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U.S. Senate Date: Wednesday, October 27, 2021

Committee on Environment
and Public Works

Washington, D.C.

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HEARING ON THE NOMINATIONS OF CHRISTOPHER FREY TO BE ASSISTANT
ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT, ENVIRONMENTAL
PROTECTION AGENCY AND JENNIFER CLYBURN REED, TO BE FEDERAL
CO-CHAIR OF THE SOUTHEAST CRESCENT REGIONAL COMMISSION

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United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee, met, pursuant to notice, at 10:06 a.m. in
room 406, Dirksen Senate Office Building, the Honorable Thomas
R. Carper [chairman of the committee] presiding.

Present: Senators Carper, Capito, Kelly, Inhofe, Ernst, and
Graham.

STATEMENT OF THE HONORABLE THOMAS R. CARPER, A UNITED STATES
SENATOR FROM THE STATE OF DELAWARE

Senator Carper. Good morning, everyone. I call this hearing to order.

Today, we are privileged to hear from two nominees: Jennifer Clyburn Reed, whom President Biden has nominated to be the Federal Co-Chair of the Southeast Crescent Regional Commission, and Christopher Frey, whom the President has nominated to serve as the Assistant Administrator of the Office of Research and Development at the Environmental Protection Agency. We warmly welcome both of you today.

Before we hear from our witnesses, Senator Capito and I would like to say a few words about each of them.

Dr. Jennifer Clyburn Reed has built an exemplary career as an educator and advocate for strengthening the economic, social, and physical health of communities in her home State of South Carolina. She is also a graduate of the University of South Carolina. I just wrote this in, and I hope this is correct, a proud Gamecock, a graduate of the University of South Carolina.

Dr. Reed has spent nearly 30 years as an educator and an education leader. Most recently, she was the Director of the Center for Education and Equity at the University of South Carolina, her alma mater, and Co-Director of the Apple Core Initiative, a scholarship program at the USC College of

Education.

She is also CEO of the Palmetto Issues Conference, an issues-based advisory group that promotes accessible and equitable policies in education, health, housing, and infrastructure.

I had the privilege of meeting with Dr. Reed virtually yesterday and found her to be an engaging leader who is deeply committed to helping communities across the Southeast Crescent region.

If confirmed, Dr. Reed will be the Southeast Crescent Regional Commission's first Federal Co-Chair since it was created in 2019. Just let me repeat that: if confirmed, Dr. Reed will be the Southeast Crescent Regional Commission's first Federal Co-Chair since it was created in 2019.

Having her in this role will allow this agency to fully commit its resources toward addressing economically distressed areas across parts of Virginia, the Carolinas, Georgia, Alabama, Mississippi, and Florida.

I am delighted that Dr. Reed could join us here today. We look forward to hearing her vision for this role.

She will introduce a couple of relatives and maybe some friends that are in the audience, but Senator Capito and I have had the privilege of serving with your dad and it is a special privilege to welcome him here today.

I would like to say we could see his lips move when you speak but with the mask on, we won't see his lips move at all but we know he is here to provide encouragement and support.

[Laughter.]

Senator Carper. President Biden nominated our second witness today, Henry Christopher Frey, who I believe goes by the name of Chris, to serve as EPA Assistant Administrator for the Office of Research and Development. Dr. Frey has built a remarkable, accomplished career as a pioneer in the fields of modeling human exposure to air pollution, as well as the measurement and modeling of vehicle emissions and applying those emissions estimates to risk assessments.

At a time when the EPA is recommitting itself to science-driven decision-making, Dr. Frey's experience makes him an excellent choice to lead research and development at the agency. Dr. Frey has been a professor for 27 years at North Carolina State University, where he has dedicated himself to research and cultivating the next generation of scientific leaders.

He also has extensive experience working with the Environmental Protection Agency. In 1992, Dr. Frey was a AAAS, I had never heard of a AAAS, I have heard a lot of AAAs, but a AAAS, Environmental Science and Engineering Fellow at EPA. He has served as exposure modeling advisor in the EPA's Office of Research and Development's National Exposure Research Laboratory

from 2006 to 2007.

He also served in several other capacities at EPA through the years, including as a member of the EPA Federal Insecticide, Fungicide and Rodenticide Act, affectionately known as FIFRA, Scientific Advisory Panel from 2004 to 2006; as a member of the EPA's Clean Air Scientific Advisory Committee from 2008 to 2012; as chair of that committee from 2012 to 2015; and as a member of the EPA Science Advisory Board from 2012 to 2018.

Let me also add that Dr. Frey has received public support from seven of his predecessors for this role, including both Republicans and Democrats, going back to the Reagan Administration. There may be no better endorsement for a job than from someone who has held it before, much less seven former leaders who served in this role from both sides of the aisle.

I also had the opportunity to speak with Dr. Frey earlier this week, and he is quite impressive in person, as well. Should he be confirmed, he will be an undeniable champion of science-based decision-making and scientific integrity at EPA's Office of Research and Development.

We are looking forward to hearing more from him today.

Before we do, we are going to hear from our Ranking Member, Senator Capito, for her opening statement. Senator Capito.

[The prepared statement of Senator Carper follows:]

STATEMENT OF THE HONORABLE SHELLEY MOORE CAPITO, A UNITED STATES
SENATOR FROM THE STATE OF WEST VIRGINIA

Senator Capito. Thank you, Mr. Chairman.

I want to thank our two witnesses today for being willing to serve. I think it is an admirable trait, public service, and we certainly appreciate those efforts. We look forward to hearing from both of you.

Thank you, Chairman Carper, for having the hearing.

As Chairman Carper mentioned, Dr. Jennifer Clyburn Reed will be the first to lead the Southeast Crescent Regional Commission, which is going to be an interesting exercise for me to watch since we have the Appalachian Regional Commission in our States and we have seen how that has developed over the years.

Then of course, the Environmental Protection Agency Office of Research and Development, Dr. Chris Frey.

Each of you has devoted the majority of your careers to education. For that, you deserve great recognition and I thank you.

Dr. Clyburn Reed, it is nice to see your father in the audience today. I had the pleasure of playing golf with him one time. He is quite the golfer.

I commend you for your service in education at all levels because you have obviously taught at every level in a lot of

different types of situations, and for what you have done for your State of South Carolina. I look forward to hearing about you and what your plans are for the commission.

Dr. Frey, I know you have served as a college professor for 27 years, including time at the University of Pittsburgh and North Carolina State University and you are now nominated for this position. As we discussed during our meeting last week, when we spoke, and I thank you for that, this is one of science, a scientist, not a policymaker or politician. The research conducted in this office is used to inform critical policy decisions made by the agency's regulatory offices.

Establishing public trust requires that the scientific studies are developed in an open and transparent fashion, you and I talked about this, not hidden from robust public scrutiny. I take the opportunity every time I get the chance to talk at this dais to talk about the frustrations I have with this Administration on transparency. Because it is not only critical in the scientific process, but also in policy proposals and the accountability that accompanies the decisions that this Administration is making.

I am very disturbed about this Administration's lack of transparency, particularly on climate and environmental issues. I have asked repeatedly the EPA and the White House several times now how the new U.S. Nationally Determined Contribution,

or NDC, under the Paris Agreement was calculated. I am still waiting to hear how that calculation was made, the pledge being to reduce emissions 50 to 52 percent by 2030, how is that possible and what regulations would be put in place to make that possible.

Administrator Regan committed to me back in April to provide EPA information used to develop the NDC. He has not fulfilled that promise. I am actually going to have breakfast with him next week. I will have to make sure not only here in a public forum but privately to reiterate this.

At the end of October, and after repeated attempts to get information, I still do not have a substantive response. I get the sense that slow-rolling this information hoping that this tax and spending spree we see being squabbled over over on the House side, would have been enacted by now, overshadowing some of the regulations the Administration has planned. That hasn't happened yet.

Now the Administration is trying to have something to present to the climate conference in Glasgow to show the world it will meet its overly ambitious targets. They appear focused on that audience, rather than the American public, workers, their families, and the folks elected to represent them in Congress as everybody watches their energy bills begin to skyrocket.

Proving this point in remarks earlier this year, John Kerry, the White House international climate czar, called for the U.S. intelligence community to verify the authenticity of Paris pledges by China, Russia, and other countries stating that, "I think the President would want to know if something is just baloney, or if a country is misleading." This Administration has eyes wide open for the pledges of other countries, but they have then closed the door on the accountability to Congress or the American people on what the costs and what the sacrifices and the benefits would be.

At the same time, the Administration, through an interagency working group, is pursuing options to develop and apply a new cost for emitting greenhouse gases. President Biden wants to use this figure, known as the social cost of carbon, in all areas of federal decision-making. Following several requests from me and other members of Congress, the leaders of the interagency working group admitted they will not hold a single public meeting on this issue. Despite the potentially wide-ranging effects of their proposals, Administration leaders are yet again hiding the ball from the American people.

Administration officials make vague, ominous remarks about using untested regulatory pathways to cut emissions. Yet, the President, President Biden still has not put forth a nominee to lead one of the EPA's most significant offices, the Office of

Air and Radiation, that is the very office that is reportedly developing the costly and far-reaching environmental regulations that the President will tout in Glasgow next week.

In the midst of a major supply chain and transportation crisis, the President has also not put forward a nominee to lead the Federal Highway Administration. The agency responsible to oversee the safe use of our Nation's nuclear energy power plants, the NRC, is currently working with just three commissioners and two vacancies.

Instead of ensuring transparency and accountability to the American people, the President has chosen to rely on his climate czars who are sitting in the White House and not accountable to us. Both of us are ready to advise and consent on nominees the President brings. It is time for him to stop delaying and to nominate individuals for the positions I mentioned and stop shielding the Administration's decisions.

This morning, we just have two nominees testifying, and they are great nominees, but it should be more.

I want to thank you again, Chairman Carper, for holding today's hearing. I want to thank our two nominees again for being with us today.

Thank you.

[The prepared statement of Senator Capito follows:]

Senator Carper. Thanks very much, Senator Capito.

I had breakfast with Administrator Regan maybe a month or two ago. I think you will find that constructive and helpful.

Senator Capito and I try to meet most Thursdays either in person or by phone if we are on the road. Some of the vacancies that you mentioned that we are looking for nominees, let's just talk about those and see what we can do to shake a few loose from the trees.

With that, thank you for your comments, Senator Capito.

Now we look forward to hearing from our nominees. We are going to start with Dr. Jennifer Clyburn Reed. Dr. Reed, you are recognized for your statement. Please proceed.

STATEMENT OF JENNIFER CLYBURN REED, NOMINEE, TO BE FEDERAL CO-
CHAIR, SOUTHEAST CRESCENT REGIONAL COMMISSION

Ms. Reed. Chairman Carper, Ranking Member Capito and members of the committee, good morning, and thank you for granting me this opportunity to appear before you as you consider President Joe Biden's nomination of me for Federal Co-Chair of the Southeast Crescent Regional Commission.

I also want to thank your staffs for the time spent with me over the past several days. The discussions have been engaging and informative.

I am grateful to President Biden for the faith and confidence placed in me by this nomination. If afforded the opportunity to serve, I pledge to prove your confidence well spent and do my family and friends proud.

Here with me today are my husband of 29 years, Mississippi native and Florida A&M graduate, Walter Reed.

Senator Carper. Did you say Walter Reed?

Ms. Reed. Walter Reed, yes.

Senator Carper. As in the hospital?

Ms. Reed. Yes.

[Laughter.]

Ms. Reed. My father, the Honorable Jim Clyburn, with whom you are probably somewhat aware. Joining me remotely, my son, Walter AC Reed, a graduate of Coastal Carolina University; my

daughter, Sydney Reed, a Mississippi State graduate and third year medical student at the Medical University of South Carolina; my sisters, Mignon and Angela Clyburn; my father and sister-in-law, Jackson State alumni, Dr. Walter Reed and Dr. Kathy Taylor. To the kinship and friendship circles supporting me from home, thank you.

I began my professional career 29 years ago as a public school educator with a Master's Degree. Over the next 25 years, I served as a classroom teacher, a middle school basketball coach, and a State Department of Education specialist. Along the way, I earned two additional academic credentials, an Education Specialist and Doctorate from Nova Southeastern University in Florida.

I concluded my educational career as Director of a teaching equity center at the University of South Carolina, where I also co-founded the Apple Core Initiative, a teacher, recruitment and retention scholarship program. I have continued my commitment to education as a committee member of the Emily E. Clyburn Honors College endowment at my State's only publicly supported HBCU, South Carolina State University.

Throughout these professional roles, I have remained true to my father's counsel that one should find something to do for which you are not paid. My community service began as a Girl Scout, then tutor at a public housing tutorial center with my

sorority sisters of Delta Sigma Theta Sorority, Inc. I served as board chair of the Greater Columbia Community Relations Council and currently serve as president of a non-profit which promotes first-time homeownership and the preservation and restoration of distressed and abandoned properties.

I believe that this background would be beneficial to me as I seek to continue my public service in a broader capacity and a wider community through the Southeast Crescent Regional Commission.

The Commission, which was authorized in 2008, focuses on distressed economic conditions in portions of six States: Mississippi, Alabama, Georgia, South Carolina, North Carolina, Virginia, and all of the State of Florida. Six States share two active regional commissions, the Delta Regional Authority and the Appalachian Regional Commission.

If confirmed, my initial goal will be to assess the needs and assets of each community within the Commission's 342 counties and identify challenges and determine the tools needed to progress them from distressed into transitional and attainment status. The Commission would then work closely with economic development districts, in partnership with State and local leaders, to formulate regional action plans using current and trending statistics with the input of community voices.

Believe me, I learned early in my career that one size does

not fit all. The Commission would seek to fund entities that make economic development a sustainable priority, while stimulating local entrepreneur development and nurturing private investment.

The formula used to target distressed counties through Congressman Clyburn's 10-20-30 plan states that 10 percent of certain appropriated funds be targeted to persistent poverty communities identified by the Census Bureau where 20 percent or more of the population has lived at or below the poverty level for 30 or more years. According to a report from the Congressional Research Service defining persistent poverty counties, there 407 in the United States. Ninety-two, or 22.6 percent of them fall within the jurisdiction of the Southeast Crescent Regional Commission.

Working in tandem with State and local municipalities to create opportunities to fill gaps in educational attainment, workforce preparedness, job creation, and physical and human infrastructure are challenges that beg for cooperation at all levels. If confirmed, the Commission will not waste valuable time re-creating the wheel. Instead, it will consult with other federal co-chairs to emulate best practices.

I will carry out the objectives of the Commission to strengthen areas with the greatest needs and I look forward to working with this Committee to ensure the Southeast Crescent

Regional Commission works for all of its citizens.

Chairman Carper, Ranking Member Capito, and members of the committee, thank you again for this opportunity to appear before you today. I look forward to any questions you have.

[The prepared statement of Ms. Reed follows:]

Senator Carper. Thank you, Dr. Reed.

Senator Capito, my first thought is the apple did not fall far from the tree.

Dr. Frey, we were joking yesterday about how he pronounces his name. A lot of people, F-R-E-Y, they pronounce it Fry. But he pronounces it Frey. He is a big music fan. He loves a band called The Fray, from Colorado, How to Save a life.

You are on Dr. Frey, welcome.

STATEMENT OF CHRISTOPHER FREY, NOMINEE, TO BE ASSISTANT
ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT U.S. ENVIRONMENTAL
PROTECTION AGENCY

Mr. Frey. Thank you, Senator Carper and good morning,
Ranking Member Capito, and members of the committee.

I am honored that President Biden has nominated me to serve
as Assistant Administrator in the Office of Research and
Development at the U.S. Environmental Protection Agency.

I also want to thank my wife, Deanna, and my daughter,
Loren, who are with me today, for their support.

Senator Carper. Which one is your wife?

Mr. Frey. The really good-looking woman sitting behind me.

[Laughter.]

Senator Carper. Would you raise your hand, ma'am? Nice to
see you. Welcome. Thanks for sharing him with all of us.

Mr. Frey. Thank you, sir.

In fact, she is sharing me with all of you and I am honored
that she is.

I also want to thank my extended family in New York, West
Virginia, South Carolina, Georgia and Florida, who are watching
today.

Science and the environment have long been my passions and
my purpose. I grew up in lower Manhattan in the 1960s and
1970s. My family lived in a rent-controlled, walk-up building

built in the 1880s. There was lead paint on the walls, choking smog outside, and greasy flakes of soot wafted from the sky, smearing my bedroom windowsill.

This affected me so much that when I was eight years old, I wrote an essay entitled Pollution. I posited that pollution is bad for people and animals too. Although I didn't realize it at the time, I identified multiple environmental media, fate and transport, and adverse effect outcomes.

My father typed and copied my essay and gave it to all of our neighbors. This was my first publication. I trace my career, my passion and my purpose, to that essay and to my firsthand experience with environmental pollution while growing up.

My parents instilled in me a passion for the environment as well as a sense of duty to serve the public. My father served honorably in the United States Marine Corps. After his military service, he became an oceanographer and a professor. He spent the last 22 years of his career with the National Oceanic and Atmospheric Administration. He now rests at Arlington National Cemetery.

My mother's passion was art. She was a painter and a writer. Her last book was a novel about dolphins, for which she conducted extensive research. Although not rich in a material sense, she had enormous wealth of spirit. She taught me to

listen to many different voices, understand how things work, and work with others to find solutions.

With my parents teaching me the value of listening, observing, and public service, it is no surprise that I found my way to environmental science and engineering.

I have been privileged to have spent most of my career in academia including 27 years at North Carolina State University. While there, I researched how to improve the efficiency and reduce the cost and emissions of coal-fired power plants. I helped governments and industry develop cost-effective solutions for emissions prevention. I researched improved quantitative methods for uncertainty in exposure and risk assessment. My research has also focused on measurement and modeling of vehicle emissions and human exposure to air pollution.

My research has helped inform a variety of decisions from improving traffic signal timing to reduce vehicle emissions as well as the selection of ambient air quality standards taking into account uncertainty in health risk assessment.

As an experienced researcher and professor, I am a champion of science and its essential role in keeping American families healthy and safe. I am proud of the quality, scope, and impact my work has had, as demonstrated by my extensive peer reviewed publication record and numerous awards, including the Excellence in Air Pollution Control Award from the Air and Waste Management

Association.

I have been invited to share my expertise on numerous national and international expert advisory panels. As Senator Carper noted, I have worked multiple times with the Office of Research and Development and I have served on the Science Advisory Board and chaired the Clean Air Scientific Advisory Committee.

I believe that I have the scientific credentials, expertise, experience, vision, and commitment to serve as ORD's Assistant Administrator and to lead ORD's world class research staff.

Senators, applying science to solve complex challenges that affect the lives of the American people has been my highest priority throughout my career. It would be a tremendous privilege to continue this dedication at EPA.

I recognize, as Senator Capito alluded to, that science is just one of the many factors that inform policy decisions. If confirmed, my leadership will start with listening. The complex environmental challenges our Nation faces require an all hands on deck approach, drawing on the experience, expertise, and perspectives of numerous stakeholders, including all of you, Senators.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Frey follows:]

Senator Carper. Dr. Frey, thanks very much for your testimony. Thank you both for your testimony and your presence.

We are now ready to begin with the questions for our two witnesses. Senator Capito and I have agreed to two five-minute rounds of questions with additional rounds at the discretion of the Chair and the Ranking Member.

To begin, this committee has three standing yes or no questions that it asks all of our nominees who appear before us. I am going to ask each of you these questions.

First, do you agree, if confirmed, to appear before this committee or designated members of this committee and other appropriate committees of the Congress, and provide information subject to appropriate and necessary security protections with respect to your responsibilities? Do you, Dr. Reed?

Ms. Reed. Yes, sir, I do.

Senator Carper. Dr. Frey?

Mr. Frey. Yes, sir, I do.

Senator Carper. Second question, do you agree to ensure that testimony, briefings, documents and other electronic forms of communication or information are provided to this committee and its staff and other appropriate committees in a timely manner? Dr. Reed, do you?

Ms. Reed. Yes, I do.

Senator Carper. Dr. Frey?

Mr. Frey. Yes, sir, I do.

Senator Carper. One more. Do you know of any matters which you may or may not have disclosed that might place you in a conflict of interest if you are confirmed? Dr. Reed, do you?

Ms. Reed. No, sir, I don't.

Senator Carper. Dr. Frey?

Mr. Frey. No, sir.

Senator Carper. Dr. Reed, you spent many years as an educator, one who I am sure has taught and inspired other educators. I love to go into schools. I know my colleagues Senator Capito and Senator Inhofe do as well. I really enjoy school assemblies, even with little kids.

I always remember being in an elementary schools, it was kindergarten to grade five. They had an assembly with a couple hundred kids. Front row was third grade and I spoke for a little bit and then we had a Q and A.

This little girl in the third grade raised her hand. I said, yes, ma'am, what would your question be? She said, "What do you do?" I said, "I'm a United States Senator. We have 50 States and every State has two senators. You have rules for your school, don't you?" She said, "Yes." I said "You have rules on your bus?" She said "Yes." I said, "You have rules at home?" She said "Yes." I said, "We have rules for our Country. Along with another Senator, Senator Chris Koons and our

Congresswoman Lisa Blunt Rochester, I get to help make the rules for the Country."

A little boy sitting next to her raised his hand, I said, "Yes, sir, what would your question be?" He said, "What else do you do?"

[Laughter.]

Senator Carper. I told him that I try to help people, try to help people. One of the ways we try to help people is to make sure they have clean air to breathe, water to drink and on and on.

If those third graders had been asking you what you would be responsible for doing, if you are confirmed for this position, how would you explain to them that they and their parents and others could have a real appreciation for a position that has basically gone unfilled for I think decades?

Senator Capito talked about this Administration has not filled every seat that could be filled by a nominee. This is a job that has gone decades with nobody, Democrat or Republican, has ever nominated anyone for it. That is about to change -- that has changed.

Go ahead, please? What do you do? What would you do?

Ms. Reed. Thank you very much for that question, Senator.

I envision having several conversations with many of my former students and their children at this point to let them

know that my vision has not changed from when I taught them in school. That is to help them become better citizens, to help their neighborhoods become more conducive to living and learning and growing and prospering.

The commissions, they all have a purpose. That is to create strong infrastructure, to create job development environments that are safe, and promote private investments and entrepreneurship and to really get that infrastructure, particularly in looking at broadband in the last mile.

The Commission will work with local leaders at the grassroots level and help them at their level. I have told people time and time again, the closer your government is to you, the more they influence your lives.

That is the level of influence in which we would help, the Commission would help that level so that lives can be impacted immediately.

Senator Carper. I am going to ask you to give us some preliminary answers to a question I am going to ask right now. The question is this, and you can answer for the record.

Are there ways that other agencies, or even Congress, even this committee, might be of help to you as you stand up this commission and lead it? How can we be helpful?

Ms. Reed. Thank you for the question.

Other agencies that will be helpful, particularly your

committee and Congress, first of all, would be the appropriation of funds to help the Commission get off the ground. As we noted earlier, this commission only exists on paper, so we would need to create small committees to stand up the committee in the southeast region.

Priority will be looking at where to have a presence, where would that presence be as a physical structure and then move outward in a broad sense to meet those people who are at the table and at the grassroots level.

Senator Carper. That is a good start.

Let me note, as it turns out there are seven of these regional commissions. This is one we are trying to stand up now.

Ms. Reed. Yes.

Senator Carper. One of them is the Appalachian Regional Commission, which is a big part of West Virginia. The chair is somebody you know, Gayle Manchin. Dr. Reed told me she was on the phone talking to Gayle Manchin the other day.

I like to say, find out what works, do more of that. One of the best ways you can do that is reaching out like you did with Gayle Manchin and the other regional commissions to find out what works and what doesn't. I am sure they will be happy to help you.

Ms. Reed. Yes, absolutely.

Senator Carper. Senator Capito.

Senator Capito. Thank you. Senator Inhofe, do you want to go before me?

Senator Inhofe. I appreciate that very much. Thank you for the opportunity to move ahead of you. I have to get over to another committee.

Let me say first of all say, Ms. Reed, unfortunately I only served with your father for a year and a half but that was a very rewarding year and a half. I consider him to have remained a good friend in that time.

Dr. Frey, the EPA's Robert S. Kerr Research Center, I know you are familiar with that, in Ada, Oklahoma. It has been there for a long period of time. It is leading the Nation on a type of water research known as enhanced aquifer recharge, or EAR for short. They have done a very good job for a long period of time.

As you know, it utilizes natural methods for the capture and replenishment of our Nation's aquifers. For years, Congress has allocated the funding, necessary funding to keep that going.

Dr. Frey, it was my understanding, and I got this secondhand so I honestly don't know, Dr. Frey, the source. But apparently there has been a holdup in coordinating the local entities as we normally are expecting. Would you make advancing research in this enhanced aquifer recharge a priority if you are

confirmed?

Mr. Frey. Yes, thank you, Senator Inhofe. This is obviously an important issue for your State of Oklahoma because the aquifer, the Arbuckle-Simpson Aquifer, in particular, is a major resource for farmers, ranchers, and anyone who drinks water.

Yes, the program you allude to on enhanced aquifer recharge, ORD staff have been working with the U.S. Geological Survey on engineered methods to use stormwater to help recharge the aquifer. As you point out, that is being done at ORD's Ada, Oklahoma lab.

Yes, this is an important priority for us. It is something that I anticipate and would expect under my leadership that we would continue to work with you on this issue because I know it is important to you and for Oklahoma. It is also important that the same issues are faced in other parts of the Country as well.

Senator Inhofe. I appreciate that very much, and that you are familiar with that program.

I understand that you are on a leave of absence from, it is an unpaid academic position you have had with the Hong Kong University of Science and Technology. One federal watchdog group called this Chinese university "anything short of an arm of the Chinese government."

I am pleased that you have committed to resigning this

position with this university should you be confirmed. First, I want to ask you if that would be your intention.

Mr. Frey. Absolutely, sir, yes.

Senator Inhofe. Do you share the concerns that we have that with China's poor record? They are the largest polluter out there, on record, it particularly remains the world's largest polluter, as they still are, today.

What are your thoughts about that? Should that be a factor in your confirmation process?

Mr. Frey. Thank you, Senator Inhofe.

Senator Inhofe. I want to give you a chance to address that because others have talked about it.

Mr. Frey. Yes, and I really appreciate this opportunity.

My involvement with research colleagues in Hong Kong is because as an educator for 27 years, my goal has been to mentor students and to develop new knowledge. It is a very common practice in academia to seek out international collaborations, especially in areas of science where we can deal with challenging scientific issues that help us push the boundaries of our own science.

My relationship with colleagues at the HKUST, the university you mentioned, has been one of research and mentorship of students and collaboration specifically on issues of human exposure to air pollution.

I think we all know that region of the world is facing very severe air pollution. There is actually a lot of interesting science issues there we can learn from to inform best science here in the United States. My work has really been in the realm of the science, not in the realm of the policy or the geopolitical issues that you mentioned.

I will say that when I came onboard in my current role with the EPA nine months ago, I fully disclosed all of my affiliations, including this unpaid adjunct affiliation. I have been following the advice of our Office of General Counsel at EPA and ethics officials. On that advice, if confirmed, I would resign this unpaid adjunct position.

Senator Inhofe. It has always been a concern to me that many of the extreme groups that are out there hold a great regard for China and their record and yet they continue to be the greatest polluter around. I have often wondered how they get by with that.

Thank you very much, Dr. Frey.

Mr. Frey. You are welcome, Senator.

Senator Inhofe. And thank you, Senator Capito, for giving me some time up front.

Senator Carper. Senator Capito, you are next.

Senator Graham, welcome. Once Senator Capito has asked her questions, you will be recognized. You will be next in line.

Thank you. Thanks for joining us.

Senator Capito. [Presiding.] Dr. Frey, when we talked on the phone last week, I kind of hit you, I think, with a surprise. I am going to talk about the 2019 research paper of which you were one of many of the authors, that laid out an ideal situation on college football tailgating which would be a ban on idling, charcoal grills and old generators. We decided this was not realistic.

You did tell me that you grill out at least three times a week and you are fuel agnostic. Thank you for clarifying that world-changing research paper. Because, I can imagine those South Carolina Gamecocks would not be for that either.

[Laughter.]

Senator Graham. That is the only reason we go.

Mr. Frey. Nor the Wolf Pack to be honest.

Senator Capito. Nor the Wolf Pack. Yes.

Let's talk a little bit, you wrote a letter to the editor of the Raleigh News and Observer taking on the Clean Power Plan claims. In the letter, you disputed assertions that the Clean Power Plan was "an act of overreach."

You are going to be dealing this and I would imagine are going to be asked to do research in this area. As we know, the Clean Power Plan has fallen and there is speculation, at least we are hearing, that there is going to be something that comes

in to fill the space.

Do you believe that EPA acted within its statutory authority when it issued the Clean Power Plan? Should EPA use the Clean Power Act to regulate a power plant's carbon dioxide emissions outside the fenceline?

Mr. Frey. Thank you, Senator Capito. Obviously, carbon emissions from power plants are a substantial issue of national environmental interest.

Early in my career, as a Ph.D. student at Carnegie Mellon University, I did research with the U.S. Department of Energy Laboratory in Morgantown, West Virginia where I was doing techno-economic assessment of clean coal technologies. I have done a little bit of work looking, for example, at carbon capture in some of my research as well. I know this is an important issue.

With regard to the letter you that referenced, a colleague and I were mainly addressing what we viewed as some factual issues in an op-ed that had been published a week or so earlier. We weren't so much getting to the legal authority for the Clean Power Plan. I do know that is an issue of robust debate on the part of multi-stakeholders.

Certainly, if confirmed as an Assistant Administrator for the Office of Research and Development, it is really not my swim lane or space to weigh in on those legal policy issues. My

commitment would be to lead ORD to provide the science that is needed to inform those kinds of decisions on the part of our partner program offices that would be considering those legal and policy issues.

Senator Capito. I would urge you, should you be in this position is where the transparency aspect comes in, not to shield part of the research or part of the science that comes from -- maybe sometimes it does not say exactly what the policymakers want it to say. We know that happens frequently. I would make that plea again for the transparency.

Dr. Clyburn Reed, you mentioned 342 counties in the Crescent. As I stated in my opening statement, I have quite a bit of experience with the ARC and the great work it can do. You said a couple things in your opening statement that are important.

First of all was partnerships. The commission can't do it all. You have to work with your local, all up and down the spectrum from private to public entities. That is good.

The other thing I would say, you mentioned the persistent poverty counties, the 92 counties. You are going to have to prioritize. Obviously if you are starting anywhere, you have to figure out where you can have the biggest bang for your buck but also make the most, as you said, make the most impact with what you have.

Is that how you would prioritize in terms of the lowest poverty? I would recommend that myself, I guess is what I am saying. Start with the places that you can really make improvements on.

I liked your talk about broadband in answer to one of the questions. Because that is one way I think that you could see measurable improvements.

Have you thought about these 92 persistently poverty counties? I am sure some are in South Carolina, not everywhere. How would you attack that kind of economic development issue?

Ms. Reed. Thank you for that question.

Yes, those 92 counties are really concerning. That is a lot.

Senator Capito. Right.

Ms. Reed. First, as I have had a conversation with Gayle Manchin in the Appalachian, I will have a conversation with her chief of staff as well as to how they go about prioritizing. We would mirror our actions after what the ARC actually does.

In looking at the needs of my State in particular, one size does not fit all, like I said before. So the grassroots level community leaders working at the State level with the governor's office, we would come up with a plan that would be conducive to the state we are in.

Every State will be responsible for doing that, every

governor. We will look at seven different plans and then we will prioritize those particular counties first and then move from there.

Senator Capito. I would imagine, with your background as an educator, you have a good reach into that aspect of persistent poverty, what is the education availability levels and all those types of things I think probably contribute to some of the factors of the high poverty levels.

I will turn now to Senator Graham.

Senator Graham. Thank you both very much, Senator Carper and Senator Capito.

I am here very quickly, because there is a hearing in Judiciary, to give my wholehearted support to Dr. Clyburn Reed for this job. I have known her family quite a while. This is an excellent choice. She will do a great job.

I know the entire family is proud, but all of us in South Carolina are very proud of the fact that you will be the co-chairman of this organization. I just want to thank you for being willing to serve.

Ms. Reed. Thank you, Senator.

Senator Graham. I would echo what Senator Capito said. Broadband is a game changer. We have learned from COVID if you can't go to school, are stuck at home and the internet does not work, you kids fall behind, that telemedicine is the future.

Getting to the doctor, you don't have to get on the road as often to get to the doctor. You can consult your doctor if you have the right technology. That keeps people off the highway, keeps us safe and allows medicine to be done in a new and different way.

As the electric co-ops changed rural America about 75 to 80 years ago, I think broadband is going to be the equivalent of that for the 21st Century and beyond.

I want to recognize the work your father has done on this. Jim is here. I know he is here as a proud father, as a distinguished member of Congress and a very well-known and respected South Carolinian. I look forward to helping you with this nomination.

When you get the job, I want to do what Senator Capito did, let's put all of our resources into upgrading these rural counties which have been left behind, many of them predominantly African American.

Mr. Frey, I am glad to see you have changed your opinion about charcoaling at ball games. So all is good. Thank you both.

[Laughter.]

Mr. Frey. Thank you, Senator.

Ms. Reed. Thank you, Senator.

Senator Carper. [Presiding.] Thanks very much for joining

us, Lindsay.

I want to turn now to a question for Dr. Frey dealing with experience and goals for the EPA Office of Research and Development.

Dr. Frey, before joining EPA earlier this year as the Office of Research and Development's Deputy Assistant Administrator for Science Policy, you already had significant experience working with the agency, including 10 years in which you served as a member of the EPA's Scientific Advisory Board, a member for FIFRA's Scientific Advisory Board, and a member and chair of EPA's Clean Air Scientific Advisory Committee.

How has this experience informed your approach to leading the Office of Research and Development? What are your goals for this office if confirmed?

Mr. Frey. Thank you, Senator Carper, for that question.

Those experiences that you referenced have been very influential and informative in my preparation, if confirmed for this role through all of those federal advisory committees I have served on. What I have learned from that is how incredibly important it is that the agency has access to the independent, external, scientific advice of world class experts who are leading scientists in their respective fields.

Also, the problems we face transcend so many boundaries, including boundaries of scientific disciplines. We really need

all scientists on deck just like we need all hands on deck more broadly.

These committees are an important way that we engage with the external science community in an open and transparent manner, including public comment and the opportunity for our external experts to hear the views of multiple stakeholders and consider that in providing their advice and peer review to the agency. So it is a critical role.

In terms of my priorities, if confirmed, my three biggest priorities, number one, ORD has an outstanding career workforce. I am so proud to work with the career scientists and all the support folks in ORD. We need to be positioned for emerging challenges and for challenges of the future. So it is critical that with the resources available to us from Congress that we hire scientists in key disciplines that will move us forward, and also that our workforce becomes more diversified and that our workforce looks more like the America we are serving.

Number two, we have so many high priority, urgent scientific challenges from the President, from the Administrator, and what we are hearing from our stakeholders, tribal stakeholders, community stakeholders and the scientific community, issues that I think you are all well aware of, climate and environmental justice, PFAS, lead, the aquifer recharge that Senator Inhofe referred to, harmful algal blooms

and many, many others. ORD is a national resource and I would be very proud to lead the science team at ORD to meet the science needs of the Country and the agency.

Then the last thing is, we really need to help solve problems, but we have to do so, as Senator Capito alluded to, with credibility. It is important to me that we do our science with integrity and that we develop and translate the best available science to inform all of our partners. We need to do policy relevant science that answers policy questions, but we need to do rigorous, best available science. That is the role of ORD.

Senator Carper. Good. Thank you for that.

Dr. Reed, you had a chance to actually take a shot at the question I am going to ask you right now. If you want to amplify on what you said earlier, go ahead.

Here is my question. How does your experience in South Carolina inform your understanding of what the Southeast Crescent Regional Commission can do for communities across the Southeast Crescent Region?

Ms. Reed. Thank you for that question.

My experience in South Carolina in education, let's start there first. As an educator, it is my job to do long range plans. Looking at our long range plans as an educator, I make monthly goals, then weekly lesson plans, then daily lesson

plans. This is a process that I have done for over 30 years.

So in approaching the activities of the Southeast Crescent Regional Commission, I would start with a strategic plan. In that plan, then we would outline the needs and the assets of each one of the communities in each one of the States.

Particularly in South Carolina, we have seen how the lack of broadband in several areas has cost us economically. The primary goal of the commission is economic development. So we would need to fill the gap in our State and in other States where those gaps are, so that we can grow and prosper economically across the region.

Senator Carper. Great. Thanks for that response.

Senator Capito?

Senator Capito. Thank you.

Dr. Frey, wanted to ask you, I mentioned in my opening statement that there is no nominee for the Office of Air and Radiation. If there were a nominee, I would ask that nominee this question as well.

Apparently, Joe Goffman, the current, unconfirmed head of the Air Office, has said that the Administration is working an initiative regarding the power sector. That leaves us all to guess, what is that? It could be a suite of regulations to drive down carbon dioxide emissions by squeezing the power sector through regulations on issues other than carbon dioxide,

like emissions, water, waste. And the net effect being to force coal and perhaps natural gas plants to not only reduce operations but possibly close.

Are you aware of this initiative that is going on under his leadership? Have you provided research assistance on this?

Mr. Frey. Thank you, Senator Capito.

Yes, of course it is the role of ORD to provide scientific support and advice and information to support the work of our program offices. ORD, for example, has the capability to do energy mix modeling and life cycle analysis, and also to look at the health effects related to the operations of the energy sector. These would be the kinds of support we can provide.

Certainly, there are discussions within the agency on initiatives. But as far as specific details of what the Office of Air and Radiation is considering, I would have to defer to that office, since our focus is on the science and not the policy.

I would be happy to take your question back with me to the agency.

Senator Capito. I guess my question too was to your knowledge, at present has this already involved the office of ORD to bring forward specific studies that would help with this regulatory goal? Or are you not aware? Do you want to get back to me on that?

Mr. Frey. I think I would want to get back to you on that to give you an accurate answer.

Senator Capito. All right. That sounds good.

Also the Office of Research and Development oversees the Integrated Risk Information Center, known as IRIS. Are you familiar with that?

Mr. Frey. Yes.

Senator Capito. The IRIS program, I guess you must have been alluding to this a little bit, health hazards of certain chemicals, and hazard assessments are then used for health standards. You know this is an issue I am very concerned about as it relates to the PFAS issue.

The GAO has criticized EPA for the length of time to complete an IRIS hazard assessment. The agency has been further criticized because of the lack of usefulness of some of those assessments.

Could you describe for me how you could modernize this system on this program to respond to some of the previous criticism?

Mr. Frey. Yes, thank you, Senator. The IRIS program has been with the agency for well more than a decade, I think longer than that. In my own career, in addition to the service I have had on EPA advisory committees, I have served on a number of National Academy of Science bodies, including the Board of

Environmental Studies and Toxicology that has done a number of studies that oversee and provide advice and peer review of IRIS.

I know that over the years, IRIS has undergone maturation as a result of the expert peer review advice from the National Academies. In recent years, the staff have modernized approaches on things that we call systematic evidence mapping and related techniques for assessing the overall body of evidence. This has been based on recommendations from the National Academy of Science.

We also are very mindful that in using resources for this program, we need to complement and not be duplicative of any other resource use in the agency. We do coordinate very closely with our partners in the program offices.

IRIS assessments do serve the needs of science, of really all of the regulatory programs, the Air, Water, Land, and Chemicals Offices. We work very closely with the programs as well as the EPA regions to understand for what chemicals do they see a need for assessment, so when we do an assessment, it is on a chemical for which they need information that serves a practical purpose.

Senator Capito. All right, thank you. Thank you both.

Senator Carper. I would like to refocus a little bit on PFAS, that is something, an issue that Senator Capito and I have focused on a lot, especially given the challenges they face in

West Virginia with PFAS and in many other States, including Delaware around Dover Air Force Base in particular.

As you know, last week Administrator Regan, this is for Dr. Frey, Administrator Regan released a comprehensive strategic road map that lays out the agency's plans to address the complicated challenges of forever chemicals known as PFAS. Considering the role of the Office of Research and Development, I expect that your office would have a significant role in this effort.

My question is, under your leadership, how will the Office of Research and Development support the implementation of EPA's PFAS road map which was announced and laid out earlier this month?

Mr. Frey. Thank you, Senator Carper, for that question.

In the PFAS road map, the very first premise of that is research. The President and the Administrator are committed to a science-informed approach on PFAS. So ORD will certainly have, if confirmed, under my leadership, will have a front and center role on developing the science to support our partners throughout the agency, but also outside the agency. As you allude to, many States are dealing with PFAS, tribal communities, and communities in general.

There are three main things that will be my focus. Number one is we actually need to develop more methods to measure PFAS

in the environment. There are literally thousands of PFAS and yet there are approved methods for really only a dozen or so. We need to be able to measure them in multiple environmental media. This is one of the research areas where ORD will contribute. This is necessary; we have to measure it to be able to manage it.

The second is ORD is I think leading, providing world class leadership on how to do the toxicity testing so that we can understand the human health and environmental effects of PFAS recognizing because there are so many PFAS, they are not all the same. We have to account for variations among different PFAS to have effective management schemes.

The third is, we have to know how to manage PFAS. What can we do to remediate PFAS or to treat PFAS in drinking water or waste water or to destroy PFAS. These are technologies that ORD is assessing and providing advice to our partners.

Senator Carper. You talked earlier about wanting to be guided by science. I think that is great. We hear that; we want to as well. We also want to make sure that we make some progress. The last Administration, I think it is unfair to say we have wasted four years but we didn't get much done in the last Administration. I am pleased that this Administration has laid out a road map. Senator Capito, myself and others on this committee are anxious to make sure we make real progress in the

next months as well as the coming year.

How to save a life? There are a lot of ways we can save a life. One of the ways we can save a life is to make sure we focus on PFAS, getting it right and that we are intent on doing that.

I have maybe one last question and then will yield to Senator Capito for any last questions or comments she wants to make.

Let's talk a little about tribal nations. We work on this committee a fair amount with tribal nations which was a surprise to me when I joined the committee but it is a pleasure and privilege. If you are confirmed, how will the Office of Research and Development work with tribal nations across our Country to improve the natural environment and health of indigenous Americans?

Mr. Frey. Thank you, Senator.

You alluded to my current role at ORD. I have been with the agency about nine months. One of my priorities in coming onboard has been to engage with tribal communities and tribal representatives.

I am really proud that the Office of Research and Development has a Tribal Science Council. We have a collaborative model of working in partnership with tribal representatives from across the Country on identifying science

issues and working together with tribal scientists to address those issues.

Certainly, we are hearing from our tribal partners about climate change, environmental justice issues, water resources. We also have to recognize the importance of traditional ecological knowledge and tribal lifeways as factors that are important to tribes in identifying problems tribes think are important. We have to be careful not to assume that in our offices in Washington, we know the answers that the tribes need. It is very important that we engage with tribes.

I mentioned in my opening remarks that my leadership will start with listening. I have been listening to the tribes. As part of our research planning efforts, which are actually ongoing at this time, we will be doing formal consultation with tribes to internalize their concerns into our research agenda.

Senator Carper. Thank you.

Senator Capito, any last thoughts or questions you would like to add?

Senator Capito. No. I would just like to thank both of you for being here and your families and your support. Again, I just want to express my gratitude for your willingness to serve. Thank you.

Mr. Frey. Thank you, Senator.

Senator Carper. I would say I want to second that emotion.

I want to thank you both for being here today. Dr. Reed, it is a real pleasure to see you in person. Dr. Frey, thank you for being here today and teaching us how to pronounce your name.

[Laughter.]

Mr. Frey. Thank you, sir.

Senator Carper . We are grateful for both of you and your willingness to serve our Country, especially at a time when we are addressing our Nation's environmental challenges. There are plenty of them. Also, fostering economic development is so critical.

Dr. Reed, I spent some time as governor, actually before that, focusing on job creation and job preservation. The Appalachian Regional Commission, a lot of that Commission is included in the State Senator Capito represents, the State I was born in.

I mentioned to you when we spoke earlier this week, governors don't create jobs, Senators don't create jobs, Presidents don't create jobs, even chairs of regional commissions don't create jobs. But we help create a nurturing climate for job creation.

I mentioned the Center for Automotive Excellence in southern Delaware. It is housed at the Delaware Technical Community College campus. It is a partnership that involves auto dealers, poultry industry folks, the Economic Development

Administration, Sussex County, Delaware State, all of the above. It is like we tied our ropes, pieces of rope, tied them together to create a community rope. That is the best economic development I have seen is where we do that as a partnership.

You are going to have an opportunity to help provide some of the rope and help tie those ropes together. Make the most of that.

Again, I want to say to your families who are here, particularly to your dad, Dr. Reed, it is great to see him. I want to thank him and your mom for raising you and preparing you for all the opportunities you have had.

I would say again to Chris Frey, Dr. Frey, I know your wife is here. Thank you for our willingness again to share your husband. Is that your daughter over your right shoulder? What is her name?

Mr. Frey. Loren.

Senator Carper. Loren, very nice to see you. Thank you for joining us. You have done a really good job raising your dad. You can be proud of the way he has turned out.

[Laughter.]

Senator Carper. If I could be serious for a moment, it is not hard to understand why the President has nominated each of you for these important positions. Our hope is you can be confirmed without delay so that you can go to work and assemble

your teams. One of the most important things to do is assembling the team. You have a great opportunity, Dr. Reed, to put together a team. It is like having a blank board. Make the most of it. Find the best people you can and surround yourself with them.

Before we adjourn, we have a little bit of housekeeping. I want to ask unanimous consent to submit for the record a variety of materials that includes letters from stakeholders and other materials that relate to today's nomination. Is there objection? Hearing none, so ordered.

[The referenced information follows:]

Senators will be allowed to submit questions for the record through the close of business on Wednesday, November 3rd, 2021. We will compile those questions, send them to our witnesses and ask our witnesses to reply by Wednesday, November 10th.

With that, this hearing is adjourned. Thank you all.

[Whereupon, at 11:14 a.m., the committee was adjourned.]