Gas Act for the commodity.

The Department of Energy authorizes the export or import of the commodity. The Federal Energy Regulatory Commission authorizes the design, construction and operation of the facility itself and that facility's impact on the surrounding environment. So the DOE's role is limited to the commodity and its impact on the marketplace.

There are several factors that have been developed over the last few years that the Department looks at. One of them is the cumulative impact of LNG exports as each new project is being considered and the consequences on the supply.

Senator SMITH. On price?

Mr. COOPER. Well, supply and price are——

Senator SMITH. Right.

Mr. COOPER. ——linked together, obviously.

Senator SMITH. Right, obviously.

Mr. COOPER. It's tight and the price goes up to reflect that in the marketplace. And if supply is abundant, then that's also reflected in lower prices absent some externality that would influence the market.

Senator SMITH. But do you see that, sort of, increased exports has the impact of raising prices for——

Mr. COOPER. I have not. I have not.

Senator SMITH. So, you would not agree with this.

Mr. COOPER. Since my time at the Center for Liquified Natural Gas and when exports really were beginning to be an idea, natural gas prices in the United States, as a whole, even cash prices and the forward pricing, has remained under $3.00. There are a month or two in the wintertime that I've seen on the forward strips, it might actually hit $3.00 or $3.10.

Generally, what drives the spikes would be pipeline constraints in the Northeast, but we have not seen any evidence that LNG exports is driving the market, as far as pricing goes anyway.

Senator SMITH. I wanted to raise this because I think that, certainly me and I think many of us on this Committee think about this in terms, as Senator Cantwell is saying also, think about this in terms of price for our consumers and our constituents.

I am appreciating this and I think it is important that we keep it, that you keep a keen eye on this as well as you are in this role.

I just have a couple more seconds, but I would like to—Senator Murkowski maybe I should go for the rest of this month as some Senator Smithowski.

[Laughter.]

Just for August, just for August.

Mr. Genatowski, I would like to just add my strong interest in support of the work of ARPA-E. This is really important in Minnesota. The University of Minnesota is actively involved in ARPA-E grants and I am one who believes strongly that the future of energy is going to happen, and the question is only whether we decide to lead or whether we end up following.

You would have the unenviable role of advocating for work that apparently this Administration wants to zero out. I just want to re-

iterate how important it is to me and to Minnesota that you are in a position to be a strong advocate.

Mr. GENATOWSKI. Yes, Ma'am. Thank you.

Senator SMITH. Thank you.

Thank you.

The CHAIRMAN. Thank you, Senator Smithowski.

Senator Hironowski.

[Laughter.]

Mr. GENATOWSKI. This is a first.

[Laughter.]

Senator HIRONO. Thank you, Madam Chair.

I ask this of all nominees who come before any of the Committees on which I sit. I ask the following two questions. So, I will ask the two of you, and I will start with Mr. Cooper.

Since you became a legal adult have you ever made unwanted requests for sexual favors or committed any verbal or physical harassment or assault of a sexual nature?

Mr. COOPER. No.

Senator HIRONO. Mr. Genatowski, same question.

Mr. GENATOWSKI. No.

Senator HIRONO. Have you ever faced discipline or entered into a settlement related to this kind of conduct?

Mr. COOPER. No.

Mr. GENATOWSKI. No.

Senator HIRONO. This is question for Mr. Cooper.

I think that Chair Murkowski also referred to this. On June 1st President Trump directed Secretary Perry to take, and I quote, "immediate steps to prevent the loss of fuel secure power plants." Basically this is really what amounts to a bailout of unprofitable coal and nuclear plants. In a leaked DOE draft memo, it would require electric grid operators to purchase power from coal and nuclear plants.

In a Committee oversight hearing on June 12th, several Federal Energy Regulatory Commissioners seemed very dubious about the order. For example, Commissioner Glick noted that it would stifle development of innovative new energy resources like energy storage, while costing the public billions of dollars in higher energy costs.

Mr. Cooper, what do you know about the Department's plans for carrying out the President's order on basically, subsidizing coal and nuclear plants?

Mr. COOPER. Not having been confirmed yet and not being made privy to all of the facts, I really don't know what their plans are other than what has been publicly stated.

Senator HIRONO. So, should you be confirmed then, would you go about helping the Department implement the President's order? Would you consider that part of your job?

Mr. COOPER. My role would be to advise the Department on the law and ascertain what the facts are surrounding that particular circumstance and advise the Department on the application of the facts to the law. And at present I don't know what the facts are.

Senator HIRONO. Well, as you go forward, should you be confirmed, I would be interested in how the Administration intends to proceed with this, basically subsidizing coal and nuclear plants.

You indicated in your testimony that your job would be to provide legal advice based on the plain meaning of the law that confronts you and if the meaning is not plain, you would make a reasonable interpretation using the four corners of the legal text. So, by four corners do you also include legislative history?

Mr. COOPER. I'm sorry, I didn't hear the last part.

Senator HIRONO. You said in your testimony that in order to interpret the statute, a relevant statute, then your job is to provide advice. And in terms of the interpretation, if the statute itself is not clear so, the plain meaning, that you would look at the four corners of the text.

My question is do the four corners include legislative history?

Mr. COOPER. If legislative history is a means by which we can try to interpret what the statute says, then by all means we would go there. The very first place, of course, is the statute itself.

Senator HIRONO. Yes. I don't mean to interrupt. I only have a minute left.

So yes, I understand about the plain meaning, but I just wanted to know what the four corners of the legal precedent are because you would only apply to four corners if the legislative, if the statute itself, is not clear on its face.

Let me move on.

For Mr. Genatowski, I thought it was very interesting, of course, coming from Hawaii that you had a part in providing some funding for geothermal. Unfortunately Puna Geothermal has been overtaken by lava, but that doesn't mean that geothermal is not, would not be, a reliable source of energy.

You do have a long background as an investment banker. Do you agree with the mission of ARPA-E, established by Congress, to take on the high potential, high impact energy technologies that are too early for private sector investment?

Mr. GENATOWSKI. I do.

Senator HIRONO. I like the framing that you said if everything that ARPA-E invests in becomes commercial or if nothing that it invests in becomes commercial that ARPA-E is not doing its job.

I think you do need to listen to the scientists to make sure that what you are supporting under ARPA-E has a potential, but not 100 percent potential for commercialization. There is a risk taking involved in moving us toward an energy self-sufficient future, and that's something that Hawaii is very interested in because we have received ARPA-E funding. You probably know that Hawaii has the most forward thinking, as far as I am concerned, energy goals. We want to be 100 percent energy self-sufficient in electricity by 2045 and we rely on ARPA-E for a lot of the cutting-edge support that we want to move forward on.

So in spite of the fact that this Administration is peopled by folks who are very much invested in the fossil fuel industry, I would want to have your commitment that you would do everything you can to articulate support for ARPA-E and its mission.

Mr. GENATOWSKI. Yes, Ma'am. All the projects that come into ARPA-E would all be evaluated by the scientists and by a merit committee. They respond to the FOAs or the OPENs and then they would get the funding.

Senator HIRONO. You are going to need to become a very strong voice and advocate because the President wants to cut back or wipe out ARPA-E.

Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator Hirono.

Senator King.

Senator KING. Mr. Cooper, I'm sure you are aware of Section 717b of Title 15 in the Natural Gas Act and that it states that an export license for an LNG terminal shall be, "consistent with public interest." Do you consider potential effects on domestic gas prices as part of the public interest analysis in making that decision?

Mr. COOPER. Well, there are two different analyses that occur if it regards the facility, the design operation, construction of the facility and its impact on the surrounding environment——

Senator KING. No, no, I am not asking that question.

I am not asking that question. I am asking about the Department of Energy permit under 717b that an export facility would be consistent with the public interest. Do you consider potential effects on domestic gas prices as part of the analysis of the public interest?

Mr. COOPER. I think that the precedent within the Department is on the economic impacts of the marketplace which would include pricing.

Senator KING. It would include effect on domestic prices? This is a very specific question because——

Mr. COOPER. I understand.

Senator KING. You are going to be faced with this question.

Mr. COOPER. I understand.

Senator KING. Does consistent with the public interest require analysis of effect on domestic prices by increased LNG exports?

Mr. COOPER. It's my understanding that the parameters that the Department applies includes the impact on the economy. I would assume there would be some analysis of pricing, but I would reserve the right to review those policies and the section of the Natural Gas Act you're referring to before I could make a definitive statement.

Senator KING. I would like you to make that analysis and provide it to the Committee for the record in this proceeding. I think this is a very important question.

There are now pending, as of June 28th of this year, 57 billion bcf per day of export, of LNG export applications. Total production is now 90. That is more than half. It is strange credulity to assume that that level or anything close to it would not affect domestic prices. So this is a very important question, you are going to be faced with it as General Counsel, what the meaning of that provision is. I would like your view on the meaning of the "consistent with the public interest" phrase and whether specific economic analysis of effect on domestic gas prices is part of a public interest analysis.

Okay? Thank you.

Mr. Genatowski, the first words out of your mouth when asked by the Chairman about ARPA-E was, of course, I support the President's budget. My first thought is then why are you sitting here? The President's budget zeros out this agency. You cannot be two

people. Do you support the President's budget or do you think ARPA-E has an important mission?

Mr. GENATOWSKI. I support the President's budget and I'm here because I'd like to get a chance to run ARPA-E and put my oar in the water and help it out to be as better as it can be.

Senator KING. Well, you understand the nature of the question.

Mr. GENATOWSKI. The dichotomy?

Senator KING. Yes.

Mr. GENATOWSKI. I do.

Senator KING. I am seeing two guys sitting at the table here. You either support the President's budget which is zero, or you want to run an agency that has an important mission in this country that is supported year after year by this Congress.

Mr. GENATOWSKI. I guess in my mind I can hold both concepts and they wouldn't be inconsistent.

If the Congress votes to appropriate money and authorizes money to be appropriated to run ARPA-E, the President signs the bill. There will be a budget for ARPA-E, and I'd like to be the person that runs it.

Senator KING. And you would run it consistently with Congressional appropriations and with the provisions of the statute?

Mr. GENATOWSKI. Absolutely. It's the law.

Senator KING. Next line of questioning is, you are a finance guy, not a scientist. ARPA-E is a science agency. Why should we confirm a guy to one of the most important science positions in the government who is not a scientist?

Mr. GENATOWSKI. Well I think ARPA-E has a lot of scientists in and out of ARPA-E that work with it, give it a lot of input. I think one of the obligations of ARPA-E is to, as I said before in reaction to another question, try to deliver some of the products into the marketplace so the citizens can realize the benefits in the environment and in the economy of more efficiency and less greenhouse gas and pollution. And I think that I understand what the ultimate buyers do, what they look at, to purchase the equipment and implement the scientific discoveries into the real world, in the real operating world.

Senator KING. Thank you. Well, I will be interested in that, how you navigate that and I appreciate your answer.

Mr. Cooper, one final quick question. In your prior position, well, let me broaden it. Do you know of any studies published or unpublished of effects of natural gas exports on domestic prices at varying levels?

Mr. COOPER. There have been a couple of studies performed in the last three or four years, I believe, that were filed as part of the docket at the Department, of the LNG export docket.

I can't remember the name of the consulting firm that prepared them, but yes, I'm aware that there are studies.

Senator KING. In your prior work for the Trade Association did you all prepare any studies, do any published or unpublished studies of that question?

Mr. COOPER. No, we did not.

Senator KING. Do you have an opinion as to what level of exports, in terms of a percentage of production, would be, would produce significant increases in domestic prices?

Mr. COOPER. I think it's difficult to do that because as pricing triggers increase in the development of supply, the development supply triggers the decrease in pricing. It's difficult for me, not being the economist or person who does modeling to be able to do that.

Senator KING. Thank you.

Thank you, Madam Chair.

The CHAIRMAN. Thank you, Senator King.

Senator Manchin.

Senator MANCHIN. Mr. Genatowski, the only thing I would ask to follow up on what Senator King has asked is, did you seek this job or did they seek you out? Is this something you put your name in for that you would be interested in or it just, kind of, came up?

Mr. GENATOWSKI. It, kind of, came up.

Senator MANCHIN. It, kind of, came up. So, you won't say your expertise is in this, as you mentioned, it's——

Mr. GENATOWSKI. Can you repeat that, Senator?

Senator MANCHIN. Would you acknowledge that this is not your expertise in ARPA-E, Department of Energy?

Mr. GENATOWSKI. I think my expertise would be valuable to ARPA-E.

Senator MANCHIN. You do. From what——

Mr. GENATOWSKI. Well, I've managed various groups of professionals in the energy sector for 30 or 40 years. I've been an investor in the energy sector, and I know the investors in the energy—I've invested my money, client's money and firm money in the energy sector for 30 or 40 years.

And I understand, having been a draftsman of drafting documents in the energy and infrastructure sector for five years and reading them for 35 years, what documents our investors are amenable to sign and also what promises you can put in those documents that are enforceable.

Senator MANCHIN. Let me speak about one in particular, carbon capture utilization (CCU). The Carbon Capture Utilization Research Council in the use and deployment of the CCU is what we consider to be one of the tools in the tool boxes.

You are familiar with the carbon capture utilization and sequestration. As you see it, what is the greatest challenge that has limited this technology from greater commercialization to date? Why have we not been able to use this on a commercial scale and why have we not promoted and developed any commercial use with carbon capture utilization? And do you believe that ARPA-E can and should be playing in low emissions fossil fuel generation?

Mr. GENATOWSKI. On the first question, I don't have the technical knowledge, and I'd have to ask the staff at ARPA-E to help me out to answer that question.

And then I'd ask you to repeat the second question.

Senator MANCHIN. What role, well, the second one would be, probably the same answer. What role do you believe that ARPA-E can and should be playing in low emission fossil fuel generation? Do you believe there is a role for ARPA-E in that?

Mr. GENATOWSKI. I think ARPA-E has a role in terms of reducing greenhouse gases. It's in their research mandate. And I think if

proposals come in through OPENs or FOAs and they pass through the review process, ARPA-E would fund the research.

Senator MANCHIN. I am thinking like Senator King, my friend mentioned, that it has been zeroed out. So the intent is to close down ARPA-E, intent from the Administration which must be coming from the recommendation from Secretary Perry or from the Department of Energy or someone within the White House. Did they bring you in to close it up, just, kind of, put the nail in the coffin, as we say?

Mr. GENATOWSKI. No, sir.

Senator MANCHIN. When you were vetted for this position did they talk to you about we have zeroed it out so we want you to put it to bed, lay it to rest?

Mr. GENATOWSKI. Not one minute was I talked to about closing it out.

Senator MANCHIN. Did you know at the time that you were being vetted that it had been zeroed out?

Mr. GENATOWSKI. Yes, I did.

Senator MANCHIN. What were your questions?

What would be your question to them, whoever vetted you, why did you pick me since you want to close the system down?

Mr. GENATOWSKI. Well, the people that vetted me, I guess, picked me because they thought if it wasn't closed down I could add something. And I'd add something in terms——

Senator MANCHIN. Was it the White House? Was it White House staff who vetted you or Department of Energy?

Mr. GENATOWSKI. I don't necessarily know who ended up vetting me. I spoke to people at the Department of Energy, and I spoke to people at the White House.

Senator MANCHIN. Okay.

Mr. Cooper, as General Counsel you are going to be responsible for providing legal advice throughout the agency. How do you intend to support the culture that prioritizes accountability and transparency? I think your role would be to Secretary Perry, I believe, to recommend and advise?

Mr. COOPER. I'm sorry, I lost a little bit in the translation. Could you repeat the question?

Senator MANCHIN. Well, the question was how do you intend to support a culture that prioritizes accountability and transparency?

Mr. COOPER. I think first of all the General Counsel's office needs to look at what policies and procedures are in place and then reinforce those policies and procedures to further a culture of accountability and transparency.

Senator MANCHIN. The Department of Energy, alongside with the White House and National Security Council, are examining ways to ensure a level playing field for coal and nuclear power plants that are in danger of retirement. Are you moving up on that? Have they talked to you about that or have you followed that?

Mr. COOPER. I've followed it from afar as a private citizen.

Senator MANCHIN. We are talking about the plants that provide resiliency and reliability to our grid, and that means they are important to the national security.

So with your background in energy, I am interested to know whether you agree with the President that these power plants are critical for national security? That would be nuke and coal.

Mr. COOPER. In my role as the General Counsel, I'd have to have access to the facts that I don't have today to be able to make that determination.

Senator MANCHIN. It came from the Department of Energy. It came from the Secretary, himself, who basically said that our grid could be in jeopardy without the baseload fuel of coal and nuke plants. The coal plants mean ones with all the pollution controls on and the nuclear and all those up-to-specs and up-to-date.

Are you concerned or have you followed that, I know you have an energy background, correct?

Mr. COOPER. I have an energy background.

Senator MANCHIN. Are you concerned about the reliability of the grid?

Mr. COOPER. I am concerned about the reliability of the grid. I think the Department is as well.

Senator MANCHIN. So, we will see, we will have to see which way that goes.

Thank you, Madam Chairman.

The CHAIRMAN. Thank you, Senator Manchin.

Senator Cortez Masto.

Senator CORTEZ MASTO. Thank you, Madam Chair.

Mr. Genatowski, let me follow up on some of the questions that Senator Manchin asked you with the ARPA-E program.

What would you do in your capacity as the Director to advocate the value of the ARPA-E's program to the Secretary and to the President?

Mr. GENATOWSKI. I would play to the external management evaluation National Academy of Sciences used. They've got a lot of research that they've done, many publications. They've got companies that have been formed. They've got products that have gone into the marketplace and actually changed the environment.

I think there are other citations of major publications. There are patents applied for, et cetera. There are a lot of different external goals, I think, that the National Academy had—about seven or eight—that they looked at. A lot of those are interim goals that are adding to knowledge which is important and some of them are, I'd say, ultimate goals which address the phrase and the statute of deployment, a deployment of the assets.

Some of those things are the geothermal well with the laser beams going down the middle to soften up the rock. There's the BASF venture capital where—to increase the viscosity and then not have any kind of attachment against the walls of a pipe or whatever. There's smart wire. There are many things that have made it to the end of the marketplace that have actually changed the way the market works and changed the way electricity moves, the way power moves and the energy moves and helped the environment.

Those are a handful of things out of a lot of projects which seems to me like the right ratio. Some failures, some projects that add to knowledge that haven't yet hit the market and then some things in the marketplace.

So, I guess, it seems to me they're doing their job and they should be continued for that reason. That's why, that's how, I guess, I would advocate it.

Senator CORTEZ MASTO. Okay, thank you.

Mr. Cooper, would you please share your general position on whether Yucca Mountain in Nevada should be a federal repository for the nation's nuclear waste?

Mr. COOPER. My position would be that the Department would follow the statutory mandates on Yucca Mountain, and I would advise the Department to do so.

It's the role of Congress to speak to that and I think Congress already has.

Senator CORTEZ MASTO. Would you recommend that the Secretary accept the framework established by the Blue-Ribbon Commission which was later accepted by your General Counsel predecessor and the Secretary's predecessor?

Mr. COOPER. I'd have to review the Commission's findings, and I haven't done so.

Senator CORTEZ MASTO. Would you support legislation requiring consent by state and local governments?

Mr. COOPER. By all means that's a decision for the Congress to make and it would not be a decision that I could make in my role as Office of General Counsel.

Senator CORTEZ MASTO. You do not think the Department of Energy would take a position one way or the other on whether or not there should be consent-based siting?

Mr. COOPER. I'm sure that it would depend on the particularities of the proposed legislation.

Senator CORTEZ MASTO. Okay.

On January 8th, FERC unanimously rejected DOE's grid resiliency proposal to provide support for failing coal and nuclear plants saying that there is no evidence that any past or planned retirements of coal-fired power plants pose a threat to reliability of the nation's electric grid.

Subsequently, a leaked DOE memo dated May 28th stated they would compel grid operators to buy electricity from at-risk plants under the auspices of national security.

Considering there is no existing emergency to respond to, it is hard to envision how propping up those at-risk coal and nuclear plants might be implemented.

In your legal opinion, what would such an emergency look like that would keep these plants online that could not be rectified with the grid system and resources we already have today?

Mr. COOPER. I really couldn't speculate on the fact pattern that I haven't seen that exists today or what might occur in the future. All I can commit to is that I would advise the Department of what the law says and then try to make a reasonable application of the facts to the law.

But at this point I'm not in a position to give an opinion.

Senator CORTEZ MASTO. Thank you.

On August 14th Secretary Perry was quoted as saying, "the government must ensure that the U.S. has baseload capability that only coal and nuclear can bring. The wind doesn't always blow. The sun doesn't always shine and gas pipelines are interruptible."

From your experience in the natural gas industry would you agree with this assessment?

Mr. COOPER. At a top line level, yes.

Senator CORTEZ MASTO. And any other comments? At a top line level, yes, what does that mean?

Mr. COOPER. Well, I'm saying that the energy sector is robust, it can be complex. I think that to do a full and complete analysis of how each part of the energy industry fits into the whole is more than I can succinctly state here today.

Senator CORTEZ MASTO. Okay, thank you.

I notice my time is up.

Thank you very much.

The CHAIRMAN. Thank you, Senator.

I have one last question for you, Mr. Cooper, and this has been raised a little bit by Senator Cantwell and some others.

As we are all aware, the Department of Energy has stood up a new Office of Cybersecurity, Energy Security and Emergency Response, the CESER. This is going to be a program, or an office I think, that we are all paying very, very close attention to.

You have a lot of overlap between electricity delivery, reliability and cybersecurity. There are those who would suggest that cybersecurity has to be, kind of, designed into every aspect of system operation and that a separate program might actually be counterproductive. I hear that argument. I happen to look at this and say, we have a significant issue going forward, and I think that an office is important.

A question for you is whether or not you agree with me on that and then, when it comes to cyber issues on the energy grid. You have a situation where you are going to be effectively managing different relationships between the Department of Energy and other agencies that are operating in this sphere, whether it is the FERC, you have the Department of Homeland Security, you have the NERC, the North American Electric Reliability Corporation, and then you have the private sector in there. Can you just speak to the issue of cyber, the new office itself, as well as the interplay with these other departments and programs as it relates to how we respond effectively on matters of cyber?

Mr. COOPER. I'm aware that the Office has been established. I'll leave it to the policymakers as to whether there should be an independent office or whether it should be integrated, absent such an office. I think they have spoken.

My role would be to advise and consult the Department in the development of that and all I can do is pledge that I'll do my best to fulfill the mission of the Department in that respect.

The CHAIRMAN. Well, I appreciate that you will, in your role as General Counsel, have the opportunity to weigh in on many of these issues and I guess I'm just putting out a concern that this is something that we do not want the DOE to be shut out.

I feel pretty strongly that when it comes to issues of cyber, as they relate to energy and energy security and reliability and resiliency here, that it is extraordinarily important that the Department of Energy be at that table in those discussions and really a strong participant.

Senator King or Senator Manchin, any follow-up?

Senator MANCHIN. I just have one thing. You can tell we have an interest in an all-in, and some of us do, an all-in energy policy.

I want to make it very clear, in my state we have 90 percent coal-fired plants because we are a state that is rich in coal.

We are also one of the states that has been blessed with natural gas, and we also believe in wind. We have one of the largest wind farms east of the Mississippi. So we are all for all of this.

The only thing that we are saying is to basically take a perfectly good, modern coal plant that has been upgraded with all the new modern technology for pollution control, SOX and NOX and all the things that we do, offline could jeopardize the grid because the only two products that you have that are base loaded right now is coal. You have 60 days of coal laying there, that plant will run 60 days uninterrupted. If you have 90 or more, the same. If you have nuke plants up to speed, they are going to do the same if they have nuclear fuel.

Wind doesn't blow all the time. Sun doesn't shine all the time. We do not have the technology to date for the storage that is needed. Natural gas lines can be interrupted. We are trying to build more gas lines and develop them, especially up into the Northeast where the product is needed.

So, with that being said, that was why the question I was asking, I think, by my dear friend, Senator Cortez Masto, was coming at a different angle at this, but we are just wanting people to be honest. You have to have baseload fuel to run the grid system, or if not, the well-being of our country and the security of the grid and the security of our nation could be at risk.

We are hoping with your knowledge of energy you will be looking into that and the advisement would be not to take any of these plants that are up to speed and up to the latest of technology offline until there is another baseload fuel to run 24/7, dependable, reliable and affordable. That is where, I think, we were trying to get to and hopefully you would consider that.

Mr. COOPER. I would look forward to working on the issue. I really do.

Senator MANCHIN. Thank you.

The CHAIRMAN. Well, gentlemen, thank you again for appearing before the Committee and your willingness to respond to the questions.

As I mentioned in my opening, it is my hope that members will have an opportunity to weigh in if they have additional questions to be submitted for the record. We would ask that those be submitted by close of business today.

Mr. Genatowski, I think the only follow on comment that I would add is, again, an imperative. I hope that you feel from this Committee, and I think that you will feel from many in this Senate, again, on a bipartisan basis, there is a support for ARPA-E. There is a role for ARPA-E. We have seen it demonstrated.

While I understand that there is an expectation that you would say you support the President's budget, my hope is certainly that when you have the opportunity to weigh in as that budget is being formulated that we won't be looking at next year's budget coming out of the White House and seeing ARPA-E recommended to be zeroed out. We will then know that you have really put your shoulder

to it, you have helped educate those folks, and you have shown them what value you can bring. I do believe that you can bring that value. I do believe that your focus from the investment side can be exactly that that we are hoping to be able to address.

You point out that there are many smart scientists at ARPA-E. You are right. I have met many of them.

I also know that as smart as they are as scientists, they might not be the best in the financial world. Those that can knit together the financing opportunities, we need to help figure out how to make those connections as well.

ARPA-E's role is not to be the financer, but it is to be the one to be the facilitator. I am encouraged that you have had some experience in facilitating just that. I am encouraged to know that as an investor you looked at some risky energy projects and chose to advance them. Some of them do not always work, but if they always worked they would be easy to finance.

So you bring a different perspective, I think an important perspective, and my hope is that you will share with the Administration that there is strong, strong support for ARPA-E within the Congress and that you look forward to helping to advance that.

Mr. Cooper, again, thank you for your efforts previously in the Congress. We wish you both well.

With that, the Committee stands adjourned.

[Whereupon, at 11:36 a.m. the hearing was adjourned.]

APPENDIX MATERIAL SUBMITTED

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. William Cooper

Question from Ranking Member Maria Cantwell

Question: This question follows up on the question I asked you during your hearing about meeting the milestones in the Tri-Party Agreement. You said you did not "know what the milestones are, but if it's in the agreement and the departments on it, then my advice is to strongly try to adhere to them, yes."

The Department of Energy, the State of Washington Department of Ecology, and the Environmental Protection Agency entered into the Tri-Party Agreement in 1989 to ensure the cleanup of Hanford. It contains many milestones, which represent the actions necessary to ensure acceptable progress toward compliance with federal and state environmental cleanup laws. Those milestones are set forth in Appendix D to the Action Plan, which is Appendix 2 to the Agreement. Although section 12 of the Action Plan provides a process for amending the agreement and its milestones, and although the parties have agreed to many changes in the past 29 years, the milestones are not mere suggestions, but are "an integral and enforceable part of this Agreement." Indeed, the Justice Department's letter stating that the Agreement is legally "binding and enforceable" under CERCLA and RCRA is made a part of the Agreement as Appendix 1.

Do you agree that the milestones in the Tri-Party Agreement are binding and enforceable and that the Department is legally bound to comply with them?

Answer: I believe that the Department should honor all legal commitments and work in good faith to meet all previously agreed to milestones.

Questions from Senator Ron Wyden

Question 1: As general counsel to the Department of Energy you are responsible for providing legal advice and counsel to further the Department's mission. Without question, you possess the necessary skills and experience for the role, but it is critical that someone with your responsibility possess a reasonable sense of judgement and independence. In a very questionable plan, President Trump and Secretary Perry said there was a national emergency and invoked the Federal Power Act and the Defense Production Act in an attempt to provide federal subsidies to pay for the continued operation of un-economic coal and nuclear power plants. According to the Federal Energy Regulatory Commission, no such national emergency exists, and these federal subsidies could raise Americans' electric bills by tens of billions of dollars each year.

What is your assessment of the legal underpinnings of this plan?

Answer: The provisions of the Federal Power Act and the Defense Production Act are known. To my knowledge, the Department has not issued an order regarding coal or nuclear involving the Federal Power Act or the Defense Production Act. As to DOE's proposed rule to FERC last

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. William Cooper

year, I am not privy to all the facts that led to its development. If confirmed, I look forward to looking into this issue.

Question 2: The recent Trump Memo cites a national emergency and directs the Department of Energy to subsidize coal and nuclear power plants. This directive appears to be motivated by politics, rather than facts, as FERC has determined no such emergency exists while the proposal is projected to raise nationwide electric utility bills up to $65 billion per year. To get my support, you will need to commit to me that you will avoid political interference from the White House and provide the Department of Energy with objective legal advice.

What will you do, if confirmed, to ensure your decisions and the decisions of your office and staff are based on legal analysis and not political pressures?

Will you commit, unequivocally, to avoiding political interference from the White House and provide advice based on the law and not based on political directive?

Answer: I am not familiar with the specifics of these proposals or of FERC's determinations, however, the job of the General Counsel is to provide factual, unbiased legal advice to Department officials. I take that duty seriously and commit to being an impartial legal adviser to the Department. I commit to remaining unbiased and to never be persuaded by political interference when it comes to administering legal opinions for the Department.

Question 3: I am a strong advocate for whistleblowers, especially at the Department of Energy. Whistleblowers are one of the early warning systems that can bring important safety or financial issues to management's attention. Yet, the Department of Energy has an abysmal record of protecting whistleblowers, especially at the Department's many contractor-operated facilities.

If confirmed General Counsel, what are specific actions you will take to eliminate the pattern of hostility towards whistleblowers and retaliatory practices that the Department of Energy and its contractors have engaged in against whistleblowers?

Answer: I will commit to you that whistleblower safety and transparency will be a top priority for me if confirmed. All federal workers should be empowered to relay their concerns without fear of retaliation. If confirmed, I will look into current protocols in place. I will also make sure the laws, regulations, and policies regarding whistleblowers are enforced, including the protections offered under the Whistleblower Protection Act. If confirmed, I hope to help develop a culture of safety for all Department employees or contractors.

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. William Cooper

Question from Senator Angus S. King, Jr

Question: Under the Natural Gas Act, the Department of Energy is required to assert that a proposal to export liquefied natural gas is "consistent with the public interest." Is it your legal opinion that this standard requires the Department of Energy to evaluate the impact of the proposed exports on domestic natural gas prices as part of the public interest analysis? Please answer this question with a yes or a no.

Answer: My understanding is that the "public interest" is not defined in the Natural Gas Act. I am aware that the Department has provided regulatory clarity as to what constitutes the public interest by stating: "DOE will consider any issues required by law or policy. DOE will consider domestic need for the natural gas, as well as any other issues determined to be appropriate, including whether the arrangement is consistent with DOE's policy of promoting competition in the marketplace by allowing commercial parties to freely negotiate their own trade arrangements. As part of this analysis, DOE…[examines] the cumulative impacts of exporting domestically produced LNG." (Federal Register Vol. 83, No. 21, page 4474, January 31, 2018.) Though I am not at the Department and have not reviewed this in detail, the determination of the "domestic need" appears to be a more holistic approach to evaluating the applications for the export of LNG than just impacts on domestic natural gas prices.

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: Pending Nominations
Questions for the Record Submitted to Mr. William Cooper

Question from Ranking Member Maria Cantwell

Question: This question follows up on the question I asked you during your hearing about meeting the milestones in the Tri-Party Agreement. You said you did not "know what the milestones are, but if it's in the agreement and the departments on it, then my advice is to strongly try to adhere to them, yes."

The Department of Energy, the State of Washington Department of Ecology, and the Environmental Protection Agency entered into the Tri-Party Agreement in 1989 to ensure the cleanup of Hanford. It contains many milestones, which represent the actions necessary to ensure acceptable progress toward compliance with federal and state environmental cleanup laws. Those milestones are set forth in Appendix D to the Action Plan, which is Appendix 2 to the Agreement. Although section 12 of the Action Plan provides a process for amending the agreement and its milestones, and although the parties have agreed to many changes in the past 29 years, the milestones are not mere suggestions, but are "an integral and enforceable part of this Agreement." Indeed, the Justice Department's letter stating that the Agreement is legally "binding and enforceable" under CERCLA and RCRA is made a part of the Agreement as Appendix 1.

Do you agree that the milestones in the Tri-Party Agreement are binding and enforceable and that the Department is legally bound to comply with them?

Answer: Yes. The milestones contained in the Tri-Party Agreement are binding and enforceable and the Department is legally bound to comply with them. I believe that the Department should honor all legal commitments.

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. Lane Genatowski

Questions from Chairman Lisa Murkowski

Question 1: Last year, the National Academies of Science produced a report that was highly complementary of the successes of ARPA-E. It also suggested some improvements that could be made. Although you are not currently working at the agency, what ideas for improving ARPA-E do you have? How can ARPA-E do even more to bridge the "valley of death" in energy technology development?

Answer: ARPA-E might benefit from increased coordination (formal and informal) within the DOE and other branches of government and industry. Early involvement of strategic well-funded end-users might help address the "valley of death" issue for energy projects depending on factors including final product cost, installed competitive equipment base and its embedded cost and the innovative nature (or not) of the end-user group.

Question 2: One of the most important functions of the Director of ARPA-E is to recruit scientific talent to be program directors. These are typically scientists and engineers who have active careers at the National Labs, in industry, or in academia. After bringing in talented minds, the Director also helps foster growth for these individuals to help them design, build, and run programs that are aggressive and lead to scientific breakthroughs. How will you recruit and foster the growth of scientific talent to ensure continued success at ARPA-E?

Answer: ARPA-E benefits from unique authorities granted by Congress since the Agency was formed, including special personnel authorities that allow for limited term hire of technical scientific experts. Additionally, scientists at ARPA-E do much of the initial identifying and recruiting of their colleagues and as this process seems to be operating satisfactorily, I would familiarize myself with the process and seek their input as to how I might be of help.

Questions from Ranking Member Maria Cantwell

Question 1: How might you organize the agency, whether through the appointment of additional deputy directors or senior advisors with scientific background to ensure the proper balance of scientific expertise and investment judgment?

Answer: If confirmed, I will bring decades of investment experience to the Agency. I believe that experience and the work of the world-class scientists already at the Agency and the Department will keep ARPA-E an effective R&D Agency. If confirmed, I will rely on the scientific staff already in place at ARPA-E and in the DOE complex, for technical and scientific advice.

Question 2: How do you plan to recruit the science and engineering talent the agency needs?

Answer: It is my current understanding that scientists at ARPA-E do much of the initial identifying and recruiting of their colleagues, I would familiarize myself with the existing process, seek the input of the participants and consider matters after more fully informed.

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. Lane Genatowski

Question 3: What do you think the key criteria should be for identifying new program areas for ARPA-E?

Answer: A new program area should show key attributes such as: significant impact on ARPA-E goals, translate science into transformative technologies, show a credible path to end-user acceptance, and be an activity not funded or researched elsewhere.

Question from Senator Ron Wyden

Question: If appointed as the Director of Advanced Research Projects you will be responsible for promoting and funding research and development of the United States' advanced energy technologies. It is critical that this type of work is free from political influence and has the freedom to pursue best-available-science and innovative research.

If confirmed, will you commit, unequivocally, to avoiding political interference from the White House?

Answer: Yes.

Questions from Senator Joe Manchin III

Question 1: I believe that carbon capture and carbon capture sequestration will be an important part of making sure we continue to ensure affordable and reliable electricity is delivered and is delivered in a way that improves the environmental performance of fossil fuel power generation. Recently, the Carbon Utilization Research Council (CURC) and the Electric Power Research Institute published an Advance Fossil Energy Technology Roadmap that lays out a plan for low carbon emissions fossil fuel power generation. The use and deployment of CCUS is what I consider to be a tool in the toolbox towards achieving this goal.

Are you familiar with Carbon Capture, Utilization & Sequestration? As you see it, what is the greatest challenge that has limited this technology from greater commercialization to date?

Answer: Yes, carbon capture utilization and sequestration is a breakthrough technology that has the potential to offer a promising future for coal while also meeting clean energy goals. Not having had the benefit of consulting with the ARPA-E scientific staff, it is my current understanding that cost is a significant obstacle.

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. Lane Genatowski

Question 2: What role do you believe ARPA-E can and should be playing in low emissions fossil fuel generation and how to do you intend to steer the program towards focusing on ways this can be done such as CCUS?

Answer: Part of ARPA-E's mandate is to fund clean energy generation. I believe CCUS fits that profile and that ARPA-E should fund all types of energy projects, including wind, geothermal, CCUS, storage, nuclear, and solar, among others.

What about improving plant efficiency?

Answer: Improving plant efficiency is also part of ARPA-E's mandate. That is a goal that can save costs for consumers and I believe ARPA-E is authorized to fund programs researching efficiency improvements.

Questions from Senator Tammy Duckworth

Question 1: Last summer, the National Academy of Sciences released its first assessment of the Advanced Research Projects Agency – Energy (ARPA-E). Their report indicated that the Agency has supported substantial progress in vital new technologies – progress that would otherwise be limited in ARPA-E's absence.

Mr. Genatowski, do you think ARPA-E has been a success? If so, what do you believe has led to its successes?

Answer: I believe ARPA-E has been a disruptive force in the energy technology field and I look forward to contributing to its continued successes. Some of the authorities Congress granted ARPA-E have made it successful, and I look forward to working with you on ways to improve the Agency, if confirmed.

Question 2: On June 21, 2018, the White House released its reform and reorganization recommendations for the Federal Government, which included incorporating ARPA-E into a larger Office of Energy Innovation. If instituted, this new office will focus on specific areas of applied research.

Mr. Genatowski, unlike the applied offices which focus on later stage research, ARPA-E focuses on early stage research. Are you concerned that this change will inhibit ARPA-E's ability to be effective at early stage research and development?

Answer: I am unfamiliar with the specifics of the White House reorganization plan and whether or not it will be implemented.

U.S. Senate Committee on Energy and Natural Resources
August 16, 2018 Hearing: *Pending Nominations*
Questions for the Record Submitted to Mr. Lane Genatowski

Question 3: ARPA-E is a research and grant-based agency intended to advance transformational energy technologies with high potential yet are not attractive investments for the private-sector. The agency has numerous programs focused on innovative areas of research, each of which has numerous projects.

Mr. Genatowski, what criteria will you use for identifying new program areas and qualifies you to make these decisions?

Answer: A new program area should show key attributes such as: significant impact on ARPA-E goals, translate science into transformative technologies, show a credible path to end-user acceptance, and be an activity not funded or researched elsewhere. If confirmed, I will bring decades of investment experience to the Agency and will rely on the scientific staff already in place at ARPA-E and in the DOE complex, for technical and scientific advice.