S. Hrg. 115–123

HEARING ON THE NOMINATIONS OF KENNETH E. ALLEN, A.D. FRAZIER, JEFFREY SMITH, AND JAMES R. THOMPSON III TO BE MEMBERS OF THE BOARD OF DIRECTORS OF THE TEN-NESSEE VALLEY AUTHORITY

HEARING

BEFORE THE

SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED FIFTEENTH CONGRESS

FIRST SESSION

NOVEMBER 28, 2017

Printed for the use of the Committee on Environment and Public Works



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

U.S. GOVERNMENT PUBLISHING OFFICE

 $27-748 \,\mathrm{PDF}$

WASHINGTON : 2018

For sale by the Superintendent of Documents, U.S. Government Publishing Office Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800 Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

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ONE HUNDRED FIFTEENTH CONGRESS FIRST SESSION

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HEARING ON THE NOMINATIONS OF KEN-NETH E. ALLEN, A.D. FRAZIER, JEFFREY SMITH, AND JAMES R. THOMPSON III TO BE MEMBERS OF THE BOARD OF DIRECTORS OF THE TENNESSEE VALLEY AUTHORITY

TUESDAY, NOVEMBER 28, 2017

U.S. SENATE,

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY, Washington, DC.

The Subcommittee met, pursuant to notice, at 10:06 a.m. in room 406, Dirksen Senate Building, Hon. Shelley Moore Capito (Chairman of the Subcommittee) presiding.

Present: Senators Capito, Inhofe, Boozman, Fischer, Ernst, Barrasso, Whitehouse, and Gillibrand.

OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator CAPITO. I want to thank everybody for being here today. This hearing of the Clean Air and Nuclear Safety Subcommittee is called to order.

I will begin by recognizing myself for a brief opening statement before turning over the floor to the Ranking Member.

We will then hear from our first panel, which will include Senate Majority Leader McConnell, to introduce the nominee from the Commonwealth of Kentucky and Senators Corker and Alexander to introduce the nominee from the great State of Tennessee.

Following their introductions, I will ask the nominees to introduce themselves and their friends and family in the audience today.

I recognize myself for 5 minutes.

The Tennessee Valley Authority has diverse mandates to provide portions of Tennessee, Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia with affordable electricity, flood prevention, navigation access, and economic development opportunities.

As a Government corporation, the TVA faces a unique combination of challenges that also confront private utilities and State and local governments around the country, as well as the Federal Government itself.

Like many utilities reliant upon coal and nuclear as baseload generation sources, the TVA has been impacted by environmental regulations and the new economics of cheap natural gas. Aging coal and nuclear units will need to have their licenses extended, be upgraded or be replaced in the coming years, all subject to the full gamut of State and Federal environmental regulatory review.

The Authority also sources renewable energy from its significant hydroelectric assets. However, this variable source of energy can contribute uncertainty to the TVA's price modeling. Like entities across the country, the TVA faces significant maintenance and replacement costs for infrastructure, in some cases dating back to the 1930s.

The TVA reliance upon ratepayers for its funding and congressional mandates to provide electricity at the lowest feasible price for residential and industrial customers in one of the most economically disadvantaged parts of the country is particularly susceptible to fuel and regulatory costs. So far it has been successful in its mission, having retail rates more affordable than nearly 70 percent of electric utilities.

From an environmental perspective, 55 percent of TVA's generation is carbon free across its nuclear and hydropower generation, and the Authority intends to reduce carbon dioxide emissions by 40 percent from its 2005 baseline by the year 2020. Continuing to build upon TVA's environmental stewardship will be of significant interest to this Committee.

TVA is also facing a serious issue confounding government entities at every level all around the country. That is, meeting its pension obligations. The GAO sounded the alarm last year that the TVA retirement system is under-funded by about \$6 billion.

The \$7.1 billion currently available to the TVA retirement system is sufficient to cover only 54 percent of existing and expected obligations. Though the TVA's debt has remained stable over the past decade, unfunded pension obligations have increased over the same timeframe. Even as it transitions to a 401(k) style defined contribution system, these pension obligations will further pressure TVA's finances given the other significant investments it will need to make in the coming years to fulfill its mission.

Each of our nominees will serve a term of 5 years on the TVA's board of directors determining the Authority's goals and objectives to address these challenges. I look forward to hearing the testimony today on how they intend to bring their varied backgrounds in private and public service from coal to finance to the National Lab system to bear to keep the TVA a viable engine for economic development in the Tennessee Valley for another 80+ years.

Thank you for your willingness to serve on the board of the TVA. I will now recognize Ranking Member Whitehouse for his opening statement.

Senator WHITEHOUSE. Madam Chair, we have both the Majority Leader and the Chairman of the Foreign Relations Committee here. I would be more than happy to defer my opening statement to allow them to make their introductions so they can proceed with what must be fairly busy schedules.

Senator CAPITO. With unanimous consent, I think that is a great idea. Thank you for very much, Senator Whitehouse.

With that, I will introduce Senate Majority Leader, Senator McConnell, for his introduction.

Thank you.

OPENING STATEMENT OF HON. MITCH MCCONNELL, U.S. SENATOR FROM THE STATE OF KENTUCKY

Senator MCCONNELL. Chairman Barrasso, Senator Capito, Senator Whitehouse, and colleagues, I appreciate the opportunity to be here today to support the nomination of Kenneth Allen of Hopkins County, Kentucky, to serve on the board of directors of TVA.

President Trump made a strong choice in nominating Kenny to help lead the TVA to fulfill its important mission of delivering affordable and reliable energy and promoting economic development in the region it serves.

Kenny is the right choice to fill this role, and he brings decades of relevant work experience to the position. Further, he has interacted firsthand with the agency for many years through his work in the coal industry.

As members of this Subcommittee know, TVA is a critical resource for approximately 9 million Americans in the southeast, many of them in my State. About 205,000 households in Kentucky rely on TVA for the delivery of electricity. In addition, the TVA is charged with serving as a responsible steward of land and water around the Kentucky Dam and Reservoir which are important to our State economy and culture.

As a native of western Kentucky, Kenny will help govern the TVA well and serve as a prudent caretaker of TVA managed land in Kentucky and throughout the southeast. He understands the particular challenges facing the coal industry in States like mine.

During his career in the private sector, much of his work focused on marketing coal to electric utility companies. I am confident that his wealth of experience and knowledge will benefit the agency as it works to better serve Kentucky and the entire region.

In addition to his nearly 40 years of work experience in the coal industry, he has served on the boards of a number of associations and commissions dedicated to environmental stewardship, energy production, and economic development.

For example, he has shown his commitment to conservation and land preservation by serving as the Commissioner and Vice Chair of the Kentucky Reclamation and Guarantee Fund. For many communities, especially in coal States like mine, land reclamation and redevelopment are critical to economic growth. Kenny understands that priority.

He has also served on the Western Kentucky Consortium of Energy and Environment and the Kentucky Workforce Investment Board of Directors demonstrating his commitment to affordable energy, a clean environment, promoting job creation, and economic development.

Through each of these positions, he has built relationships with TVA communities. I want to congratulate Kenny, his wife Teresa, and their two sons on this important nomination.

I thank the Subcommittee for allowing me to be here today to support him during this process. I was proud to recommend him to President Trump to serve in this position, and I hope the Subcommittee will move forward quickly to process his nomination.

Through this morning's hearing, I am confident that you will find a qualified and talented individual prepared to serve the TVA service region as a member of its board. Once again, thanks for the opportunity to be here this morning and to introduce my friend. Thank you so much.

Senator CAPITO. I would like to thank the Leader. Thank you for taking the time. I appreciate you coming before the Committee.

Senator Corker.

OPENING STATEMENT OF HON. BOB CORKER, U.S. SENATOR FROM THE STATE OF TENNESSEE

Senator CORKER. Thank you, Chairman Capito, Chairman Barrasso, and Ranking Member Whitehouse.

As you know, I have about 13 months left here, and my bucket list is getting filled as I am able to present before EPW today for the first time. I thank you for that.

I am pleased to be with you today to introduce Jeff Smith, nominated to serve on the board of the Tennessee Valley Authority. I would like to extend a warm welcome to Jeff and his family.

I also want to welcome the other three board members today, Kenny Allen, A.D. Frazier, and Skip Thompson, as well as their families.

I would also like to thank the Committee for holding this hearing.

With over 9 million customers, TVA is the largest public power utility in the nation. It is critical for the region that it remains a low cost, reliable producer of electricity, not only for ratepayers, but also for our State business recruitment efforts.

It is important that TVA has a full and well qualified board. Without confirmation of these nominees, the board will lose a quorum at the end of the year.

As Deputy Director of Operations for one of the most prestigious research labs in the country, Oak Ridge National Laboratory, Jeff Smith understands the importance of continuing TVA's mission.

In this position, he gained extensive experience working with TVA as he coordinated with the utility to construct three new substations as part of efforts to modernize the grid at Oak Ridge.

Jeff also has overseen cutting edge research in the energy sector. That knowledge and background will be of great value as our electrical power sector undergoes important changes to support the demands of the growing Tennessee Valley.

In addition to a distinguished career, Jeff has demonstrated a true commitment to east Tennessee through his involvement with multiple community organizations that work to improve the standard of living in the region.

I am confident that Jeff understands the needs of the Tennessee Valley, and I believe he will bring valuable experience to the TVA board. I wholeheartedly support Jeff's nomination and the other nominees here today and believe their diverse backgrounds give them the necessary qualifications to support TVA's important mission.

I appreciate you letting me be here today. Thanks for holding this committee hearing. I hope we will swiftly confirm these nominees.

Thank you.

Senator CAPITO. Thank you, Senator Corker.

Senator Alexander will be here at some point, and we will recognize him.

I will go to the Ranking Member for his statement.

OPENING STATEMENT OF HON. SHELDON WHITEHOUSE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator WHITEHOUSE. That will give me time to fit in my opening statement while we wait for Senator Alexander.

First, let me particularly welcome Jeff Smith and thank him for his service to our country at the Oak Ridge National Laboratory. I have had the opportunity to visit Oak Ridge. It is an astonishingly impressive place where astonishingly impressive work is done for the American people.

Thank you, Chairman Capito and members of the Subcommittee, who are all here today. Welcome to all of the nominees.

As Chairman Corker said, TVA is the nation's largest public utility. It is positioned to lead the development of policies to provide affordable and clean energy. Currently, TVA provides electricity to about 9 million people in Tennessee, Alabama, Mississippi, Kentucky, Georgia, North Carolina, and Virginia.

In 2015 TVA completed a long term planning process to identify future energy needs. In its plan, TVA stated that it would add between 150 mw to 800 mw of large scale solar by 2023 and between 3150 mw and 3800 mw of large scale solar by 2033. These renewable goals are worth pursuing, but the heavy lifting to achieve them has yet to be done.

According to the World Economic Forum, there are more than 30 countries whose renewable energy prices are on par with fossil fuels, in most cases without subsidies. New auctions are sometimes lower than fossil fuels can match.

Here in the U.S., the renewable energy industry currently employs nearly 700,000 Americans and provides 15 percent of our energy supply. Renewable energy capacity in the U.S. has more than tripled since 2008. In 2016 renewables led the way for new additions onto our energy grid.

We are seeing an explosion of renewable energy deployment and generation across the U.S. The five States that get the largest percentage of their electricity from wind are Iowa, Kansas, South Dakota, Oklahoma, and North Dakota.

Texas wind generation hit a record 15 gw in December 2016, meeting 45 percent of the State's power needs, with 18,000 mw installed and another 5,000 mw under construction. In Iowa, MidAmerican is planning to add 2,000 mw of new wind by 2019. Once installed, 85 percent of the energy MidAmerican generates will be renewable.

The nationwide success of renewables shows that outside of Washington and the thrall of the powerful fossil fuel lobby, renewable energy is both a bipartisan issue and a powerful economic engine.

The growth in renewables is driven by innovation and rapidly declining costs, assisted sometimes by State and Federal tax incentives, strong State level renewable portfolio standards, Federal policy, and guidance from Federal agencies like the Federal Energy Regulatory Commission.

FERC, the regional grid operators, and utilities like TVA will continue to play a major role in the modernization of our grid.

I look forward to hearing from today's nominees about how they plan to carry out TVA's long term plan and whether they support the ambitious renewable energy goals the agency set in 2015.

Independent regulators are being pressed by this Administration to reject market forces to prop up the fossil fuel industry. Right now, FERC is considering a rule proposed by the Department of Energy to subsidize the coal industry. That rule has drawn nearly universal opprobrium except from the likes of coal industry magnates such as Bob Murray.

The energy market is infested with subsidies for fossil fuels already. Any new rules at FERC should respect first the Federal Power Act, and not the wishes of well connected political donors like Murray working behind the scenes to direct Administration energy policy. Thank you, Madam Chair.

Senator CAPITO. I would like to recognize the Chairman of the full Committee for a brief statement.

OPENING STATEMENT OF HON. JOHN BARRASSO. U.S. SENATOR FROM THE STATE OF WYOMING

Senator BARRASSO. Thank you, Senator Capito, for holding this Subcommittee hearing today.

You are presiding over a very important matter on behalf of the full Committee, a hearing to consider the nominations of four individuals to serve as members of the Board of Directors of the Tennessee Valley Authority. The significance of these nominations to the TVA region and the American people as a whole is underscored by the interest being demonstrated by our fellow Senate colleagues.

I would like to thank Senator McConnell as well as Senator Corker and Senator Alexander, who will be joining the proceedings shortly, for being with us today to introduce the nominees.

I look forward to the hearing. Thank you, Madam Chairman.

Senator CAPITO. I would ask the nominees to take your seats.

Two gentlemen have been introduced by their home State Senators. Briefly, I would say Mr. A.D. Frazier is from Georgia. He is the President Emeritus of Georgia Oak Partners, LLC. Welcome. Additionally, we have Mr. James R. Thompson, III of Alabama.

He is the Chief Executive Officer of Corporate Billing, LLC. Welcome to you four gentlemen.

As you know, you are the nominees to be members of the Board of Directors of the Tennessee Valley Authority. I want to remind each of you that your full statement has been submitted for the record. I would like to ask that you give a 5 minute synopsis of your statement, and then we will begin questioning.

Mr. Allen, we will begin with you.

STATEMENT OF KENNETH E. ALLEN, NOMINATED TO BE A MEMBER OF THE BOARD OF DIRECTORS OF THE TEN-**NESSEE VALLEY AUTHORITY**

Mr. ALLEN. Thank you, Madam Chairman.

Good morning, Ranking Member Whitehouse and members of the Committee.

My name is Kenny Allen. I am extremely honored to be nominated by President Trump to serve on the Board of Directors of the Tennessee Valley Authority.

I would like to thank Senator McConnell, from my home State of Kentucky, who brought my name to the attention of the President, and gave me a very flattering recommendation earlier, which I appreciate greatly.

I have spent my entire life working in the energy sector and believe that reliable, affordable and environmentally sound energy is the very foundation of our standard of living in our great country.

I believe the Tennessee Valley Authority, by the very nature of its structure and long history, had and will continue to play a major role in the innovation and implementation of energy policy and the production of energy for the future success of our society.

I have led an extremely blessed life. I grew up on a small farm in western Kentucky. I was raised in a strong Christian family and taught a strong work ethic at an early age. I began my career in the coal mining industry in the mid-1960s and spent 50 years working in various capacities with two mining companies, 40 years with the first and 10 years with the second, before my retirement in June of this year.

I began my mining career as an electrician in a mine in Ohio County, Kentucky. Power for the mine was provided from a new power plant at the time, Paradise Generating facility in neighboring Muhlenberg County.

As I stated, it was a relatively new power plant at the time and was then run by TVA and continues to be operated by TVA.

This was my first experience of many with TVA that my career would bring. My fascination and interest in electricity was fueled by the opportunities afforded me working at the mine on large electric machines.

As I worked and self-schooled myself, I was able to advance in my profession. In 1973 I became the chief electrician at one of the largest mines in Western Kentucky. In 1984, I was promoted to the position of chief electrical engineer for the eastern division of the company I worked for and later assumed that responsibility for the entire Midwest for the company.

From there I moved into senior management in the early nineties. Through the years I have served on various State and community boards, commissions, and committees both in civic and governmental entities such as the Chamber of Commerce Board of Directors, Economic Development Board of Directors, Kentucky Workforce Development Board of Directors, and the Governor's Council of Economic Advisors.

I have been the chairman of the Upper Pond River Conservancy District for the past 10 or 12 years, a local conservancy district in my community which I serve. I am Vice Chairman and Commissioner of the Kentucky Reclamation Guaranty Fund.

The early experiences in my career not only gave me insight into the mechanics of our country's vast electrical system; it gave me a great appreciation for all of the many lives and businesses that are touched and involved in the production of the electricity that each American enjoys every day. My time spent in management gave me a better knowledge of our economy as it relates to business, and the important role our infrastructure plays in our day to day lives and jobs, power supply, roads, waterways, communication, and so forth.

TVA plays an important role, not only in power supply, but also the management of our waterways, transportation and powerline corridors, as well as many acres of beautiful forest lands and lakes that enhance our region.

The time that I have spent serving on both civic and governmental boards, commissions, and committees has strengthened my ability to deal with the public, and has helped to broaden my thought process beyond conventional thinking regarding some of the things that impact our daily way of life. I believe that the Tennessee Valley Authority has a responsibility

I believe that the Tennessee Valley Authority has a responsibility to the region it serves to continue to provide reliable and affordable electricity, to maintain the highest standards with regard to the environment, and to continue to manage all of the resources under their care in a professional and responsible manner.

I look forward to the opportunity to serve on this board, if approved by you, and respectfully ask for your consideration in this nomination process.

Thank you very much.

[The prepared statement of Mr. Allen follows:]



Kenneth E. Allen Former Chief Operating Officer Armstrong Energy, Inc.

Mr. Kenneth "Kenny" E. Allen was Executive Vice President of Operations and Chief Operating Officer at Armstrong Coal Company, Inc. from 2014-2017. From 2007 to 2011 he was Vice President of Operations and in 2011 was promoted to Executive Vice President of Operations.

Allen has over 40 years of experience in the coal industry. He began his career with Peabody Coal Company in 1967 as an electrician. In 1971, he moved into a supervisory position and continued to hold various supervisory and management positions, including General Foreman, Chief Electrician, Chief Electrical Engineer, Mine Superintendent, General Manager, Operations Manager, Vice President of Resource Development and Conservancy. Mr. Allen joined Armstrong in 2007. Prior to Armstrong, he served as the President and Operations Manager of Bluegrass Coal Company.

Allen has served as the Chairman of the Executive Boards of the Kentucky Coal Association and the Western Kentucky Coal Association and currently serves as its Member. He has been and continues to be involved in numerous civic and community organizations. Allen currently serves as Commissioner and Vice Chairman of Kentucky Reclamation Guaranty Fund. He serves as the Chairman of the Upper Pond River Conservancy District, and sits on the Board of Directors of the First United Bank and Trust Company. He was a Member of the Kentucky Coal Counsel, the Kentucky Governors Finance Committee and Kentucky Consortium for Energy and the Environment. He served as a Director at Armstrong Energy, Inc. from May 2015 until February 7, 2017.

Mr. Allen attended classes at Madisonville Community College, the University of Evansville, the University of North Carolina and Darden. He and his wife, Teresa have two sons.

Statement of Kenneth "Kenny" E. Allen Nominee to the Tennessee Valley Authority Board of Directors before the U.S. Senate Environment and Public Works Committee Subcommittee on Clean Air and Nuclear Safety Tuesday, November 28, 2018

Good morning, Madam Chair, Ranking member Whitehouse and members of the Committee. I am extremely honored to be nominated by President Trump to serve on the Board of Directors of the Tennessee Valley Authority. I would like to thank Senator Mitchell McConnell from my home state of Kentucky who brought my name to the attention of the President, and all of you for taking time to consider my nomination.

I have spent my entire life working in the energy sector and believe that reliable, affordable, and environmentally sound energy is the very foundation of the standard of living in our great country. I believe that the Tennessee Valley Authority, by the very nature of its structure and long history, has, and will continue to play a major role in the innovation and implementation of energy policy and the production of energy for the future success of our society.

I have led an extremely blessed life. Having grown up on a small farm in rural Western Kentucky, I was raised in a strong Christian family and taught a strong work ethic at a very early age. I began my career in coal mining in the mid-sixties and spent fifty years working in various capacities with two mining companies: forty years with Peabody Energy, and the last ten years before my retirement in June of this year with Armstrong Energy.

I began my mining career as an electrician at a mine in Ohio County, Kentucky. Power for

the mine was provided from the Paradise Generating facility in neighboring Muhlenberg County, a relatively new power plant that was then, and continues to be operated by TVA. This was the first of many experiences with TVA that my career would bring. My fascination and interest in electricity was fueled by the opportunities afforded me at the mine working on the large electric machines. As I worked and self-schooled myself, Iwas able to advance in my profession. In 1973 I became the Chief Electrician at one of the largest mines in Western Kentucky, and in 1984 I was promoted to the position of Chief Electrical Engineer for the Eastern Division of Peabody and later assumed that responsibility for the Mid-West region of the company. From there I moved into senior management in the early nineties. Through the years I have served on various state and community boards, commissions, and committees both in civic and governmental entities such as the Chamber of Commerce Board of Directors, Economic Development Board of Directors, Kentucky Workforce Development Board of Directors, and the Governor's Council of Economic Advisors. I have been the Chairman of the Upper Pond River Conservancy District for the past ten or twelve years and I currently serve as Vice Chairman and Commissioner of the Kentucky Reclamation Guaranty Fund.

The early experiences in my career not only gave me insight into the mechanics of our country's vast electrical system, it gave me a great appreciation for all of the many lives and businesses that are touched and involved in the production of the electricity that each American enjoys every day. My time spent in management gave me a better knowledge of our economy as it relates to business, and the important role our infrastructure plays in our day to day lives and jobs, power supply, roads, waterways, communication, etc. TVA plays an important role, not only in power supply, but also the management of our waterways,

2

transportation and powerline corridors, as well as many acres of beautiful forest lands and lakes that enhance our region. The time that I have spent serving on both civic and governmental boards, commissions, and committees has strengthened my ability to deal with the public, and has helped to broaden my thought process beyond conventional thinking regarding some of the things that impact our daily way of life.

I believe that the Tennessee Valley Authority has a responsibility to the region it serves, to continue to provide reliable and affordable electricity, to maintain the highest standards with regard to the environment, and to continue to manage all of the resources under their care in a professional and responsible manner.

I look forward to the opportunity to serve on this board if approved by you and respectfully ask for your consideration in this nomination process. I welcome the opportunity to serve on this board, and commit to do my very best to help lead this organization in a direction that will promote and preserve our way of life and the principles of our great country. Again, thank you for your time today.

Senate Committee on Environment and Public Works Clean Air and Nuclear Safety Subcommittee Hearing entitled, "Nominations of Kenneth E. Allen, A.D. Frazier, Jeffrey Smith, and James R. Thompson III to be Members of the Board of Directors of the Tennessee Valley Authority" November 28, 2017 Questions for the Record for Mr. Kenneth E. Allen

Full Committee Ranking Member Carper:

Please provide a response to each question, including each sub-part.

1. I strongly believe TVA should be an industry leader, not a laggard, especially when it comes to clean energy and energy efficiency. I've been pleased with TVA's commitments to retiring old, dirty coal power plants and investing in clean energy. TVA's CEO, Bill Johnson, has reported that TVA is expected to easily meet the Clean Power Plan deadlines, even without the EPA rule. The Tennessee Valley is benefiting from these clean ups with cleaner air and with economic growth. For example, Google has announced a \$600 million investment to build a database center at one of TVA's retired coal plants in northern Alabama. Google wants to run the database on renewable energy and knows TVA can provide the clean power. This one project is expected to create at least 100 jobs. My question, if confirmed, do you commit to continuing the clean energy investments and commit to ensuring that TVA is a leader in the clean energy economy?

Answer: If confirmed I commit to researching every decision regarding the production of electricity and the methods and drivers used, and base my decisions on the latest and best economic and technical data available at the time the decision is made.

2. Do you agree to provide complete, accurate and timely responses to requests for information submitted to you by any Member of the Environment and Public Works Committee? If not, why not?

Answer: Yes

3. In December 2007, President Bush's EPA proposed to declare greenhouse gases as a danger to public welfare through a draft Endangerment Finding, stating, "The Administrator proposes to find that the air pollution of elevated levels of greenhouse gas (GHG) concentrations may reasonably be anticipated to endanger public welfare...Carbon dioxide is the most important GHG (greenhouse gas) directly emitted by human activities, and is the most significant driver of climate change." ¹ Do you agree with these statements, if not, why not?

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¹https://insideclimatenews.org/sites/default/files/2007_Draft_Proposed_Endangerment_Finding.pdf

Answer: There has been much debate regarding this subject and many opinions formed, while I do agree that carbon dioxide is a greenhouse gas and that we as humans do contribute to the generation of this gas, I do not have adequate information to confirm that it is the most significant driver of climate change.

4. Do you agree that it is essential that in making decisions, TVA must be shielded from political influence and spared even the appearance of being subject to political influence or considerations? If not, why not?

Answer: Yes

5. The Department of Energy Secretary Perry has sent a proposal to the Federal Energy Regulatory Commission (FERC) — the independent agency that regulates electricity markets — asking the Commission to adopt a rule that would require consumers to pay more to support certain coal and nuclear plants. Some of these payments would go toward coal-fired power plants that are long overdue to be retired. Since TVA can set its own rates and may be restructuring its rate system soon, if confirmed, will you support a rate system that requires customers to pay more to keep coal-fired power plants running or will you support a rate system that continues to grow renewable energy in the Valley and encourages energy efficiency?

Answer: If confirmed, I will support a rate system that employs the most economical and environmentally acceptable means of generating electricity.

6. Why did you forget to mention your coal royalty payments in your original ethics agreement and what steps will you take to recuse yourself from decisions that may impact TVA's usage of coal?

Answer: My coal royalties were fully disclosed on my initial financial disclosure forms. If confirmed, I have agreed to fully divest myself of all coal royalties within ninety days of confirmation. I would recuse myself from any decisions regarding coal until the royalties have been divested.

7. Do you agree with President Trump's decision to withdraw the United States from the International Paris Climate Accord? If so, please explain.

Answer: That decision was made at a very high level. I do not have access to the information on which that decision was made. To voice an opinion without adequate information would be without merit.

8. If confirmed, how will you boost employee morale and ensure TVA retains and recruits the best employees?

Answer: I believe that people are the most important asset that any business organization has. Maintaining a high employee morale and positive attitude is a

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critical component to the future success of TVA. If confirmed, I will work diligently to promote transparency in all decision making and to assure that the integrity of management/employee relations are maintained at the highest standards.

9. If confirmed, what steps will you take to ensure TVA employees will not be working in an intimidating work-place environment and will feel comfortable reporting problems at any TVA facility?

Answer: If confirmed, we will take the steps necessary to assure all employees that workplace intimidation is totally unacceptable and that we welcome any feedback that anyone feels the need to share, whether positive or negative, with regard to their workplace or working conditions.

- 10. There are reports that over 150 employees from the firm hired by TVA to manage the clean-up the coal ash spill at the TVA Kingston Fossil Fuel Power Plant have died or are gravely ill. There are also reports that supervisors may have put the employees cleaning up the coal ash in harm's way by destroying or altering air monitor data.
 - a. If confirmed, will you commit to ensuring TVA is a good actor and is transparent to the employees and families that may be impacted by this issue? Answer: Yes
 - b. If confirmed, will you commit to ensuring TVA employees and those contracted by TVA work in a safe environment at all times?
 Answer: If confirmed, I will commit to doing everything in my power to ensuring that the safety of our employees and contractors is always #1 at TVA.
 - c. If confirmed, what steps will you take to ensure TVA does not have another environmental disaster like the Kingston Fossil Fuel Power Plant coal ash spill? Answer: If confirmed, I will work diligently to assure that sound engineering practices and that acceptable safety factors are included in any and all designs of facilities used in the storage of any waste product generated by TVA in the production of electricity.

Subcommittee Ranking Member Whitehouse:

According to the filings of Armstrong Coal with the U.S. Securities and Exchange Commission, you currently have an "overriding royalty agreement" with the company. In this arrangement, Armstrong Coal pays you \$0.05 per ton of coal mined, extracted and sold from specific reserves the company holds.

11. My understanding is that you have agreed to divest of that royalty interest and your Armstrong stock within 90 days of your confirmation, pursuant to the attached agreement dated November 25, 2017. Is that correct?

Answer: Yes

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12. Once you have completed that divestment, will you have any other source of income from, or financial interest in, an entity that derives income from fossil fuels or any other source of energy? If so, please specify the sources of income and the steps you will take to comply with federal ethics laws.

Answer: All of my financial holdings have been fully disclosed to the OGE, and I have agreed to comply with all ethics laws.

13. I also understand that as part of your ethics agreement with TVA that you will not participate personally and substantially in any particular matter that has a direct and predictable effect on the financial interests of Armstrong Energy Inc. or its subsidiaries unless I first obtain a written waiver or qualify for a regulatory exemption. At this time, do you anticipate needing or seeking a waiver from this commitment? If so, please specify each issue for which a waiver may be sought and the reasons you have for seeking it.

Answer: I do not anticipate any reason to seek a waiver.

The vast majority of scientists agree that climate change is real, and caused by humans.

14. Do you agree that climate change is real?

Answer: Yes

15. Do you agree that humans are the dominant driver of climate change over the past several hundred years?

Answer: While I do believe that humans have a direct effect on our environment, I do not have the knowledge, with regard to climate change, to know the answer to this question.

16. Do you agree that the burning of fossil fuels by humans is the dominant driver of climate change over the past several hundred years?

Answer: I do not have enough knowledge regarding this subject, to answer this question.

17. Do you accept the scientific consensus that the average global temperatures should not reach or exceed +2 degrees Celsius. If temperatures do reach these levels, do you agree that many regions of the world will very likely experience catastrophic changes in the environment that may very likely impact the safety and prosperity of many people?

Answer: I do not know the answer.

The Department of Energy has asked FERC to issue a rule that would have consumers subsidize coal plants in the name of ensuring reliability.

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18. Do you think the federal government should subsidize or otherwise give priority to certain sources of energy under the Federal Power Act?

Answer: No

19. This year the Department of Energy finalized a report on grid reliability that found that cheap natural gas is the primary reason for coal plant closures. Do you agree that cheaper natural gas prices have led coal plant closures in the U.S.?

Answer: The generation of electricity is a competitive business, yes I believe that the low cost of natural gas has certainly displaced coal as a fuel of choice in electrical generation and has influenced the decisions with regard to coal plant closures.

20. Will it be your priority to approach regulatory decisions with a goal of putting the consumer first when it comes to providing clean, reliable, and affordable energy? If not, what other priorities do you believe are more important?

Answer: If confirmed, my first priority will be to work diligently to ensure that TVA provides the cleanest, most reliable, and most affordable energy possible.

- 21. In 2015, TVA completed a long-term planning process to identify future energy needs. In its plan, TVA stated that it would add between 150 and 800 MW of large-scale solar by 2023, and between 3,150 and 3,800 MW of large-scale solar by 2033.
 - a. Do you agree with these goals? If not, why not?

Answer: At this point I have not been made fully aware of future goals and the processes outlined for achieving those goals.

b. If confirmed as a TVA board member, what will you do to ensure these goals are met?

Answer: If confirmed I will work closely with my fellow board members and the TVA management to plan and achieve the goals that we all believe to be in the best interest of all the people we serve.

- 22. Since 2013, reactors have been shut down in Vermont, Nebraska, California, Wisconsin, and Florida and six more plants have announced they will close between 2017 and 2025. In 2016, TVAs Watts Bar became the first U.S. nuclear plant to finish construction in the 21st century.
 - a. Do you think that nuclear energy can play a role in helping the U.S. meet its climate commitments?

Answer: Yes

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b. Is there a role for additional nuclear energy capacity beyond Watts Bar in the TVA region? If so what are those plans and what types of reactors could TVA explore?

Answer: My knowledge of nuclear generation is limited. If confirmed I will educate myself to the extent possible, and do my best to make the correct decisions with regard to future reactors.

- 23. There have been several steps taken by states, businesses, and public utilities to put a value on the costs of carbon emissions. The New York Public Service Commission and Illinois state legislature are working to incorporate a carbon prices into their states' energy markets. Two PUCs in Minnesota and Colorado also ordered utilities to incorporate social costs of carbon into their decision planning.
 - a. Does carbon pollution impose an economic cost to the American public?

Answer: I believe that all pollution has an economic cost to the American public.

b. How would placing a value on this cost help to encourage the development of carbon-free technologies?

Answer: I am not sure I have enough information on the subject to answer that question.

Senator CAPITO. Thank you, Mr. Allen. Mr. Frazier.

STATEMENT OF A.D. FRAZIER, NOMINATED TO BE A MEMBER OF THE BOARD OF DIRECTORS OF THE TENNESSEE VALLEY AUTHORITY

Mr. FRAZIER. Thank you, Madam Chairman Capito, Ranking Member Whitehouse, and distinguished members of the Committee.

I would like to thank you for your consideration of my nomination.

My name is A.D. Frazier. I appreciate having been nominated by President Trump and supported by Senators Isakson and Perdue to serve on the Board of Directors of the Tennessee Valley Authority.

It is also an honor because my home is in Mineral Bluff, Georgia, in the North Georgia Mountains. Mineral Bluff is 6 miles from Lake Blue Ridge, Georgia, at the head waters of the Ocoee River. You may have heard of the Ocoee River because of the 1996 Olympic whitewater competition.

When I was chief operating officer of the Atlanta Committee for the Olympic Games, I signed the contract to put whitewater shalom canoeing on the Ocoee. I have never been more grateful for support in my life. We worked closely with TVA to ensure the Ocoee River had the appropriate flow for the whitewater events.

I am proud to say, every river event that was watched by people around the world was made possible because of the dedicated employees of the Tennessee Valley Authority. The course remains the finest one in the United States and is still visited by athletes from around the world.

Aside from the Olympics, I am honored to be associated with the Tennessee Valley Authority because of its mission of service to improve the lives of the 9 million people of the Tennessee Valley. I live and work among these people every day. I cannot imagine the Appalachian Region without TVA.

As a bit about my professional background; I am President Emeritus of Georgia Oak Partners, a private equity business. My associates and I provide financing tools and resources to help small Georgia companies grow faster.

As president and CEO of INVESCO, Inc., we helped people and companies from around the world to make smart business investment decisions in the United States. When I served as chairman and CEO of Danka Business Systems, we provided technology solutions to businesses in the United States and Europe.

Earlier in my career, I served as chairman of the board of Gold Kist, Inc.; as president and COO of Caremark Rx, Inc.; and as chairman of the board and CEO of the Chicago Stock Exchange.

I served on the compensation committee of Apache Corporation, an upstream independent oil and gas company, for 19 years. I also served on the boards of Gevity, Inc.; Rock Tenn Corp.; and R.J. Reynolds Tobacco Co. In 2010 I chaired a task force for the Georgia Legislature to examine how tax policy impacts economic development.

My career has required knowledge of topics like strategic planning, executive compensation, asset liability management, risk management, public policy, environmental stewardship, and economic development, all of which are important aspects of TVA leadership.

Speaking of economic development, TVA's efforts in just the last 5 years have helped to increase the number of companies that have decided to invest in the region, 418,000 jobs since 2011 and \$48 billion in commitment of capital.

I am confident my business experience has prepared me for an opportunity to serve as a member of this board. I firmly believe in TVA's commitment to do the right things for the region, to provide reliable electric power, to be responsible managers of public lands and water, and to fulfill its mission to make life better for all those who live in the region, as I do, through its economic development efforts.

Madam Chairman and members of the Committee, I welcome this opportunity to be considered and respectfully request your support of my nomination.

Thank you.

[The prepared statement of Mr. Frazier follows:]



A. D. Frazier President Emeritus Georgia Oak Partners

A.D. Frazier has spent his entire 35-year career as an executive manager in the for-profit, not-for-profit and government sectors. His career has included extensive involvement with corporate and consumer lending, mergers, acquisitions and divestitures, strategic planning, corporate governance, human resource management and marketing.

A.D.'s executive leadership roles have included serving as the Chief Operating Officer and second in command of the Atlanta Committee for the Olympic Games, President and Chief Executive Officer of INVESCO, Inc., Chairman and Chief Executive Officer of Danka Business Systems, Chairman of the Board of Gold Kist, Inc., President and Chief Operating Officer of Caremark Rx, Inc, and Chairman of the Board and Chief Executive Officer of the Chicago Stock Exchange. His board membership experience includes Apache Corporation, Gevity, Inc., Rock Tenn Corp., and R.J. Reynolds Tobacco Co., among others.

He has served on a number of not-for-profit boards including The National Council on the Humanities (Presidential Appointee), The Atlanta Symphony Orchestra Board (Chairman), Georgia Public Television Commission (First Chairman), the Alliance Theater (Atlanta, GA), Georgia Board of Corrections, Evanston Hospital Corporation (Chairman of Finance Committee) (Evanston, IL), Neighborhood Housing Services of Atlanta (First Chairman) and NHS of Chicago. He also served in the Carter Administration (Office of Management and Budget).

A.D. has received numerous professional and civic awards, some of which include The Olympic Order in Gold (only COO to receive the IOC's highest service award), Georgia Trend Magazine's Most Influential Georgians, (1995-1996) and Honorary Doctor of Business Administration (Piedmont College). In 2008, he was recognized with the Georgia Distinguished Humanitarian Award by The Australian/New Zealand American Chamber of Commerce (ANZACC) and UNICEF.

A.D. received an AB and JD from The University of North Carolina at Chapel Hill and he completed his Harvard Business School's Advanced Management Program. He is a member of the North Carolina Bar, the American Bar Association, the North Carolina Bar Association, the Georgia Bar Association, the Atlanta Bar Association, and the Association for Conflict Resolution. He served for six years as an officer in the US Army Reserve.

He and his wife, Clair Wofford Frazier are residents of Atlanta and Mineral Bluff, GA. Mrs. Frazier is a Trustee of Young Harris College.

Statement of A.D. Frazier Nominee to the board of directors of the Tennessee Valley Authority before the U.S. Senate Committee on Environment and Public Works Subcommittee on Clean Air and Nuclear Safety Tuesday, November 28, 2017

Chairman Capito, Ranking Member Whitehouse and distinguished members of the committee, I would like to thank you for your consideration of my nomination and for this opportunity to appear before you today.

My name is A.D. Frazier.

I am honored to have been nominated by President Trump to serve on the board of directors of the Tennessee Valley Authority.

Being asked to serve on the TVA board is an honor because my home is in Mineral Bluff, Georgia – in the North Georgia Mountains, about 100 miles from Atlanta.

I mention this because Mineral Bluff is just six miles from Blue Ridge, Georgia. In my opinion, it is one of the most beautiful places that TVA serves.

TVA's Blue Ridge Dam, on the Toccoa River, is just a few miles from my home. The Toccoa is actually the headwaters of the Ocoee River. The name simply changes when it crosses the state line into the Peach State.

You may have heard of the Ocoee River because of the 1996 Olympics whitewater competitions. When I was Chief Operating Officer and second-in-command of the Atlanta Committee for the Olympic Games, we worked closely with TVA to ensure the Ocoee River had the appropriate flow for the whitewater events. And, I am proud to say, every river event that was watched by people around the world was made possible because of the dedicated employees of the Tennessee Valley Authority.

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But, aside from the Olympics, I am honored to be associated with the Tennessee Valley Authority because of TVA's mission of service to improve the lives of the 9 million people of the Tennessee Valley. I am excited to be considered for a seat on the board of directors because it would provide me the opportunity to help ensure TVA continues its good works.

My work with corporate and consumer lending, mergers, acquisitions and divestitures, strategic planning, corporate governance, human resource management and marketing has shown me the importance of quality public education and a trained or trainable work force.

Actually, my entire 35-year career in executive business management has taught me the importance of TVA's work.

As president of Georgia Oak Partners, LLC, my associates and I provide the right tools and resources to help companies grow faster. As president and Chief Executive Officer of INVESCO, Inc., we helped people and companies from around the world to make smart business investments to achieve their financial objectives. And, when I served as chairman and Chief Executive Officer of Danka Business Systems, we provided technology solutions to businesses from around the world.

Earlier in my career, as chairman of the board of Gold Kist, Inc.; as president and Chief Operating Officer of Caremark Rx, Inc.; and, as chairman of the board and Chief Executive Officer of the Chicago Stock Exchange – and even as a board member for Fortune 500 Company Apache Corporation; Gevity, Inc.; Rock Tenn Corp.; and, R.J. Reynolds Tobacco Co. – each of my experiences has reinforced the importance the need for having a trained or trainable labor force, and quality K-through-12 public education.

TVA supports our public schools through programs such as its robotics programs that teach students in our public schools the practical aspects of math and science.

TVA also has successful programs that help bring much-needed jobs to the region. They are doing this by working with state and local governments and non-governmental agencies, and by helping our young people to be better prepared for the jobs of tomorrow.

By helping to bring in a variety of employers to the Valley, TVA is helping to diversify employment opportunities by providing opportunities for a trained and trainable labor force. This is particularly important because a broad industrial base allows for greater opportunities for career growth and economic diversity. And, that helps everyone.

In my opinion, TVA's efforts in just the last five years have helped to increase the number of companies that have decided to locate to the region. And these companies are bringing much-needed jobs.

I am confident my business experiences have prepared me for the opportunity to serve as a member of the board of directors of the Tennessee Valley Authority. I firmly believe in TVA's commitment to doing the right things for the region: to provide reliable electric power to the citizens and businesses of the Valley, responsibly manage its public lands and water, and fulfill its mission to make life better through its economic development efforts.

Mr. Chairman and members of this committee, I welcome this opportunity to be considered to serve on the TVA board of directors and respectfully request your support of my nomination.

Thank you for your consideration and for providing me this opportunity to be here with you today.

Senate Committee on Environment and Public Works Clean Air and Nuclear Safety Subcommittee Hearing entitled, "Nominations of Kenneth E. Allen, A.D. Frazier, Jeffrey Smith, and James R. Thompson III to be Members of the Board of Directors of the Tennesse Valley Authority" November 28, 2017 Questions for the Record for Mr. A.D. Frazier

Full Committee Ranking Member Carper:

Please provide a response to each question, including each sub-part.

I strongly believe TVA should be an industry leader, not a laggard, especially when it comes to clean energy and energy efficiency. I've been pleased with TVA's commitments to retiring old, dirty coal power plants and investing in clean energy. TVA's CEO, Bill Johnson, has reported that TVA is expected to easily meet the Clean Power Plan deadlines, even without the EPA rule. The Tennessee Valley is benefiting from these clean ups with cleaner air and with economic growth. For example, Google has announced a \$600 million investment to build a database center at one of TVA's retired coal plants in northern Alabama. Google wants to run the database on renewable energy and knows TVA can provide the clean power. This one project is expected to create at least 100 jobs. My question, if confirmed, do you commit to continuing the clean energy investments and commit to ensuring that TVA is a leader in the clean energy economy?

Response: Yes.

2. Do you agree to provide complete, accurate and timely responses to requests for information submitted to you by any Member of the Environment and Public Works Committee? If not, why not?

Response: Yes.

3. In December 2007, President Bush's EPA proposed to declare greenhouse gases as a danger to public welfare through a draft Endangerment Finding, stating, "The Administrator proposes to find that the air pollution of elevated levels of greenhouse gas (GHG) concentrations may reasonably be anticipated to endanger public welfare...Carbon dioxide is the most important GHG (greenhouse gas) directly emitted by human activities, and is the most significant driver of climate change." ¹ Do you agree with these statements, if not, why not?

⁴https://insideclimatenews.org/sites/default/files/2007_Draft_Proposed_Endangerment_Finding.pdf

Response: I do not have enough information, nor am I qualified scientifically to determine whether carbon dioxide is the most significant driver of climate change. However, I do agree that carbon dioxide contributes to climate change.

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4. Do you agree that it is essential that in making decisions, TVA must be shielded from political influence and spared even the appearance of being subject to political influence or considerations? If not, why not?

Response: Yes.

5. The Department of Energy Secretary Perry has sent a proposal to the Federal Energy Regulatory Commission (FERC) — the independent agency that regulates electricity markets — asking the Commission to adopt a rule that would require consumers to pay more to support certain coal and nuclear plants. Some of these payments would go toward coal-fired power plants that are long overdue to be retired. Since TVA can set its own rates and may be restructuring its rate system soon, if confirmed, will you support a rate system that requires customers to pay more to keep coal-fired power plants running or will you support a rate system that continues to grow renewable energy in the Valley and encourages energy efficiency?

Response: I do not know the details of the proposal from DOE to FERC, but if confirmed, I will examine this proposal as it relates to TVA and its missions of providing low cost power, economic development and environmental stewardship.

6. Do you agree with President Trump's decision to withdraw the United States from the International Paris Climate Accord? If so, please explain.

Response: I do not know the factors or details of President Trump's decision with regard to the International Paris Climate Accord, but if confirmed, I will examine this issue as it relates to TVA and its three fold mission including providing low cost, reliable electricity, economic development and environmental stewardship.

7. If confirmed, how will you boost employee morale and ensure TVA retains and recruits the best employees?

Response: If confirmed, as a member of the Board of Directors of TVA, it will be the Board's responsibility to ensure that the CEO manages the corporation in ways that ensure TVA retains and recruits the best employees.

8. If confirmed, what steps will you take to ensure TVA employees will not be working in an intimidating work-place environment and will feel comfortable reporting problems at any TVA facility?

Response: If confirmed, it will be the mine and the Board's responsibility to oversee senior management to ensure that the environment is a positive one for TVA employees.

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At such time, if there is an issue that needs attention, I will seek to understand any existing concerns an support the steps needed to correct them.

- 9. There are reports that over 150 employees from the firm hired by TVA to manage the clean-up the coal ash spill at the TVA Kingston Fossil Fuel Power Plant have died or are gravely ill. There are also reports that supervisors may have put the employees cleaning up the coal ash in harm's way by destroying or altering air monitor data.
 - a. If confirmed, will you commit to ensuring TVA is a good actor and is transparent to the employees and families that may be impacted by this issue? Response: Yes.
 - b. If confirmed, will you commit to ensuring TVA employees and those contracted by TVA work in a safe environment at all times? Response: Yes.
 - c. If confirmed, what steps will you take to ensure TVA does not have another environmental disaster like the Kingston Fossil Fuel Power Plant coal ash spill? Response: If confirmed, I will support the TVA mission of environmental stewardship, better understand what measures are taken to minimize operational risks and make decisions on those suggested measures.

Subcommittee Ranking Member Whitehouse:

The vast majority of scientists agree that climate change is real, and caused by humans.

10. Do you agree that climate change is real?

Response: Yes.

11. Do you agree that humans are the dominant driver of climate change over the past several hundred years?

Response: I agree that human activity contributes to climate change.

12. Do you agree that the burning of fossil fuels by humans is the dominant driver of climate change over the past several hundred years?

Response: I agree that burning fossil fuels increases greenhouse gas emissions which contribute to climate change.

13. Do you accept the scientific consensus that the average global temperatures should not reach or exceed +2 degrees Celsius. If temperatures do reach these levels, do you agree that many regions of the world will very likely experience catastrophic changes in the environment that may very likely impact the safety and prosperity of many people?

Response: Yes, I agree that catastrophic changes in the environment would likely impact the safety and prosperity of many people.

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The Department of Energy has asked FERC to issue a rule that would have consumers subsidize coal plants in the name of ensuring reliability.

14. Do you think the federal government should subsidize or otherwise give priority to certain sources of energy under the Federal Power Act?

Response: I am not familiar with the details of the Department of Energy's request to FERC. If confirmed, I will examine this information and make an educated decision based on how the request would affect TVA's mission of providing low cost, reliable power to the people of the Tennessee Valley region.

15. This year the Department of Energy finalized a report on grid reliability that found that cheap natural gas is the primary reason for coal plant closures. Do you agree that cheaper natural gas prices have led coal plant closures in the U.S.?

Response: Yes.

16. Will it be your priority to approach regulatory decisions with a goal of putting the consumer first when it comes to providing clean, reliable, and affordable energy? If not, what other priorities do you believe are more important?

Response: If confirmed, it will be my priority to make decisions that support the mission of the TVA, providing the lowest cost, affordable energy.

- 17. In 2015, TVA completed a long-term planning process to identify future energy needs. In its plan, TVA stated that it would add between 150 and 800 MW of large-scale solar by 2023, and between 3,150 and 3,800 MW of large-scale solar by 2033.
 - a. Do you agree with these goals? If not, why not? Response: At this time I do not have enough information to comment on this. If confirmed, I will examine TVA's long-term plan to identify future energy needs and support future energy portfolios that meet TVA's long term generating portfolio goals.
 - b. If confirmed as a TVA board member, what will you do to ensure these goals are met?

Response: I will need to understand how these goals fit into TVA's long term generating portfolio goals and ensure that they meet the mission to provide the lowest cost power for the people of the Tennessee Valley region.

18. Since 2013, reactors have been shut down in Vermont, Nebraska, California, Wisconsin, and Florida and six more plants have announced they will close between 2017 and 2025. In 2016, TVAs Watts Bar became the first U.S. nuclear plant to finish construction in the 21st century.

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- a. Do you think that nuclear energy can play a role in helping the U.S. meet its climate commitments? Response: Yes.
- b. Is there a role for additional nuclear energy capacity beyond Watts Bar in the TVA region? If so what are those plans and what types of reactors could TVA explore?
 Response: If confirmed, I will examine this issue and be better able to determine TVA's future energy capacity needs.
- 19. There have been several steps taken by states, businesses, and public utilities to put a value on the costs of carbon emissions. The New York Public Service Commission and Illinois state legislature are working to incorporate a carbon prices into their states' energy markets. Two PUCs in Minnesota and Colorado also ordered utilities to incorporate social costs of carbon into their decision planning.
 - a. Does carbon pollution impose an economic cost to the American public? Response: I do not have enough information to determine the extent to which carbon pollution imposes an economic cost to the American public. If confirmed, and this issue relates directly to my position on the Board and meeting TVA's mission, I will examine this issue more thoroughly.
 - b. How would placing a value on this cost help to encourage the development of carbon-free technologies?
 Response: Any external cost impacts the advancement of technology, the extent to which such would do so in this case is outside my specific area of expertise. However, if confirmed, I will examine this issue further as it relates to TVA and TVA's mission.

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Senator CAPITO. Thank you, Mr. Frazier. Mr. Smith.

STATEMENT OF JEFFREY SMITH, NOMINATED TO BE A MEM-BER OF THE BOARD OF DIRECTORS OF THE TENNESSEE VALLEY AUTHORITY

Mr. SMITH. Chairman Capito, Ranking Member Whitehouse, and other members of the Committee, thank you for the opportunity to appear before you today.

I am honored to have my wife and two of my three daughters here to support me.

My name is Jeffrey W. Smith, and I am the Deputy for Operations at Oak Ridge National Laboratory. I am honored to have been nominated for this opportunity.

In 1999 I moved my family to east Tennessee to take on the role of Deputy for Operations at Oak Ridge National Laboratory. The laboratory consumes significant amounts of power, and as the Chief Operating Officer, I know large amounts of reliable, low cost electricity is important to the missions assigned by the Department of Energy to Oak Ridge.

The laboratory often works with TVA to help recruit new business to the region, and in my role as a senior executive, I have participated in these recruitments and seen firsthand the strength of TVA as driver of economic development.

More personally, our family owns a home on Norris Lake, one of TVA's reservoirs. As a result, I understand the complex dynamic between production, flood management, and recreational use of the water resources under TVA control.

Based on my professional and personal experiences with TVA over the last 18 years while I have been in Tennessee, it is my belief that to successfully fulfill its mission to improve the quality of life for all who live and work in the Valley, TVA must provide clean, reliable, resilient, low cost power to our homes and businesses while protecting the waterways we enjoy and the air we breathe.

Oak Ridge National Laboratory has a longstanding relationship with the Tennessee Valley Authority, going all the way back to the 1940s and the Manhattan Project. The Manhattan Project needed a site with ample fresh water and access to tremendous amounts of power.

Sixteen miles downstream from TVA's Norris Dam, a site was selected to be the home of what is known as the secret city. That city would produce the nuclear materials that would accelerate the end of World War II and help win the cold war. Simply put, if it had not been for TVA, there would be no Oak Ridge National Laboratory. I am grateful for that.

During my 18 years at the laboratory, I have had the privilege to lead a \$400 million modernization effort that has been instrumental in transforming the laboratory with the help of TVA.

I oversee the day to day operations of an organization with a \$1.4 billion annual operating budget; we entertain over 5,000 researchers and guests every day at the laboratory and maintain the infrastructure of a small city.

Oak Ridge National Laboratory operates one of two Department of Energy nuclear reactors. Granted the High Flux Isotope Reactor at Oak Ridge is only 1/10th the scale of today's commercial power reactors such as those in the TVA fleet, but responsibility for this reactor has taught me something about the importance of a strong nuclear safety culture.

I have also had the opportunity to be involved with TVA in several economic development recruitments in which the laboratory has partnered with the State of Tennessee and local municipalities to attract new companies.

I can tell you that low cost, clean—and clean comes up more and more often these days—and reliable power is always a consideration in site selection. My personal experience tells me TVA is dedicated to working with local and State governments to encourage economic development and create jobs in the region. This is something that I will continue to support.

I have had a longstanding relationship with Battelle, a not for profit company that specializes in managing several national laboratories. I have served on the governing boards for the Pacific Northwest National Laboratory, the Brookhaven National Laboratory, the Idaho National Laboratory, and the National Renewable Energy Laboratory.

As a result, I have been involved in the recruitment and selection of several laboratory directors, the CEO of these organizations. If there should be a change in leadership at TVA during my appointment, I believe I can add something to that process through those experiences.

Î have interacted with TVA as an industrial user, as a partner in infrastructure expansion, and to promote economic development. These engagements have given me useful insight into the breadth and depth of TVA's operations, and its importance to the region. I believe my background and experience has prepared me for the

I believe my background and experience has prepared me for the challenge and responsibility of joining the TVA board. If confirmed, I am committed to working with my fellow board members and TVA staff to ensure that TVA continues to fulfill its mission to serve the people of the Tennessee Valley.

I appreciate your consideration of my nomination, and thank you for the opportunity to be here today.

[The prepared statement of Mr. Smith follows:]



Jeff W. Smith Executive Vice President UT-Battelle LLC

Jeff Smith is the Executive Vice President for Operations for UT-Battelle, LLC, and serves as the Deputy for Operations at Oak Ridge National Laboratory, the U.S. Department of Energy's largest multi-program science and energy laboratory with annual budget of \$1.5 billion.

Smith has overseen ORNL operations since UT-Battelle began managing the laboratory in April 2000. His responsibilities include facilities operations; environment, safety and health; business services; security; human resources for the Laboratory's 4,700 employees; internal and external communications; and information technology, and technology transfer.

Smith led a \$400 million modernization of ORNL's main campus that transformed the dated facilities of the Manhattan Project-era site into one of the world's most modern laboratories. Through unique partnerships developed with the state of Tennessee, the private sector, and federal agencies, he oversaw construction of new lab space, office buildings, and technical facilities that include the world's foremost center for high-performance computing. Smith also serves as President of UT-Battelle Development Corporation, a non-profit special purpose entity created to support the private sector development of facilities at ORNL.

Soon after arriving at ORNL, Smith coordinated efforts to improve the safety and reliability of the High Flux Isotope Reactor, the nation's premier research reactor. He supported the construction on time and on budget of the \$1.4B Spallation Neutron Source, the world's most powerful neutron science facility. More recently he led the effort to construct a Carbon Fiber Technology Facility to advance the development of low cost carbon fiber for the automotive and other industries.

ORNL's research capabilities such as the Spallation Neutron Source and the Center for High-Performance Computing consume large amounts of power. Smith worked with the Tennessee Valley Authority to construct three new substations on the ORNL campus and remake the Laboratory's electrical distribution system. Combined with a new steam plant and expanded chilled water capacity, the scope and quality of the Laboratory's power infrastructure exceeds that of any laboratory in the DOE complex.

During a period of unprecedented expansion and modernization, the Laboratory's safety performance improved to record levels while operating costs were sharply reduced.

Smith's success at ORNL led to an expansion of his responsibilities with Battelle Memorial Institute, the University of Tennessee, and with the Department of Energy. Smith serves as Battelle's senior leader on operational matters, providing oversight and coordination across the nationwide system of laboratories managed by Battelle. He has participated in the development of all of Battelle's laboratory bids in the last 10 years and has served on the Board of Directors at Pacific Northwest National Laboratory, Brookhaven National Laboratory, the National Renewable Energy Laboratory, and the Idaho National Laboratory. In addition, Smith currently
serves on the governing boards of the University of Tennessee's Cherokee Farm Development Corporation and Oak Ridge Associated Universities.

Smith is past chairman of the Department of Energy's National Laboratory Chief Operations Officers working group and has served on numerous DOE special working groups. He served a six-month special assignment in 2002 in support of the White House's Transition Planning Office, participating in the creation of the U.S. Department of Homeland Security.

Smith is active in Oak Ridge and Knoxville community groups and initiatives. He has served on the governing boards of the East Tennessee Economic Council, Aid to Distressed Families of Appalachian Counties, and the Anderson Country Red Cross. In 2003-2006 he played a key role in assisting with a \$56 million renovation and expansion of Oak Ridge High School.

Smith has a personal passion for technology transfer. He served as an advisor to Battelle Ventures, an investment and startup capital arm of Battelle responsible for \$200M of startup capital. He was the motivation behind creation of the ORNL Science & Technology Park in cooperation with the Community Reuse Organization of East Tennessee. He was appointed by former Knoxville Mayor Bill Haslam as a member of the Metropolitan Knoxville Airport Authority, where he played a major role in the recruitment of Cirrus Aircraft to Knoxville and is a strong advocate of the proposed Oak Ridge Airport.

Graduating from the Ohio State University in 1981 with a B.S. degree in Ceramic Engineering, Smith worked briefly for the Anchor Hocking Glass corporation before joining Battelle in 1984 and continues his Battelle association today.

An instrument-rated private pilot, Smith built and flew a 2-person sport aerobatic airplane. His personal interests also led him through a frame-off restoration of a 1953 Chevrolet pickup truck. He has built two homes and extensively remodeled others, performing most tasks himself. He volunteers with his wife Debbie to assist Homes of Love, an organization that provides for a family living environment for at risk children in Southeast Asia and Africa.

Jeff and Debbie reside in Knoxville and have three daughters and two granddaughters.

Statement of Jeffery W. Smith Deputy for Operations, Oak Ridge National Laboratory Nominated by President Trump for Board Member for the Tennessee Valley Authority

> Before the Committee on Environment and Public Works United States Senate DATE

Chairman Barrasso, Ranking Member Carper, and Members of the Committee, thank you for the opportunity to appear before you today. My name is Jeffrey W. Smith and I am the Deputy for Operations at Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tennessee. I am honored to have been nominated by President Trump to serve on the Tennessee Valley Authority Board of Directors.

In 1999, I moved my family to East Tennessee to take on the role of Deputy for Operations at Oak Ridge National Laboratory. The laboratory consumes significant amounts of power, and as the Chief Operating Officer, I know large amounts of reliable, low cost electricity is important to executing the important missions assigned by the Department of Energy to Oak Ridge. The laboratory often works with TVA to help recruit new business to the TVA region, and in my role as a senior executive I have participated in these recruitments and seen first-hand the strength of TVA as driver of economic development. More personally, I own a home on Norris Lake, one of TVA's reservoirs. As a result, I understand the complex dynamic between hydropower production, flood management, and recreational use of the water resources under TVA control. Based on my professional and personal experiences with TVA over the last 18 years, it is my belief that to successfully fulfill its mission to improve the quality of life for all who live and work in the Valley, TVA must provide clean, reliable, resilient, low-cost power to our homes and businesses, while protecting the waterways we enjoy, and the air we breathe.

ORNL has longstanding relationship with the Tennessee Valley Authority, going all the way back to the 1940s and the Manhattan Project. The Manhattan Project needed a site with ample fresh water, ridges and valleys, and, most importantly, access to tremendous amounts of power. Sixteen miles downstream from TVA's Norris Damn a site was selected as the home of the secret city that would produce the nuclear materials that accelerated the end of World War II and helped win the Cold War. As the manufacturing hub of the Manhattan Project, Oak Ridge was home to the Y-12 centrifuges, the K-25 gaseous diffusion plant, and the X-10 graphite reactor. Millions of kilowatts of reliable TVA energy made possible the essential war time work in Oak Ridge. When the war ended the graphite reactor served as the foundation for an open science laboratory that became Oak Ridge National Laboratory. Simply put, without TVA there would be no Oak Ridge National Laboratory.

During my 18 years at ORNL, I have had the privilege to lead a \$400 million modernization effort that has been instrumental in transforming ORNL into the Department of Energy's largest open science laboratory. I oversee the day to day and strategic operations challenges faced by an organization with a \$1.4 billion annual operating budget, 4,700 employees, and close to 200 buildings spanning 4,400 acres. I am responsible for the safe and efficient operations of the facilities and support organizations that allow ORNL's researchers to deliver scientific discoveries and technical breakthroughs that accelerate

the development and deployment of solutions to the most difficult scientific problems in energy and national security.

Oak Ridge National Laboratory operates one of two Department of Energy research reactors. Granted, the High Flux Isotope Reactor is roughly 1/10th the scale of today's commercial power reactors such as those in the TVA fleet, but the responsibility for this reactor has taught me something about the important of a strong nuclear safety culture.

I have also had the opportunity to be involved with TVA in several economic development recruitments in which the laboratory has partnered with the State of Tennessee, local municipalities, and TVA to attract new companies to the region. I can tell you that low cost, clean and reliable power is always a consideration in site selection. My personal experience tells me TVA is dedicated to working with local and state governments to encourage economic development and create jobs in the region and this is something that I will continue to support.

I have had a long standing relationship with Battelle Memorial Institute, a not-for-profit company that specializes in managing several R&D laboratories. I have served on the governing Boards for the Pacific Northwest National Laboratory, the Brookhaven National Laboratory, the Idaho National Laboratory, the National Renewable Energy Laboratory. As a result, I've been involved in the recruitment and selection of several laboratory directors and in the event there is a change in leadership at TVA during my appointment, I believe I can add something to this process.

I have interacted with TVA as an industrial user, as a partner in infrastructure expansion, and to promote economic development. These engagements have given me useful insight into the breadth and depth of TVA's operations, and to its importance for our region. I believe my background and experience has prepared me for the challenge and responsibility of joining the TVA board.

If confirmed, I am committed to working with my fellow board members and TVA staff to ensure that TVA continues to fulfill its mission to serve the people of the Tennessee Valley by focusing on energy, environment, and economic development. I appreciate your consideration of my nomination and thank you for the opportunity to be here today.

Senate Committee on Environment and Public Works Clean Air and Nuclear Safety Subcommittee Hearing entitled, "Nominations of Kenneth E. Allen, A.D. Frazier, Jeffrey Smith, and James R. Thompson III to be Members of the Board of Directors of the Tennessee Valley Authority" November 28, 2017 Questions for the Record for Mr. Jeffrey Smith

Full Committee Ranking Member Carper:

Please provide a response to each question, including each sub-part.

I strongly believe TVA should be an industry leader, not a laggard, especially when it comes to clean energy and energy efficiency. I've been pleased with TVA's commitments to retiring old, dirty coal power plants and investing in clean energy. TVA's CEO, Bill Johnson, has reported that TVA is expected to easily meet the Clean Power Plan deadlines, even without the EPA rule. The Tennessee Valley is benefiting from these clean ups with cleaner air and with economic growth. For example, Google has announced a \$600 million investment to build a database center at one of TVA's retired coal plants in northern Alabama. Google wants to run the database on renewable energy and knows TVA can provide the clean power. This one project is expected to create at least 100 jobs. My question, if confirmed, do you commit to continuing the clean energy investments and commit to ensuring that TVA is a leader in the clean energy economy?

Response: Yes, while mindful of TVA's charter that seeks attainment of three goals to include economic development, environmental stewardship, and low cost power.

2. Do you agree to provide complete, accurate and timely responses to requests for information submitted to you by any Member of the Environment and Public Works Committee? If not, why not?

Response: Yes

3. In December 2007, President Bush's EPA proposed to declare greenhouse gases as a danger to public welfare through a draft Endangerment Finding, stating, "The Administrator proposes to find that the air pollution of elevated levels of greenhouse gas (GHG) concentrations may reasonably be anticipated to endanger public welfare...Carbon dioxide is the most important GHG (greenhouse gas) directly emitted by human activities, and is the most significant driver of climate change." ¹ Do you agree with these statements, if not, why not?

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¹https://insideclimatenews.org/sites/default/files/2007_Draft_Proposed_Endangerment_Finding.pdf

Response: I believe GHG emissions are contributing to climate change and that in the extreme, climate change can endanger the public welfare. I am not qualified scientifically regarding which GHG is the most important.

4. Do you agree that it is essential that in making decisions, TVA must be shielded from political influence and spared even the appearance of being subject to political influence or considerations? If not, why not?

Response: Yes

5. The Department of Energy Secretary Perry has sent a proposal to the Federal Energy Regulatory Commission (FERC) — the independent agency that regulates electricity markets — asking the Commission to adopt a rule that would require consumers to pay more to support certain coal and nuclear plants. Some of these payments would go toward coal-fired power plants that are long overdue to be retired. Since TVA can set its own rates and may be restructuring its rate system soon, if confirmed, will you support a rate system that requires customers to pay more to keep coal-fired power plants running or will you support a rate system that continues to grow renewable energy in the Valley and encourages energy efficiency?

Response: I currently do not have an understanding of how TVA sets their rates. If confirmed, I am committed to understanding how this is done and to support a rate structure that is as consistent with TVA's founding charter, i.e. environmental stewardship, low cost power, and technology innovation.

6. Do you agree with President Trump's decision to withdraw the United States from the International Paris Climate Accord? If so, please explain.

Response: If confirmed, I must set aside my personal perspective on the decision but I would be obligated to consider the implications of that decision on TVA's mission. At this time I do not understand what implications, if any, withdrawal has on TVA's power generation plans.

7. If confirmed, how will you boost employee morale and ensure TVA retains and recruits the best employees?

Response: As a board member I will not have a direct relationship with any of the employees except the CEO. It will be my intent to ensure the CEO is managing the business in such a way that the employees are proud to be associated with TVA and potential new recruits see TVA as an employer where they can have productive and fulfilling careers.

 If confirmed, what steps will you take to ensure TVA employees will not be working in an intimidating work-place environment and will feel comfortable reporting problems at any TVA facility?

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Response: Creating the right culture is the responsibility of senior leadership. I would like to understand senior leadership's view of the current state of the culture, and what actions they are taking to address any issues that may exist. Once obtained, I would work to support needed actions that will address those concerns.

- 9. There are reports that over 150 employees from the firm hired by TVA to manage the clean-up the coal ash spill at the TVA Kingston Fossil Fuel Power Plant have died or are gravely ill. There are also reports that supervisors may have put the employees cleaning up the coal ash in harm's way by destroying or altering air monitor data.
 - a. If confirmed, will you commit to ensuring TVA is a good actor and is transparent to the employees and families that may be impacted by this issue? Response: Yes
 - b. If confirmed, will you commit to ensuring TVA employees and those contracted by TVA work in a safe environment at all times? Response: Yes
 - c. If confirmed, what steps will you take to ensure TVA does not have another environmental disaster like the Kingston Fossil Fuel Power Plant coal ash spill? Response: I will work to understand how TVA evaluates operational risks and subsequently responds to those assessments.

Subcommittee Ranking Member Whitehouse:

The vast majority of scientists agree that climate change is real, and caused by humans.

- 10. Do you agree that climate change is real? Response: Yes
- 11. Do you agree that humans are the dominant driver of climate change over the past several hundred years?

Response: The latest scientific consensus that I am aware of is reflected in the <u>Climate</u> <u>Science Special Report</u> (CSSR), released in late October 2017 and involving the work of 13 federal agencies. The report cites evidence for demonstrating that it is "extremely likely" that human influence has been the dominant cause of global surface warming since the mid-20th century. I have no scientific basis to challenge that assessment.

12. Do you agree that the burning of fossil fuels by humans is the dominant driver of climate change over the past several hundred years?

Response: According to the U.S. Energy Information Administration, about 4.08 trillion kilowatt-hours (kWh) of electricity were generated at utility-scale facilities in the United States in 2016. About 65% of this electricity generation was from fossil fuels (coal, natural gas, petroleum, and other gases), about 20% was from nuclear energy, and about

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15% was from renewable energy sources. The CSSR report (referenced above) states with very high confidence that during the industrial era (1901-2016), "human activities have been, and are increasingly, the dominant cause of climate warming." I have no scientific basis to challenge that assessment.

13. Do you accept the scientific consensus that the average global temperatures should not reach or exceed +2 degrees Celsius. If temperatures do reach these levels, do you agree that many regions of the world will very likely experience catastrophic changes in the environment that may very likely impact the safety and prosperity of many people?

Response: I cannot offer an independent scientific opinion on environmental impact at a global scale if average temperatures should reach or exceed +2 degrees Celsius. However, I do recognize that catastrophic climate change will cause significant impact to the safety and welfare of many people.

14. The Department of Energy has asked FERC to issue a rule that would have consumers subsidize coal plants in the name of ensuring reliability. Do you think the federal government should subsidize or otherwise give priority to certain sources of energy under the Federal Power Act?

Response: There are numerous regulatory, pricing, and tax policies that impact decisions made by businesses and consumers that in effect, establish energy policy. Within a coordinated national energy policy framework, I believe the federal government should ensure long term U.S. interests are met by utilizing various tools which may impact the attractiveness of specific energy uses.

15. This year the Department of Energy finalized a report on grid reliability that found that cheap natural gas is the primary reason for coal plant closures. Do you agree that cheaper natural gas prices have led coal plant closures in the U.S.?

Response: I'm not in a position to understand all of the factors that have gone into these decisions by the various utilities in the U.S., but based on what has been reported by DOE and other entities such as the Nuclear Energy Institute, it seems reasonable that the price of natural gas has been a significant factor in decisions impacting changes in the generating mix. This would apply to decisions impacting not just coal but also nuclear.

16. Will it be your priority to approach regulatory decisions with a goal of putting the consumer first when it comes to providing clean, reliable, and affordable energy? If not, what other priorities do you believe are more important?

Response: As articulated in the founding Act for TVA, low cost power to benefit the residents of the Tennessee Valley is important. However, those decisions need to be balanced against other factors specified by the Act such as technology innovation and environmental stewardship.

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- 17. In 2015, TVA completed a long-term planning process to identify future energy needs. In its plan, TVA stated that it would add between 150 and 800 MW of large-scale solar by 2023, and between 3,150 and 3,800 MW of large-scale solar by 2033.
 - a. Do you agree with these goals? If not, why not?

Response: These goals seem appropriate, but I lack sufficient understanding of how these goals fit within TVAs overall longer term generating mix plan.

b. If confirmed as a TVA board member, what will you do to ensure these goals are met?

Response: Based on my knowledge today, these goals seem notionally attainable. However, I would like to understand TVA's assessment of the teconomics around these goals and how this added generating capacity fits within their overall generation mix plan.

- 18. Since 2013, reactors have been shut down in Vermont, Nebraska, California, Wisconsin, and Florida and six more plants have announced they will close between 2017 and 2025. In 2016, TVAs Watts Bar became the first U.S. nuclear plant to finish construction in the 21st century.
 - a. Do you think that nuclear energy can play a role in helping the U.S. meet its climate commitments?

Response: I believe nuclear electricity generation is an important element of the U.S. electric power system and should be a component for the foreseeable future.

b. Is there a role for additional nuclear energy capacity beyond Watts Bar in the TVA region? If so what are those plans and what types of reactors could TVA explore?

Response: Without understanding TVA's longer term power generation plans it is difficult to answer specifically, but I believe nuclear power should be considered. I also believe the U.S. struggles with building new nuclear generating assets and I would be supportive of TVA playing a role in demonstrating new approaches and/or new reactor designs/sizes in an attempt to bring the cost of nuclear down.

19. There have been several steps taken by states, businesses, and public utilities to put a value on the costs of carbon emissions. The New York Public Service Commission and Illinois state legislature are working to incorporate a carbon prices into their states' energy markets. Two PUCs in Minnesota and Colorado also ordered utilities to incorporate social costs of carbon into their decision planning.

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a. Does carbon pollution impose an economic cost to the American public?

Response: Yes; I believe the exploitation of any energy source at scale has an economic cost.

b. How would placing a value on this cost help to encourage the development of carbon-free technologies?

Response: Adding a "value" price would be a factor in the development of carbon-free technologies, or any technology where a value price is introduced.

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Senator CAPITO. Thank you. Mr. Thompson.

STATEMENT OF JAMES R. THOMPSON III, NOMINATED TO BE A MEMBER OF THE BOARD OF DIRECTORS OF THE TEN-NESSEE VALLEY AUTHORITY

Mr. THOMPSON. Good morning, Chairman Capito, Ranking Member Whitehouse, and distinguished members of the Committee.

I am honored to have been nominated to serve on the Tennessee Valley Authority Board of Directors. I also very much appreciate the support of Senator Shelby and Senator Strange of my home State of Alabama.

I am also glad to have my wife, Margie, here with me this morning.

My relationship to the Tennessee River is probably fairly unique among potential board members. As a young person growing up in north Alabama, I spent countless hours on the Tennessee River waterskiing with friends.

As a father, some of my most cherished memories are of time spent on the river with my family, particularly time spent fishing with my two sons as they grew up. Today, as a grandfather, I'm now blessed to be able to introduce my grandchildren to the unique beauty of the Tennessee River and the recreational opportunities that it affords.

For this, TVA's focus on environmental stewardship and flood control deserves much of the credit.

My parents moved our family to the Tennessee Valley in 1963, when I was 4 years old. My father was fresh out of the Navy and had taken a job with NASA at Marshall Space Flight Center in Huntsville.

As a result, I have lived and worked almost my entire life within a couple of miles of the Tennessee River. It defines our region of the country, and TVA's influence on the economy and quality of life in its service area cannot be overstated.

For the past 6 years, I have had the privilege of serving on the Board of Directors of Decatur Utilities, which is TVA's second largest distributor partner in Alabama, which is TVA's second largest State. Decatur Utilities serves the power needs of roughly 30,000 customers.

In this role as a board member, I have developed a new appreciation for TVA and its unique relationship with its distributors. I have also developed a new appreciation for the importance of reliable, competitively priced power to the residents and businesses of our region.

As our electricity provider, TVA has been an exemplary partner in the economic development efforts of our region of Alabama. The business that I currently run is a nice example.

Our company provides credit and financial services for small trucking companies, body shops, truck and auto dealers throughout the country. Any disruption in our electricity has the potential to cut off funding for our customers and significantly disrupt their operations.

Thanks in part to having TVA as our generator of power, our company has a predictable and reliable source of electricity and an

attractive region of the country to which we can attract employees. As a result, today we have grown to employ 68 people versus 38 when we purchased the company in 2009. TVA is a friend to small business just as much as it is to large industrial customers.

My primary role on the Decatur Utilities Board has revolved around my financial training and background. I envision using this skill set on the TVA Board, if confirmed. I have extensive experience with and appreciation for budgets, proper debt structure, and financial discipline and soundness. Given its unique ownership and structure, I believe these considerations are paramount in the proper management of TVA as it carries out its mission.

One final point I would like to make is my firm belief in the importance of competent board members playing their role in setting the mission of an organization, then empowering competent management to execute on that mission. In my career, I have been on both sides of that relationship, board member and management.

I have seen very talented boards that work well together and have an excellent working relationship with management. I have also seen boards that either do not have members with the appropriate skill set or do not know the proper role of a board member.

priate skill set or do not know the proper role of a board member. Proper board interaction among the members and with management is essential for any organization to be successful. If confirmed, I intend to bring this same mindset to the TVA Board.

Thank you for your time and consideration.

[The prepared statement of Mr. Thompson follows:]



Mr. James R. "Skip" Thompson, III President and CEO Corporate Billing LLC

Skip Thompson is currently president and CEO of Corporate Billing LLC in Decatur, a subsidiary of National Bank of Commerce, Birmingham. The Decatur company provides \$1 billion per year in operating capital to businesses nationwide. Thompson was president and CEO of First American Bank in Decatur from 1995-2008, and prior to that, he was president and CEO of First Commercial Bank in Huntsville, Alabama.

A graduate of the University of Alabama, Huntsville with a Bachelor of Science degree in finance, Skip is a Decatur native. He is very active in the Decatur community, serving as board chairman of Nation of Coaches, a faith-based character development organization that serves basketball coaches and athletes at 150 colleges and universities. He is board chairman of Refuge of Grace, a jail ministry and residential program serving women and children. Thompson is also a Board member of Decatur Utilities, a \$328 million asset public utility in the TVA service area serving 30,000 customers. He and his wife of 35 years, Margie, have three children and four grandchildren.

Statement of J.R. "Skip" Thompson, III Nominee to the Tennessee Valley Authority Board of Directors U.S. Senate Committee on Environment & Public Works November 28, 2017

Good afternoon, Chairman Capito, Ranking Member Whitehouse, and distinguished members of the Committee. I am honored to have been nominated to serve on the Tennessee Valley Authority Board of Directors. I also very much appreciate the support of Senator Shelby and Senator Strange of my home state of Alabama.

My relationship to the Tennessee River is probably fairly unique among potential board members. As a young person growing up in north Alabama, I spent countless hours on the Tennessee River, waterskiing with friends. As a father, some of my most cherished memories are of time spent on the river with my family, particularly time spent fishing with my two sons as they grew up. Today, as a grandfather, I'm now blessed to be able to introduce my grandchildren to the unique beauty of the Tennessee River and the recreational opportunities that it affords. For this, TVA's focus on environmental stewardship and flood control deserves much of the credit.

My parents moved our family to the Tennessee Valley in 1963, when I was four(4) years old; my father was fresh out of the Navy and had taken a job with NASA at Marshall Space Flight Center in Huntsville. As a result, I've lived and worked almost my entire life within a couple of miles of the Tennessee River. It defines our region of the country, and TVA's influence on the economy and quality of life in its service area cannot be overstated.

For the past six(6) years, I've had the privilege of serving on the Board of Directors of Decatur Utilities, which is TVA's second largest distributor partner in Alabama, which is TVA's second largest state. Decatur Utilities serves the power needs of roughly 30,000 customers. In this role as a board member, I have developed a new appreciation for TVA and its unique relationship with its distributors. I've also developed a new appreciation for the importance of reliable, competitively priced power to the residents and businesses of our region. As our electricity provider, TVA has been an exemplary partner in the economic development efforts of our region of Alabama.

The business that I currently run is a nice example. Our company provides credit and financial services for small trucking companies, body shops, and truck and auto dealers. Our customers are spread out across the country. Any disruption in our electricity has the potential to cut off funding for our customers and significantly disrupt their operations.

Thanks in part to having TVA as our generator of power, our company has a predictable and reliable source of electricity and an attractive region of the country to which we can attract employees. As a result, today we have grown to employ 68 people vs 38 when we

purchased the company in 2009. TVA is a friend to small business just as much as it is to large industrial customers.

My primary role on the Decatur Utilities board has revolved around my financial training and background. I envision using this skill set on the TVA board, if confirmed. I have extensive experience with and appreciation for budgets, proper debt structure, and financial discipline and soundness. Given its unique ownership and structure, I believe these considerations are paramount in the proper management of TVA as it carries out its mission.

One final point I'd like to make is my firm belief in the importance of competent board members playing their role in setting the mission of an organization, then empowering competent management to execute on that mission. In my career, I have been on both sides of that relationship – board member and management. I've seen very talented boards that work well together and have an excellent working relationship with management, and I've also seen boards that either do not have members with the appropriate skill set or do not know the proper role of a board member. Proper board interaction among the members and with the management team is essential for any organization to be successful. If confirmed, I intend to bring this same mindset to the TVA board.

Thank you for your time and consideration, and I will be happy to answer any questions.

Senate Committee on Environment and Public Works Clean Air and Nuclear Safety Subcommittee Hearing entitled, "Nominations of Kenneth E. Allen, A.D. Frazier, Jeffrey Smith, and James R. Thompson III to be Members of the Board of Directors of the Tennessee Valley Authority" November 28, 2017 Questions for the Record for Mr. James R. Thompson III

Full Committee Ranking Member Carper:

Please provide a response to each question, including each sub-part.

1. I strongly believe TVA should be an industry leader, not a laggard, especially when it comes to clean energy and energy efficiency. I've been pleased with TVA's commitments to retiring old, dirty coal power plants and investing in clean energy. TVA's CEO, Bill Johnson, has reported that TVA is expected to easily meet the Clean Power Plan deadlines, even without the EPA rule. The Tennessee Valley is benefiting from these clean ups with cleaner air and with economic growth. For example, Google has announced a \$600 million investment to build a database center at one of TVA's retired coal plants in northern Alabama. Google wants to run the database on renewable energy and knows TVA can provide the clean power. This one project is expected to create at least 100 jobs. My question, if confirmed, do you commit to continuing the clean energy investments and commit to ensuring that TVA is a leader in the clean energy economy?

I commit to the mission of TVA to provide affordable and reliable power, an asset portfolio that is balanced, and energy that complies with EPA regulations.

- Do you agree to provide complete, accurate and timely responses to requests for information submitted to you by any Member of the Environment and Public Works Committee? If not, why not? Yes.
- 3. In December 2007, President Bush's EPA proposed to declare greenhouse gases as a danger to public welfare through a draft Endangerment Finding, stating, "The Administrator proposes to find that the air pollution of elevated levels of greenhouse gas (GHG) concentrations may reasonably be anticipated to endanger public welfare...Carbon dioxide is the most important GHG (greenhouse gas) directly emitted by human activities, and is the most significant driver of climate change." ¹ Do you agree with these statements, if not, why not?
 I'm unaware of studies declaring the most important GHG emitted by human activities, but will look into these issues if confirmed.

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⁴hups://insideclimatenews.org/sites/default/files/2007_Draft_Proposed_Endangerment_Finding.pdf

- 4. Do you agree that it is essential that in making decisions, TVA must be shielded from political influence and spared even the appearance of being subject to political influence or considerations? If not, why not? Yes.
- 5. The Department of Energy Secretary Perry has sent a proposal to the Federal Energy Regulatory Commission (FERC) the independent agency that regulates electricity markets asking the Commission to adopt a rule that would require consumers to pay more to support certain coal and nuclear plants. Some of these payments would go toward coal-fired power plants that are long overdue to be retired. Since TVA can set its own rates and may be restructuring its rate system soon, if confirmed, will you support a rate system that requires customers to pay more to keep coal-fired power plants running or will you support a rate system that continues to grow renewable energy in the Valley and encourages energy efficiency?
 I commit to the mission of TVA to provide affordable and reliable power, an asset

portfolio that is balanced, and energy that complies with EPA regulations.

- 6. Do you agree with President Trump's decision to withdraw the United States from the International Paris Climate Accord? If so, please explain. I have not read and do not know the details of the International Paris Climate Accord, so I cannot make an educated statement on the President's decision, but will look into the decision if confirmed.
- If confirmed, how will you boost employee morale and ensure TVA retains and recruits the best employees?
 Employee morale and quality employees are essential to the success of any organization; I will support and encourage senior management in these priorities.
- 8. If confirmed, what steps will you take to ensure TVA employees will not be working in an intimidating work-place environment and will feel comfortable reporting problems at any TVA facility?

I understand there are avenues today within TVA that encourage employees to report problems without fear of retribution. I will support and encourage senior management in keeping these lines of communication open.

- 9. There are reports that over 150 employees from the firm hired by TVA to manage the clean-up the coal ash spill at the TVA Kingston Fossil Fuel Power Plant have died or are gravely ill. There are also reports that supervisors may have put the employees cleaning up the coal ash in harm's way by destroying or altering air monitor data.
 - a. If confirmed, will you commit to ensuring TVA is a good actor and is transparent to the employees and families that may be impacted by this issue? Yes.
 - b. If confirmed, will you commit to ensuring TVA employees and those contracted by TVA work in a safe environment at all times? *Yes.*

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c. If confirmed, what steps will you take to ensure TVA does not have another environmental disaster like the Kingston Fossil Fuel Power Plant coal ash spill? *I will support and encourage senior management to comply with all environmental safety regulations, and work with/for TVA to be the safest energy utility in the country.*

Subcommittee Ranking Member Whitehouse:

The vast majority of scientists agree that climate change is real, and caused by humans.

- 10. Do you agree that climate change is real? *Yes*,
- 11. Do you agree that humans are the dominant driver of climate change over the past several hundred years?
 I ballout the climate is changing and humans should do the limit dominant driver of climate change.

I believe the climate is changing, and humans should do <u>all what</u> we can to protect the environment for the long-term benefit of the planet.

- 12. Do you agree that the burning of fossil fuels by humans is the dominant driver of climate change over the past several hundred years?I am unaware of the dominate driver of climate change over the past several hundred years, but will look into this issue if confirmed.
- 13. Do you accept the scientific consensus that the average global temperatures should not reach or exceed +2 degrees Celsius. If temperatures do reach these levels, do you agree that many regions of the world will very likely experience catastrophic changes in the environment that may very likely impact the safety and prosperity of many people? I am unaware of this benchmark to trigger catastrophic changes, but will look into this issue if confirmed.

The Department of Energy has asked FERC to issue a rule that would have consumers subsidize coal plants in the name of ensuring reliability.

- 14. Do you think the federal government should subsidize or otherwise give priority to certain sources of energy under the Federal Power Act?
 I am unaware of the details of this request by the Department of Energy, but will look into this issue if confirmed.
- 15. This year the Department of Energy finalized a report on grid reliability that found that cheap natural gas is the primary reason for coal plant closures. Do you agree that cheaper natural gas prices have led coal plant closures in the U.S.? *Yes.*
- 16. Will it be your priority to approach regulatory decisions with a goal of putting the consumer first when it comes to providing clean, reliable, and affordable energy? If not,

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what other priorities do you believe are more important? Yes. I would add a balanced asset portfolio to the priority.

- 17. In 2015, TVA completed a long-term planning process to identify future energy needs. In its plan, TVA stated that it would add between 150 and 800 MW of large-scale solar by 2023, and between 3,150 and 3,800 MW of large-scale solar by 2033.
 - a. Do you agree with these goals? If not, why not? Yes.
 - b. If confirmed as a TVA board member, what will you do to ensure these goals are met?

As long as these goals are not modified by pressures such as market prices or technology disruptions/advances, I will support senior management with the resources to implement.

- 18. Since 2013, reactors have been shut down in Vermont, Nebraska, California, Wisconsin, and Florida and six more plants have announced they will close between 2017 and 2025. In 2016, TVAs Watts Bar became the first U.S. nuclear plant to finish construction in the 21st century.
 - a. Do you think that nuclear energy can play a role in helping the U.S. meet its climate commitments?
 - Yes.
 - b. Is there a role for additional nuclear energy capacity beyond Watts Bar in the TVA region? If so what are those plans and what types of reactors could TVA explore?

I am not fully versed on this issue, but will look into the issue if confirmed.

- 19. There have been several steps taken by states, businesses, and public utilities to put a value on the costs of carbon emissions. The New York Public Service Commission and Illinois state legislature are working to incorporate a carbon prices into their states' energy markets. Two PUCs in Minnesota and Colorado also ordered utilities to incorporate social costs of carbon into their decision planning.
 - *a.* Does carbon pollution impose an economic cost to the American public? *Yes.*
 - b. How would placing a value on this cost help to encourage the development of carbon-free technologies?
 - I am not fully versed on this issue, but will look into the issue if confirmed.

Senator CAPITO. Thank you all very much. I appreciate your opening statements.

I will recognize myself for 5 minutes of questioning.

I want to start with you, Mr. Smith, on the nuclear issue. You mentioned in your statement that you have quite a bit of experience in the field of nuclear energy. The TVA Watts Bar Unit 2 is the first new nuclear plant to start up in over 30 years. As you know, across the country a lot of these are closing. As a matter of fact, in South Carolina, they just ceased construction of a new nuclear facility.

How do you envision TVA's nuclear power generation in the future looking out say 10 or 20 years?

Mr. SMITH. Thank you, Madam Chairman.

I think nuclear is an important part of the generation mix that TVA needs to continue to supply to the region. TVA should be commended, in my opinion, for successfully starting up Watts Bar Unit 2. As you indicated, that has not happened very often in the U.S. recently.

We tend to be struggling right now as a country in terms of delivering new nuclear generation plants. I am not sure I understand all the reasons behind that, but I can see TVA being an important provider of power generated for nuclear assets for a long time into the future.

Senator CAPITO. I would comment that, on a bipartisan basis, the full Committee has moved forward on some reforms in the nuclear power area to make the next generation of nuclear facilities more agile from the regulatory perspective and also from the environmental and safety perspectives as well. I think that is something TVA could probably look forward to as part of their portfolio.

Mr. Allen, obviously I know a lot about coal being from the State of West Virginia, and obviously you do, too. TVA has retired many coal plants. I think by the beginning of 2018, 59 coal-fired plants will have been retired.

I have the same kind of question I asked Mr. Smith. How do you envision the baseload capacity that coal brings as being part of TVA's energy mix, to bring that affordable energy to all the millions of customers?

Mr. ALLEN. Madam Chairman, I appreciate the question.

Yes, I have been involved in the coal industry for five decades, and I am very proud of that fact, but I also recognize the changes in our environment, and I recognize the changes in our culture across the country. TVA has done a great job with diversity in their supply.

As you know, coal has declined as part of the generation mix. I think moving forward we have to be very cognizant of our environment, of our surroundings, and how we address all those issues.

I believe in good old American ingenuity to solve problems. I think we are problem solvers. We have proven that by the great electrical system that we have had in this country for most of my life. I think we will continue to do that by using economic and technological data to make sound, responsible decisions.

Senator CAPITO. Thank you.

I would also mention that the Ranking Member and I are on a bill together to spur more investment in carbon capture, sequestration, and utilization. We come from very different backgrounds, and I would say slightly different belief systems in some instances, but we are able to bridge the gap here. Again, I think that could hold some promise for future coal utilization in TVA.

The last question is for Mr. Frazier. You obviously have a great background in finance and have worked in this area your entire life. In my opening statement, I mentioned the challenge of pensions. I would say the TVA pension issue is not unique to just TVA. We have this problem in a lot of other areas.

That is a formidable challenge, I think. How are you seeing that? I am not asking you to give a definitive plan forward, but just what type of comments you might make about that.

Mr. FRAZIER. Thank you, Madam Chairman.

The difference in assets and liabilities is now \$8 billion in assets and about \$12.6 billion in liabilities. That is a formidable amount to pay. There are a couple of ways TVA is doing this. One is a return on assets in their pension fund, obviously. I have looked at the asset allocations there.

The second one is contribute contributions out of earnings. In 2017, as you know, they supplemented their \$300 million per year contribution effort with another \$500 million and expect to do the same thing again this year.

Those were about the only two options we have to fix this problem. The good news is this company is generating enough cash flow to make those additions to support assets. I am optimistic about the TVA's ability to fund this thing. It will take years, maybe a decade, but on the present course and speed, they will do it. Senator CAPITO. Thank you.

Senator Whitehouse.

Senator WHITEHOUSE. Thank you, Chairman.

If I am not misstating Mr. Allen's response, I think he recognized there are environmental and other costs associated with carbon emissions from coal power plants. I believe, based on the background of the other witnesses, they also already understand that.

My concern has to do with the economics of that problem. I see it playing out in a couple of areas. One is with respect to carbon capture, utilization, and sequestration. We have done some good bipartisan work and have the proposed bipartisan bill with wide support both from the energy industry and the environmental community to try to figure out a way, in the absence of a proper price on carbon, to put a payment of some kind or a benefit of some kind to successful carbon capture, utilization, and sequestration.

I think when the President talks about clean coal, that is probably what he has in mind since there is no other rational or logical definition of the term.

The problem that I see is that if you have no revenues available for having successfully captured, utilized, or sequestered carbon, it is hard to create a business model that supports carbon capture,

utilization, or sequestration. The same problem occurs with respect to the nuclear fleet where you have nuclear power plants that are operating safely, that are providing carbon free energy to the grid, but that get no compensation whatsoever for the carbon free nature of their energy which then are obliged to compete with very often natural gas plants.

We have over and over again seen safely operating nuclear plants have to close because they cannot make an economic test that is unfair in the sense that it gives them no credit for the carbon free nature of their power.

Until we solve those pricing problems, we are going to continue to hurt nuclear and continue to see carbon capture, utilization, and sequestration die in the crib for want of any economic sustenance.

Let me start with Mr. Smith because I know the extraordinary work that your organization has done on mapping, predicting, and quantifying carbon emissions, climate change, and weather responses to all of that.

Instead of focusing on the sort of scientific, geological, atmospheric, oceanic merits of climate change, focus on this economic problem of how you keep nuclear plants on a level playing field with natural gas and that competition, and how you allow for capture, utilization, and sequestration, or other methods of dealing with carbon when there is no price reward for doing those things.

Mr. SMITH. Thank you for that question, I think.

The challenge, as you have laid it out from a value pricing perspective, I am not an economics expert but I agree with you completely that the economics today, at some level, do not support what you would think would be a rational approach to some of these problems.

We all enjoy the benefits of nuclear, but it is not value priced, some would say, appropriately. We all think coal is a reliable resource, but we cannot figure out how to do the carbon capture piece.

In that piece, I think there are also some technological advancements that can be made in terms of how we would capture carbon and deal with that in a more economical way.

Senator WHITEHOUSE. To Mr. Allen's point earlier about how good old American ingenuity has been a successful way of solving problems, usually that good old American ingenuity is provoked by a value proposition at the end of the day.

If there is no way to pay somebody for having captured, utilized or sequestered carbon pollution, it is pretty hard to channel that good old American ingenuity into solving that problem, except maybe at a few national labs.

Mr. SMITH. Maybe, for example, there could be a pilot demonstration project or something like that. As you know, TVA's charter encourages TVA—in fact mandates—that they be a technological innovator as part of their culture.

You could see TVA trying some different things to see if we cannot move this whole front forward. You could say the same thing in the nuclear space with different reactor technology, small, modular reactors and things like that.

Again, I think TVA has the opportunity to participate in that by charter. It may not be something they deploy widely here in this region after it gets proven. Those are decisions that would be made as part of the long range energy planning.

I do think TVA can be, if you will, a sandbox for understanding how some of these issues can be played out on a larger scale.

Senator WHITEHOUSE. I very much hoped you would say that and use the TVA that way, and I think your ability to model for the rest of the country. I want you and all of the nominees to know that on these issues of supporting the nuclear fleet and not having these plants have to prematurely shut down, and in terms of investing in carbon utilization, sequestration, and capture, there has been really good bipartisan work done here.

We may have fights about other issues, but those two things have been a place where if you come to us with a sensible proposal, I think you can find bipartisan support. I just wanted to close with that point.

Thank you, Chairman.

Senator CAPITO. Senator Inhofe.

Senator INHOFE. Thank you, Madam Chair.

Mr. Frazier, in your opening statement, you were very specific in answering a question I was going to ask all four of you. You do not need to answer this one.

The question would have been what do you see as the fundamental duty of the Tennessee Valley Authority to the individuals, talking about the 9 million individuals and businesses who live in that area of service? You were very specific in your answer.

What would you say, Mr. Allen?

Mr. ALLEN. Thank you, sir. I think I understand your question. Senator INHOFE. What benefits are you going to see or do you believe TVA is going to have to the 9 million people in that service area?

Mr. ALLEN. I think we have to continue to work hard to provide economical and affordable energy for those 9 million people. As I stated in my opening statement, I believe energy is the very foundation of our standard of living. I think it is of utmost importance that we continue to work diligently to provide economical and affordable energy to everyone. There are 3.5 billion people in this world who do not enjoy electricity. We are fortunate.

Senator INHOFE. Do you agree with that generally?

Mr. THOMPSON. Yes, sir. I would say jobs is a primary importance in TVA's mission, affordable electricity that is reliable, and also managing the environment along the rivers, basins, and all that is very important.

Senator INHOFE. I appreciated that in your opening statement, you were the only one who really spent a lot of time talking about the recreational activity that is generated from the TVA. I think all of you agree that should be in the mix in terms of the benefits that are out there.

Let me pause in my statement here at this point so that Senator Alexander can make his introduction.

OPENING STATEMENT OF HON. LAMAR ALEXANDER, U.S. SENATOR FROM THE STATE OF TENNESSEE

Senator ALEXANDER. That is characteristically courteous of you, Senator Inhofe.

I thank you very much, Madam Chairman, Senator Whitehouse, and Senator Inhofe, thank you for letting me do this.

I am chairing a hearing down the hall, but I wanted to come by and congratulate all of the nominees, and especially to say a word about Jeff Smith. I will put my statement in the record.

The three areas I wanted to mention about Jeff are first, one reason Senator Corker and I recommended him was because of his background in nuclear energy. He is the Deputy Director of the Oak Ridge National Laboratory. He has been that for some time.

Going back to the Manhattan Project, they have a lot of expertise in nuclear energy and the Tennessee Valley Authority built the last new reactor of the last century and the first one of this century, and is headed toward 40 percent of our power in our large, seven State region, to be coming from nuclear power, which, of course, is clean from sulfur, nitrogen, mercury, and carbon. Having someone with that background is very important.

Second, he knows how to manage a large organization. He is deputy director of an organization with a \$1.5 billion budget and 5,000 employees. He has done that well for a long time.

Third, he knows how to bring a large construction project in on time and on budget which has been a problem with some Govern-ment projects, but not at Oak Ridge National Laboratory. Their Spallation Neutron Source was on time and on budget, actually a little under budget, a \$1.4 billion project, while he was deputy director.

For all these reasons, his expertise in nuclear energy, his background in management of a large facility, and his understanding of large construction projects, he will make an excellent board member for the nation's largest public utility.

I am grateful to the Senators for giving me an opportunity to come by and express my strong support for him.

Thank you very much.

[The prepared statement of Senator Alexander follows:]

STATEMENT OF HON. LAMAR ALEXANDER,

U.S. SENATOR FROM THE STATE OF TENNESSEE

Thank you, Chairman Capito and Ranking Member Whitehouse. I am here today to introduce Jeff Smith, one of the nominees to serve on the Ten-

nessee Valley Authority (TVA) Board of Directors. I also would like to congratulate Kenny Allen, Skip Thompson, and A.D. Frazier

on their nominations to serve on the TVA Board.

Jeff Smith's experience as Deputy Laboratory Director for Operations at Oak Ridge National Laboratory makes him an outstanding choice to help keep TVA on a good path.

The first way Jeff Smith can be an asset to TVA is his knowledge and experience with nuclear power and clean energy.

Oak Ridge National Laboratory is known around the world for its expertise in nuclear energy, beginning with the Manhattan Project and continuing today with its research in using nuclear technologies and systems to improve human health; explore safer, more environmentally friendly power; and support scientific discoveries that address national challenges

TVA has been the utility that has led all other utilities in opening new nuclear reactors. TVA opened both the last nuclear power reactor in the 20th century and the first nuclear power reactor in the 21st century. Today nearly 40 percent of TVA's generation comes from pollution-free, carbon-

free nuclear power. Having a TVA director with a broad background in nuclear energy is especially important.

Oak Ridge National Laboratory is also one of the nation's leaders in research for new forms of clean energy.

And TVA is on its way to becoming one of the cleanest electricity generators in the country. In addition to nuclear power, it is placing pollution control equipment on all its coal plants, completing new natural gas plants, and nearly 10 percent of its electricity comes from hydropower.

These are sound decisions that will benefit ratepayers and our region for years to come, and will help TVA continue to fulfill its mission to provide "safe, clean, reliable, and affordable power for the region's homes and businesses."

TVA has done this while reducing its debt and reducing electric rates, which is good news for jobs and economic development in the region.

The second way Jeff Smith can be an asset to TVA is good management.

As the chief operating officer of Oak Ridge National Laboratory, Jeff has extensive experience leading large organizations. Oak Ridge National Laboratory employs nearly 5,000 people and has a budget of \$1.4 billion.

He brings this experience to the nation's largest public utility which has an annual budget of over \$10 billion and employs more than 10,000 people.

His management background and expertise will be very helpful.

Finally, Jeff Smith understands how to do large construction projects on time and on budget.

Jeff has been very involved in the lab's \$400 million modernization effort, which has resulted in more new construction at the lab than at any time since the Manhattan Project.

And during his tenure as Deputy Laboratory Director, Oak Ridge National Laboratory completed the \$1.4 billion Spallation Neutron Source project on time and on budget.

As a resident of the Tennessee Valley and East Tennessee, Jeff is very familiar with the needs of the region's residents and businesses. He understands that TVA must continue to provide low cost, clean, and reliable power for homes and businesses throughout the TVA region.

Jeff will make an excellent TVA Board member. I strongly support his nomination, and I encourage the members of the Committee to support his nomination so he can quickly be considered by the full Senate.

Senator CAPITO. Thank you, Senator Alexander. I appreciate it. Senator Inhofe, would you like to resume your questioning?

Senator INHOFE. Yes, I would. I am halfway through my questions, but I wanted to pause to be sure Senator Alexander had a chance to make his introduction.

Mr. Allen, as someone who has worked his entire career in one industry, specifically the coal industry, I think you might appreciate a dilemma I found myself in during the last Administration, the Obama administration.

During that Administration, when I would travel around Oklahoma, constituents would be amazed at the fact that we had a President who was opposed to fossil fuels, coal, oil, and gas, and I might add, nuclear.

If you stop and think about the fact that 80 percent of the energy that runs this country falls into those categories, coal, oil, gas, and nuclear. If you extract that, how do you run this machine called America? That is the question I would have.

I think an answer is yes, we do have an all of the above but you have to put the economics in there also. When they talk about the efforts with wind, Oklahoma is one of the five States that generates the most, I suppose you could argue, energy from wind. The Congressional Research Service study shows the wind production tax is the largest energy related tax expense. Between the years of 2016 and 2020 it is projected that it would cost the Treasury some \$25.7 billion. That is a consideration.

I would like a response from you as to what are the risks associated with solely relying on renewable energy because there are some who believe that renewable energy is adequate to take care of all our needs.

Let us start with whoever wants to be first.

Yes, Mr. Allen.

Mr. ALLEN. I totally agree with your statement. It is a tremendous problem that we have. There is a divide in this country on how it should be addressed. I think that is one of the major issues the TVA board needs to confront.

As I stated earlier, TVA has done a good job in diversifying their generation portfolio. They are very fortunate to have a lot of hydro generation which is proven and well established. Some of the others, as you mentioned, wind and solar, we are still learning. I think we have to apply that good old American ingenuity, as I mentioned earlier, to all the above. I think we have to continue to investigate how we clean up fossil fuel.

Senator INHOFE. As a final question to all of you, is there anyone on this panel who believes you can do away entirely with fossil fuels and nuclear and still run the machine called America?

What do you think, Mr. Frazier?

Mr. FRAZIER. No. I don't believe that.

Senator INHOFE. Thank you, Madam Chair.

Senator CAPITO. Thank you all very much.

If there are no more questions for today, I do have to ask you all the following questions that we ask of all nominees on behalf of the Committee. I am going to ask each of you to give me a verbal OK on this. I sound like the flight attendant on the exit row.

No. 1, do you agree, if confirmed, to appear before this Committee or designated members of the Committee and other appropriate committees of the Congress, and provide information subject to appropriate and necessary security protection with respect to your responsibilities?

Mr. ALLEN. Yes.

Mr. FRAZIER. Yes.

Mr. SMITH. Yes.

Mr. THOMPSON. Yes.

Senator CAPITO. Do you agree to ensure that testimony, briefings, documents, and electronic and other forms of information are provided to this Committee, its staff, and other appropriate committees in a timely manner?

Mr. Allen. Yes.

Mr. FRAZIER. Yes.

Mr. Smith. Yes.

Mr. THOMPSON. Yes.

Senator CAPITO. Do you know of any matters, which you may or may not have disclosed, that might place you in any conflict of interest if you are confirmed?

Mr. Allen. No.

Mr. FRAZIER. No.

Mr. SMITH. No.

Mr. THOMPSON. No.

Senator CAPITO. I think that ends that exercise.

If there are no more questions, you may expect members to submit follow up, written questions for the record, called QFRs, by the close of business on Thursday, November 30. The nominees shall respond to those questions by close of business Wednesday, December 6.

I would like to thank the nominees for their time and testimony. I would like to state for the record that I intend to support all of you when your nominations come before the Committee and on to the floor of the U.S. Senate.

Thank you for your willingness to serve, and thank you for coming today.

The meeting is adjourned.

[Whereupon, at 11:03 a.m., the Subcommittee was adjourned.] [An additional statement submitted for the record follows:]

STATEMENT OF HON. RAND PAUL,

U.S. SENATOR FROM THE STATE OF KENTUCKY

I congratulate Mr. Kenny Allen from Hopkins County, Kentucky, on being nominated to serve on the Tennessee Valley Authority Board of Directors. I regret that my injuries kept me from being able to attend his hearing in person. I am confident that Mr. Allen, if confirmed, will serve Kentucky and the nation well, and I applaud President Trump for nominating him.

Mr. Allen spent his 50-year career in coal mining, beginning as a mine electrician in Ohio County, Kentucky, and advancing over the years into senior management. His first 40 years were spent with Peabody Energy, and the last 10 at Armstrong Energy, Throughout his career, he was also involved in his community in Western Kentucky, including by serving on the Kentucky Reclamation Guaranty Fund, the Upper Pond River Conservancy District, and the Governor's Council of Economic Advisors.

Advisors. TVA is responsible for serving its region with reliable and affordable electricity. In Kentucky alone, TVA is responsible for providing electricity to over 200,000 households in nearly 30 Kentucky counties. I am confident that Mr. Allen will work to serve Kentucky and the nation by finding innovative ways to make energy more affordable and reliable, including through coal-fired power generation. Thank you for giving your consideration to his nomination.