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THE FISCAL YEAR 2025 NUCLEAR REGULATORY COMMISSION BUDGET

TUESDAY, JULY 23, 2024

House of Representatives,

Subcommittee on Energy, Climate, and Grid Security,

Committee on Energy and Commerce,

Washington, D.C.

The Subcommittee met, pursuant to call, at 10:01 a.m. in Room 2123, Rayburn House Office Building, Hon. Jeff Duncan [Chairman of the Subcommittee], presiding.

Present: Representatives Duncan, Burgess, Latta, Guthrie, Griffith, Bucshon, Walberg, Palmer, Curtis, Lesko, Weber, Allen, Balderson, Pfluger, Rodgers (ex officio); DeGette, Peters, Fletcher, Matsui, Tonko, Veasey, Kuster,

Schrier, Castor, Sarbanes, Cardenas, and Pallone (ex officio).

Also present: Representatives Carter, Joyce; and Miller-Meeks.

Staff Present: Sarah Burke, Deputy Staff Director; Nick Crocker, Senior Advisor and Director of Coalitions; Sydney Greene, Director of Operations; Nate Hodson, Staff Director; Tara Hupman, Chief Counsel; Sean Kelly, Press Secretary; Peter Kielty, General Counsel; Emily King, Member Services Director; Elise Krekorian, Counsel; Mary Martin, Chief Counsel; Brandon Mooney, Deputy Chief Counsel; Kaitlyn Peterson, Clerk; Karli Plucker, Director of Operations (shared staff); Peter Spencer, Senior Professional Staff Member; Dray Thorne, Director of Information Technology; Waverly Gordon, Minority Deputy Staff Director and General Counsel; Tiffany Guarascio, Minority Staff Director; Margaret McConville, Minority Press Intern; Sanjana Miryala, Minority Intern; Kristopher Pittard, Minority Professional Staff Member; Emma Roehrig, Minority Staff Assistant; Kylea Rogers, Minority Policy Analyst; Andrew Souvall, Minority Director of Communications, Outreach, and Member Services; Tuley Wright,

Minority Staff Director, Energy, Climate, and Grid Security; and C.J. Young, Minority Deputy Communications Director.

*Mr. Duncan. The Subcommittee on Energy, Climate, and Grid Security will now come to order.

The chair recognizes himself for five minutes for an opening statement.

So good morning. I want to welcome all the new hires at NRC in the back of the room. I spoke to them earlier, and welcome to this hearing. I hope it is informative and that you take some lessons from this today and apply it as you go forward. So good morning.

Let me welcome the four commissioners of the Nuclear Regulatory Commission: Chairman Hanson, Commissioner Wright, Commissioner Caputo, and Commissioner Crowell.

Our nation and the world is embarking on a nuclear renaissance, and we need to ensure that we are ready for it. You all are responsible for ensuring the NRC performs its mission appropriately to meet the laws and policies enacted by Congress. That is reflected in your guidance to the Commission, your policy-making, and your leadership. It is also reflected in how the staff performs, the judgments and decisions they make to advance the mission. This may be seen in several ways, such as in budgeting and the decisions for

timing and resources to do license reviews, and in the approach to new and novel licensing challenges like new factory built reactors. We look forward to discussing this with you all today.

And I said it is an exciting time in the nuclear energy sector. I mean, all evidence shows that we are on the precipice of this new renaissance. Nuclear energy plays a critical and growing role in providing reliable power and enhancing energy security and our American global leadership. Nuclear energy is clean, and advancing nuclear energy keeps our engineering and technology based sharp and focused on atomic innovations, a boon to the nation's security and our innovative spirit.

This Congress, and particularly the Energy and Commerce Committee, has been united and ambitious in advancing durable and bipartisan policy that will expand nuclear energy and its many benefits to the nation and the world. Our goal has been to bring America's nuclear promise back into alignment with the goals that Congress established when passing the Atomic Energy Act. This goal came to fruition in the bipartisan and bicameral nuclear package that was signed into law by

President Biden on July the 9th. This package passed with overwhelming bipartisan support as the Atomic Energy Advancement Act in the House, and the ADVANCE Act in the Senate.

While we are all proud of this effort, enacting a law really is just the first step to realizing nuclear energy's promise. The burden now shifts to you and the Commission staff to implement the law. And I hope you and the staff understand we are not enacting laws just to validate what you are already doing. We are enacting laws to drive you to improve and perform at a new level, a level that is needed for a modern regulatory agency to provide the certainty that will unleash nuclear innovations.

In recent years we have witnessed plenty of examples of the NRC failing to be an efficient, thoughtful regulator. At your budget hearing last year we talked about the unacceptable pace of subsequent license reviews. We talked about the failure of the staff to respond to congressional direction and the formation of new regulations for advanced reactors. These appear to be symptoms of deeper failures, despite progress on some fronts, which is worrisome if the

NRC is going to perform its mission efficiently going forward. Those failures must be addressed.

The ADVANCE Act requires you, the NRC commissioners, to take the lead and clarify the agency's mission. This is so that all understand your licensing and regulation must be efficient and will not unnecessarily limit deployment of nuclear technology or the benefits of nuclear energy to the public.

I said last year, I will say it again, NRC is set to foster nuclear innovation in this country and not necessarily be an impediment to that, all the while keeping safety concerns that you are charged with in the Atomic Energy Act at the forefront. Congress placed the burden on you, the leaders of the Commission, to ensure staff, leadership, and line staff get the message, and will hold you to account for ensuring that that happens.

Many provisions of this new law seek to align NRC licensing and oversight activity with Congress's goals of advancing nuclear energy. The ADVANCE Act policies reflect responses from stakeholders and information developed in our oversight, including multiple committee hearings. Our goal

was to identify what is needed to create a better functioning regulator that can provide reasonable assurance of adequate protection of public health and safety, while also not inhibiting the benefits of nuclear power. In the new law we pressed the NRC to lean in and fast track licensing at brownfields and retired fossil fuel sites, expedite the review of combined licensing applications, continue to modernize environmental reviews, and more. We require you to reduce licensing costs for advanced reactors, encourage U.S. nuclear exports, and support advanced nuclear fuel concepts.

With energy demand growing fast all across America, especially to provide power for data centers and AI, the need for more nuclear power is increasing, as is the need for a regulator prepared to meet the growing volume of applications and advancement in technologies. So I look forward to discussing with you today how we can be sure the NRC is ready for this future.

And I will take just a moment and I will thank my colleagues on the other side of the aisle for the true bipartisan spirit that we passed the Atomic Energy Advancement Act and the ADVANCE Act, and the work that the

Ranking Member DeGette did on this.

[The prepared statement of Mr. Duncan follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. And I now recognize her for five minutes.

*Ms. DeGette. Thank you so much, Chair Duncan, and congratulations to you, too. I want to thank the Nuclear Regulatory Commission commissioners for being here today.

As the agency that is responsible for overseeing our nuclear fleet and radioactive materials, the work that you do is vital not just to our nation's overall energy security, but also to the health and welfare of the American people.

As the chair said, the bill that we passed was really a collaborative effort with Chair Duncan, Chair McMorris Rodgers, and Ranking Member Pallone to support NRC's mission. We all were standing together in the Oval Office just two weeks ago to watch President Biden sign the ADVANCE Act into law, and I couldn't help but feel pride. This has not been a productive Congress for the most part, and this is one of the most productive and important bills that we have passed.

During my years in Congress and on this committee, this bill really stands out as something that is going to help advance the cause, and we really need to do it. One of my main contributions to the ADVANCE Act came via H.R. 4528, the Strengthening the NRC Workforce Act.

Now, I am also happy to welcome all of you employees here today. I don't think you were hired because of our bill that was just signed two weeks ago, but I will say we are going to be sending you some reinforcements under the ADVANCE Act, and we are very proud of that. What this bill does is it provides NRC with the authority to direct-hire, hiring and performance bonus authority, and to offer alternative compensation as we granted to FERC back in the Bipartisan Energy Act of 2020. To fully realize the potential of nuclear power, we must ensure the long-term future of its workforce. And I am very happy of the role I played in this.

As I said, though previously, quite often nuclear power is not a silver bullet. But if we are going to get to zero carbon emissions by 2050, which is what the scientists say we need to do, nuclear energy must be part of the mix. Currently, nuclear energy is responsible for producing 20 percent of all the electricity generated in this country, and nearly half of all the carbon-free electricity in the U.S. that the U.S. generates each year.

Experts agree nuclear energy has the potential to play a significant role in our efforts to drive down our nation's

greenhouse gas emissions as we continue to take on the climate crisis. As we work to reduce our emissions from the U.S. energy sector and make the clean energy transition, nuclear energy is going to be a key technology that we can use. But it is my steadfast opinion that we can only do that if we continue to prioritize public health and safety. It goes without saying that we believe the bill we passed out of committee threads that needle.

I am honored to say that the committee has streamlined the nuclear regulatory process, while doing so in a way that will continue to ensure the highest level of public health and safety. Given the additional tools and authorities that we have provided to the NRC, I am so excited to hear about the agency's timeline for implementing this valuable legislation. The world can't wait.

I believe there is a real opportunity to drive down our emissions and to accelerate our clean energy transition through the increased use of nuclear power, but we need to do it in the right way. That includes the need -- and I am going to say it again -- for the development of a strategy to dispose of spent fuel. We cannot lose sight of the issue of

dealing with spent nuclear waste simply because we need this technology. We have to find a storage solution for nuclear waste that does not abandon the communities that host nuclear reactors, whether that way is through reprocessing, permanent storage, or some combination.

Right now spent fuel is stored at 75 different sites in 33 different states across the country, including 23 sites that are no longer operating. The Nuclear Waste Policy Act called for a permanent waste repository to be set up by 1998. Well, here we are in 2024. We still don't have a permanent solution. This needs to be the next frontier that this committee and all of us look at until we have a permanent solution.

[The prepared statement of Ms. DeGette follows:]

**********COMMITTEE INSERT**********

*Ms. DeGette. I look forward to the discussion we will have today, and I yield back.

*Mr. Duncan. The gentlelady yields back. I will now recognize the chair of the full committee, Mrs. Rodgers, for five minutes.

*The Chair. Thank you, Mr. Chairman. Welcome, Chairman Hanson and commissioners. It is good to have you before the committee today back again.

American leadership in nuclear technology is critical to our economic and national security. It is how we win the future with reliable, affordable, and clean energy to power our way of life, keep the lights on, build stronger communities, and achieve economic prosperity.

The Nuclear Regulatory Commission's safety mission serves as a critical role in the success of the American nuclear industry. Making sure NRC performs this mission to achieve the great promise of nuclear energy is your core mission.

Since you last testified before the committee in June of last year, Congress developed and enacted several important laws to help unleash the full benefits of American nuclear

energy. This committee led on passing legislation to eliminate reliance on Russian uranium and legislation to secure and build our own nuclear fuel industry right here in the U.S.

We also extended the Price Anderson Act for 40 years, ensuring long-term liability coverage for reactors, which is essential for revitalizing the industry and getting more reliable, affordable power into our homes and businesses.

And perhaps most relevant for today, the committee developed the Atomic Energy Advancement Act, landmark legislation signed into law earlier this month as the ADVANCE Act. This legislation will establish requirements and incentives to expand the use of nuclear energy, and has many benefits for the United States. It will drive a more efficient, timely, and predictable NRC licensing process which will encourage investment by reducing licensing costs for advanced technologies, and facilitate the deployment of innovative new nuclear energy technologies, from reactors to fusion to fuels and fuel facilities.

Taken together, these laws will strengthen our ability to compete globally and help power our future.

The ADVANCE Act takes significant steps to align NRC's mission with the policy of the Atomic Energy Act of 1954 to "make the maximum contribution to the general welfare, increase the standard of living, and strengthen free competition in private enterprise through the development, use, and control of atomic energy.'' With the ADVANCE Act, Congress spoke loud and clear about NRC's role. NRC cannot be a barrier to innovation and development.

A strong American nuclear industry is critical to U.S. energy security by helping us compete with Russia and China and meet our growing energy needs here at home. With this legislation, NRC now has the tools and direction from Congress necessary to unleash American nuclear energy and get back to its core mission. America already has the best operating fleet in the world. The performance and safety of our nuclear plants is unmatched, and there are numerous promising and advanced nuclear technologies that simply require NRC licensing approval to begin deployment.

This hearing is an opportunity for this committee to better understand how you plan to implement these new laws as Congress intended, and meet the urgency of the moment. A

robust and growing nuclear industry is critical for reducing emissions and providing reliable, affordable, clean energy to the American people. The Energy and Commerce Committee, in coordination with our Senate partners, has worked hard this Congress to come together on solutions to unleash America's nuclear energy that will improve people's lives and make our country stronger and more prosperous. I look forward to discussing next steps to ensure NRC is implementing the law effectively.

[The prepared statement of The Chair follows:]

**********COMMITTEE INSERT**********

*The Chair. I yield back.

*Mr. Duncan. The gentlelady yields back. I now recognize the ranking member of the full committee, Mr. Pallone, for five minutes.

*Mr. Pallone. Thank you, Mr. Chairman.

Nuclear energy is the single largest source of clean energy in the U.S., and it will continue to play a vital role in ensuring our grid is clean, reliable, and affordable as the clean energy transition continues. This Congress we have made critical bipartisan progress on important nuclear policies. We have taken several major actions, including passing the Russian uranium ban, the Nuclear Fuel Security Act, and the ADVANCE Act, and all of this builds upon the importance of support for nuclear energy that Democrats passed when we were in the majority.

And the Energy Act of 2020, the Bipartisan Infrastructure Law, and the Inflation Reduction Act all included historic investments in our existing and future nuclear infrastructure up and down the supply chain, and these investments are working. A lifeline from the Bipartisan Infrastructure Law will keep the Diablo Canyon

power plant in California alive and a loan from the Inflation Reduction Act is going to prove pivotal in restarting the Palisades nuclear plant in Michigan, which is going to bring back about 1,000 jobs to that state. And it was loan guarantees from the Department of Energy that were instrumental in getting two new reactors at the Vogtle site in Georgia across the finish line.

So I hope that committee Republicans are paying attention to how important these investments are, and will reconsider their effort to repeal the Nuclear Power Production Tax Credit from earlier this year. If we want the nuclear industry to grow and continue to provide clean baseload electricity, we can't go back on our word and repeal vital resources. And this is something Republicans should consider as they continue to push Project 2025, a blueprint for a potential second Trump Administration.

Trump's Project 2025 is a plan to consolidate power in the White House, gut checks and balances, and eliminate the independence of agencies like the NRC. It contains radical proposals that would gut the Department of Energy's ability to invest in the nuclear industry, calling for the

dissolution of the Loan Programs Office that has funded massive infrastructure projects, and dissolving the Office of Nuclear Energy. These proposals are not good for the deployment of clean and safe nuclear energy, and they are not good for the country. They are only good for radical ideologues pushing Trump's Project 2025, and it is the way for the extreme right wing to take total control over Americans' lives and freedoms.

Now moving to the Nuclear Regulatory Commission, I am looking forward to hearing from the commissioners on how they plan to implement the ADVANCE Act, which President Biden signed into law earlier this month. Democratic members of the committee led a number of important provisions in the law, including those to make it easier for the NRC to hire and retain staff, waive fees for developers of advanced reactors, and clarify fusion energy regulations.

Critically, the ADVANCE Act manages to improve the licensing process for advanced reactors without compromising on safety. And I want to repeat that: the ADVANCE Act does not -- does not -- alter the Commission's safety focus in any way whatsoever. The NRC has a longstanding commitment to

protect public health and safety, and that continues to be the case. Discussions of licensing advanced nuclear reactors in a timely fashion are important, but the improvements we made in the ADVANCE Act did not in any way impact NRC's core mission of protecting public health and safety.

I also want to note, as I have before with other commissions within our committee's jurisdiction that independent regulatory commissions work best when they are at their full complement of commissioners. Chair Hanson, I was pleased that the Senate recently reconfirmed you to a five-year term, but the NRC has been down a commissioner for over a year now. That is not good for anyone, and I hope the Commission can get, you know, back up to full strength some time soon.

And with that, I look forward, Mr. Chairman, to hearing more from the commissioners today on implementation of the ADVANCE Act and other critical areas within the NRC's jurisdiction, and I thank everyone here today.

[The prepared statement of Mr. Pallone follows:]

**********COMMITTEE INSERT**********

*Mr. Pallone. And I yield back the balance of my time, Mr. Chairman.

*Mr. Duncan. We will now conclude with the members' opening statements.

The chair would like to remind members, pursuant to the committee rules, all members' opening statements will be made part of the record.

They are going to call votes in about 30 seconds. We are going to try to get through the opening statements, but probably just going to get through Commissioner Wright. We will try to get all of them before members have to go. We are not going to miss votes, we have had some issues.

But I want to thank all the witnesses for being here today and taking time to testify before the subcommittee.

Each witness will have the opportunity to give an opening statement, followed by a round of questions from members. Our witnesses for today are the commissioners of the United States Nuclear Regulatory Commission: the Honorable Christopher Hanson, chairman; the Honorable David Wright, commissioner -- Go Tigers; the Honorable Annie Caputo, commissioner; and the Honorable Bradley Crowell,

commissioner. We appreciate you being here.

I am going to recognize Chairman Hanson for five minutes.

There is lights there, you know what they mean. I don't have to go through that. And so Chairman Hanson, you are recognized.

*Mr. Hanson. Yes, sir.

STATEMENT OF THE HON. CHRISTOPHER T. HANSON, CHAIRMAN, NRC; THE HON. DAVID A. WRIGHT, COMMISSIONER, NRC; THE HON. ANNIE CAPUTO, COMMISSIONER, NRC; AND THE HON. BRADLEY R. CROWELL, COMMISSIONER, NRC

STATEMENT OF CHRISTOPHER T. HANSON

*Mr. Hanson. Thank you, Chairman Duncan, Ranking Member DeGette, Chairwoman Rodgers, and Ranking Member Pallone, and distinguished members of the subcommittee. I appreciate the opportunity to discuss the U.S. Nuclear Regulatory Commission's fiscal year 2025 budget request, and update you on some of the agency's licensing, oversight, and rulemaking activities.

This coming January will mark the 50th anniversary. As we -- and as we approach this major milestone, the NRC remains committed to our -- to prudently licensing and regulating the civilian use of radioactive materials to protect public health, safety, and the environment, and to promote the common defense and security.

And as we look back on our past, it is incumbent on us

to rely on that tremendous amount of experience, then, to reimagine, in a sense, how we execute that critical mission to become more efficient in the execution of our duties and to confront the future for nuclear power in this country.

I would like to take just a moment. Thank you, Chair Duncan, for recognizing our nuclear regulator apprenticeship network class here in the back. This is a brand new class for us. This has been a highly successful program over the last few years in bringing new people into the agency, educating new regulators, and getting them embedded. Over the next 18 months they are going to experience all areas of the agency as they embark on their careers. And thank you, sir, for your encouraging words to them.

I would also like to take a moment to recognize our new executive director for operations, Mirela Gavrilas. Mirela has a -- is a long-time veteran of the agency, and over that time has demonstrated real leadership and creative thinking and true grit in the way she has approached her duties, and we all on the Commission look forward to working with her in her new role.

First I would like to thank you, Chairman Duncan and

Ranking Member DeGette, and indeed, the entire subcommittee for your leadership in passing the ADVANCE Act. Among its many important provisions, this bill will provide beneficial tools for the NRC's recruiting and retention efforts, and important budget flexibilities. The Commission greatly appreciates your support of the agency's work.

The NRC's fiscal year 2025 budget request is 995 million. The NRC proposes to use 20 million in carryover funds to offset the nuclear reactor safety budget, resulting in an adjusted gross budget authority of approximately 975 million. The NRC expects to recover 824 million from fees. This would result in a net appropriation of 151 million. The funding will allow the NRC to lay the groundwork for the next 50 years of nuclear energy regulation, while assuring the continued safe oversight of the 94 operating power reactors, 21 non-power production or utilization facilities, 23 reactor sites undergoing decommissioning, and numerous other facilities and materials users.

In a major effort, the NRC continues its work on a new, risk-informed and performance-based licensing framework. Known as Part 53, the new regulatory pathway will be

effective and flexible for a wide range of reactor designs. Further, the NRC is proposing a technology-neutral approach for a generic Environmental Impact Statement for new reactors to be issued for public comment in November. Both of these efforts are aimed at streamlining environmental reviews and safety reviews for future applications.

These preparations are important, but I want to emphasize that we have the capability to review new technologies now. In March the NRC published guidance to assist advanced reactor applicants with the use of existing pathways, and this is proving valuable. Recently, TerraPower filed a construction permit application for Natrium, its sodium-cooled plant near Kemmerer, Wyoming under our existing regulations. The NRC's reviews for this application are underway. And like the Kairos Hermes Construction permit approved last year, the agency will continue to build on its experience with every application.

These efforts and the agency's operating reactor oversight are made possible through NRC's Reactor Safety Program. The budget for 2025 for this area is $503 million. The operating reactor portion of this request is $420

million, and includes funds to review 3 initial license renewal applications and 5 subsequent license renewal applications. Resources will also support the review activities for one medical isotope facility construction permit, three non-power reactor construction permit applications, and two non-power reactor operating license applications.

The portion of the budget allocated for new activities is about 83 million. In addition to continued development of Part 53, this area includes pre-application funds for 5 new reactor designs and review funds for 2 new light-water reactor applications and 6 new non-light-water reactor applications.

As you can see, we have a lot of work ongoing. The budget also includes about 145 million for our materials program, and about 317 million for our corporate support.

In sum, the 2025 budget request allows NRC to focus on our mission and to prepare for future challenges. Thank you, and I look forward to your questions.

[The prepared statement of Mr. Hanson follows:]

534 **********COMMITTEE INSERT**********

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*Mr. Duncan. Mr. Chairman, you will have time to continue that with questions, I am sure. I will now recognize Commissioner Wright, a fellow Clemson Tiger and friend.

Welcome, David, and you are recognized for five minutes.

STATEMENT OF DAVID A. WRIGHT

*Mr. Wright. Thank you. Good morning, Chair Rodgers, Chairman Duncan -- Go, Tigers, Vice Chair Curtis, Ranking Member DeGette, honorable members of the committee. Thank you for the opportunity to appear before you today. And I would like to also associate my myself with the remarks that the chair gave to the -- to Chairman Duncan for welcoming our new employees. They are a really passionate bunch, and they are like sponges. They are a lot of fun to be around, and I look forward to following their careers.

I would like to start by thanking the committee for its tireless work over the last few years --

*Mr. Duncan. David, can you pull that mike just a little closer? Pull the mike a little closer. Thank you.

*Mr. Wright. All right. I would like to start by thanking the committee for its tireless work over the last few years on passing legislation that will help the NRC become a more effective and efficient regulator. This was made possible by strong leadership on both sides of the aisle.

I also want to recognize you, Chairman Duncan, for the important role you played in getting this done. You have been a great friend of mine over many years and, as a fellow South Carolinian, I appreciate all that you have done for our home state and for our country. What you and your colleagues have done will make a difference not just here, but around the world.

And of course, I want to thank my colleagues on the Commission and their staffs for their collegial approach to the work we have to do. We don't always agree, but our interactions are always professional and constructive. Together we have been able to tackle challenging issues involving advanced reactor licensing, security of radioactive sources, and physical security at our operating reactor fleet.

I am also grateful to the NRC staff, who I truly believe are some of the best and brightest minds in the Federal Government.

I would like to focus my remarks today on improving the efficiency of the NRC.

On July 9 the President signed into law the Accelerating

Deployment of Versatile, Advanced Nuclear for Clean Energy, or ADVANCE Act. The ADVANCE Act was passed with overwhelming bipartisan support in both chambers. The ADVANCE Act sends a clear signal to the NRC by directing us to update our mission statement to include efficiency in our licensing and regulatory actions. The Act also directs us to provide guidance to the NRC staff on how to implement the new mission. This important step will ensure that we are responding to Congress's direction with actions and not just words.

When I testified before you last year I said that we needed to enable, not disable, the safe use of nuclear technology. I believe the ADVANCE Act is saying the same thing. It directs the NRC to regulate in a way that does not unnecessarily limit the deployment of nuclear energy or the benefits of nuclear energy technology to society. We have to perform our vital safety mission, but we can't be a barrier to new technologies that will benefit the American public. I look forward to continuing to work with my colleagues on implementing the policies we need to enable the safe use of nuclear energy and nuclear technologies.

And I would like to close on a personal note. Chairman Duncan, you will be retiring at the end of this term, and I wanted to take a minute to acknowledge your seven terms in the House. As I said in my opening remarks, you have done our home state proud. Your public service at every level has made a difference, and I wish you the best of luck going forward. You are my friend.

Thank you for the opportunity to be here, and I look forward to your questions.

[The prepared statement of Mr. Wright follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. Thank you, Commissioner.

Unfortunately, as you see, members are already leaving to go vote. They are adhering to a 20-minute rule and -- plus or minus. So we are going to have to come back. And I want the members to have benefit of all of your testimony before we get into that, so I think it is best we will stand in recess, and we will come back immediately following the last vote, as soon as the ranking member comes back. So 10 minutes, but we are going to get started as soon as we have the available committee members here.

With that, we will stand in recess.

[Recess.]

*Mr. Duncan. All right. I will go ahead and call the subcommittee back to order.

And Commissioner Caputo, you are recognized for five minutes. Hopefully, members will come in because I really want them to get the benefit of all the testimony. But in the essence of time, you are recognized for five minutes.

Let's cut the mike on. There you go.

[Pause.]

STATEMENT OF ANNIE CAPUTO

*Ms. Caputo. Thank you. Thank you, Chair Rodgers, Subcommittee Chair Duncan, Ranking Members Pallone and DeGette, and members of the committee for holding this important hearing. I have fond memories of my service to the members of this great committee, and am pleased to come before you today.

Reliable, affordable, and clean energy is the lifeblood of the economy. With baseload generation retiring at the same time electricity demand is accelerating, there is a rising need for clean, affordable, and reliable energy. Congress has shown bipartisan recognition that nuclear energy must play a growing role in meeting our energy security needs.

With passage of the ADVANCE Act Congress has called on the NRC to be more efficient, predictable, and timely. It is incumbent upon us as commissioners to ensure agency leadership and staff recognize and earnestly implement this new direction from Congress.

In focusing on the day-to-day work of our safety and

security mission, it can be easy to lose sight of the larger changing landscape and how we as an agency fit into a much bigger picture. While several companies are in pre-application engagement with the agency, only a few applications are currently under review. This is sure to change as momentum for nuclear energy deployment grows. The scope and pace of this change may be dramatic, and we must be prepared. Therefore, we must strive to improve our performance not simply measured by safety, but also by the efficient and timely completion of our work. We must focus on mission execution, improve the agency's agility to respond to change, and make effective and efficient decisions, and demonstrate results.

When Congress established the NRC, licensing was the only specifically enumerated function. Today, while the agency remains diligent in its oversight and inspection work, licensing reviews are a small portion of the agency's activities. Over time, related regulatory functions have come to dominate our operations, resulting in delays in some licensing reviews due to a lack of staff resources. The agency must prioritize effective and efficient licensing and

afford it proper management attention.

Improving the agency's agility is a growing necessity. We know that change is coming, but we aren't quite sure when it will come or what it will look like. The best approach is to cultivate the agency's ability to adapt quickly to evolving industry plans and licensing needs. Our workforce is our greatest asset. We need to help them develop into a flexible team that can be utilized for a range of applications as the workload changes. We must maintain external awareness, but also recognize the likelihood of ongoing change and be prepared to adapt.

Applicants need regulatory predictability and stability. Our regulations should be coherent, logical, and practical. Our decision-making should be objective, transparent, and timely. If decisions are consistently applied by the staff, reviews will become more efficient and predictable, improving the reliability and stability of the licensing process. We as an agency need to set clear and aggressive but achievable goals in workload execution and use meaningful metrics to guide performance improvement. Accordingly, Commissioner Wright and I have proposed such an approach to our

colleagues.

The ADVANCE Act also set an expectation for the agency to maximize the efficiency of our oversight and inspection programs. With over 20 years of experience with the reactor oversight process, I expect there are opportunities to adapt inspection efforts to more closely align with safety significance and better reflect the industry's improved safety performance.

In order for the agency to successfully navigate the future and meet Congress's expectations, we must cultivate results-driven leadership. We need leaders who can implement and sustain change, leaders who can effectively execute enterprise risk management, responsible budgeting, strategic workforce planning, knowledge management, and workload management.

In conclusion, our country's growing need for electricity is going to require significant new generation, and the ADVANCE Act makes a clear -- makes clear the compelling need for the NRC to become more efficient, predictable, and timely in its licensing decisions amidst significant changes in the nuclear energy landscape. The

agency must reassert the importance of licensing as principal to our mission, and improve our agility in responding to landscape changes.

I look forward to working with my colleagues to set clear and aggressive but achievable goals, to embrace the use of metrics to guide performance improvement, and to hold ourselves accountable for results. Our principles of good regulation state the American taxpayer, the ratepaying consumer, and licensees are all entitled to the best possible management and administration of our regulatory activities. Going forward, I hope this committee will hold us accountable, too, through continued oversight. Thank you.

[The prepared statement of Ms. Caputo follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. Amen, and well worth the wait.

Commissioner Crowell, you are recognized for five minutes.

STATEMENT OF BRADLEY R. CROWELL

*Mr. Crowell. Chair Duncan, Ranking Member DeGette, and members of the subcommittee, thank you for the opportunity to appear before you today to offer testimony on the NRC's fiscal year 2025 budget request.

I appreciate joining my colleagues, my Commission colleagues, to discuss the important work of the NRC and how we are tackling and, in fact, embracing the challenges facing the agency. Indeed, I see these challenges not as obstacles, but as opportunities for the agency to execute its mission while meeting the expectations of Congress, our licensees and other stakeholders, and the public.

Chair Hanson and my Commission colleagues have highlighted notable NRC accomplishments from the previous year, but also the considerable workload currently before the agency. This workload is expected to steadily increase in fiscal year 2025 and beyond, as our nation's energy needs continue to grow and the demand for carbon-free baseload power increases. This growing demand and commensurate workload reflect the significant advancements in nuclear

technologies in recent years, including both fission and fusion technologies. With direction and support from Congress, including the recently-enacted ADVANCE Act, the NRC has already begun putting the regulatory structure in place to keep apace with these advancements.

As we approach the 50th anniversary of the NRC, the agency has a unique opportunity to help address some of the most challenging and pressing issues facing our nation today. While reducing carbon emissions and enhancing energy security obviously come to mind, there are many other policy objectives where the safe application of new nuclear technologies has the potential to result in significant benefits for our collective well-being, including applications in nuclear medicine and agriculture, to name a few.

In addition to reviewing and licensing new nuclear technologies, the NRC must also ensure our nation's current fleet of nuclear reactors continues to meet established safety and security standards. As the regulator for the safe and secure use of nuclear technologies, the NRC is committed to meeting our responsibilities such that the public can have

full confidence that all NRC licensees operate in a manner that minimizes risk and maximizes safety. Notably, we must also execute this mission today and in the years ahead in the context of an increasing complex global, geopolitical environment.

With adequate resources for the agency and with clear, consistent leadership from the Commission, I believe we can achieve many great things. I am confident the NRC staff is up to the challenge. However, to harness this momentum the NRC must build and maintain public trust through proactive and meaningful engagement with all stakeholders. Trust is hard to gain, but easy to lose. In this regard the NRC must better engage with individuals and communities unfamiliar with our agency and how our mission touches their daily lives. We must recommit to using plain, understandable language, and leverage communication channels common to those who don't have the luxury of time or the responsibility to understand nuclear physics and engineering.

Indeed, the inherent complexity and historic concerns associated with nuclear energy necessitate establishing a high degree of public confidence in the Federal Government's

ability to safely manage the full nuclear fuel cycle. For the NRC this means fully integrating both the front and back ends of the nuclear fuel cycle into our regulatory decisions, oversight, and research activities, and effectively communicating our actions in each of these areas to the public. Our shared constituencies deserve confidence in knowing both Congress and the executive branch are dedicating commensurate focus on issues including used fuel management, decommissioning, and waste disposal.

Workforce transformation will also be critical to our collective success. The NRC must retain and recruit talented staff with diverse skill sets. This is essential for managing the agency's increasing workload, and to reestablish a culture at the NRC that consistently ranks among the best places to work in Federal Government. Filling key senior career leadership positions is vital to this effort. We have made recent progress, including filling positions such as general counsel, chief financial officer, and, as you have heard, a new EDO, the highest ranking career officer -- official at the NRC.

But there is more to be done. I am proud of the recent

progress made on all these topics mentioned today, but we have work to do, and there is no margin for delay. We owe it to the NRC staff who work hard every day to keep apace in the growing -- in the face of growing demands and pressures, both internal and external. I intend to do my part to fulfill our obligations to our workforce as we navigate the challenges and opportunities ahead for the NRC. We owe it to our employees, but also to the public for whom we serve. The fiscal year 2025 budget request is an important next step to ensure the NRC has the resources necessary to meet this pivotal moment.

Thank you. I look forward to your questions.

[The prepared statement of Mr. Crowell follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. I thank you all for your testimony. We will now move into the question-and-answer portion of the hearing, and I will begin the questioning to recognize myself for five minutes.

Since we met in June last year, Congress took the most significant action relating to NRC in several decades and enacted the ADVANCE Act. This new law aims to pave the path for a resurgent nuclear industry which is critical to meet huge energy demands. Chair Hanson and commissioners, would each of you briefly tell us what you believe the ADVANCE Act signifies?

*Mr. Hanson. Thank you, Mr. Chairman, and thank you again for your leadership on the ADVANCE Act.

For me, the ADVANCE Act represents several things. First of all, it represents a reiteration, I think, of a conversation that this Commission has had with this committee for some time about the need to be more efficient in the execution of our mission and responsibilities at the NRC. But I think it is also a recognition of the things that we have accomplished to date in terms of rulemaking and policy-setting. And I appreciate that affirmation. It is also an

endorsement and an encouragement by giving us additional tools and flexibilities to move confidently into that future and confront the increasing workload that we have. And so I guess I would kind of focus on those three things.

*Mr. Duncan. Mr. Wright?

*Mr. Wright. Thank you for the question, and I am going to concur that efficiency is the -- one of the big things that we have to make throughout the whole agency. We have got to make it. It has got to -- we have got to drive the message all the way down.

We have got -- this is a new day. We have got new technologies that are coming, we have got to give them every opportunity to get to market while we protect that strike zone of safety over home plate. And we will do that. And so it is about us changing the culture, changing the way we think, and it is up to us as commissioners to model that and to demonstrate that this is how -- this is what we believe, we are listening to those who are our stakeholders, and including the Congress, and that we are going to manage that down.

*Mr. Duncan. Thank you.

Commissioner Caputo?

*Ms. Caputo. This agency has seen remarkable change a number of times: in the late 1990s; and then with the renaissance starting in 2007; and obviously, post-Fukushima. And now we are facing a great era of change with, excuse me, advanced reactors and new designs coming.

To me, the ADVANCE Act is a recognition that we need to improve our performance and the recognition that, while safety is our primary goal and we are gatekeepers of the safe use of nuclear energy, we need to make sure that we are not a choke point, that the nation needs nuclear energy generation, and we need to ensure that we are embracing the efficiency and efficient decision-making necessary to enable those technologies to market.

*Mr. Duncan. Yes, thank you.

Commissioner Crowell?

*Mr. Crowell. Thank you, Mr. Chair.

In recent years Congress has passed a number of incentives and support mechanisms for nuclear power. I see the ADVANCE Act as giving the NRC the tools to meet the expected demand that is going to come for nuclear regulation

from those earlier incentives, and I think it is going to make a huge difference for us going forward in being efficient while maintaining our safety case.

*Mr. Duncan. Yes, thank you for that. You understand that Congress would not have directed you, the commissioners, to update the NRC's mission statement to align with the goals of the Atomic Energy Act if it thought the NRC was effectively performing its mission. I think I heard "effectiveness'' and "efficiency'' coming out of your mouth, so that was great.

Chair Hanson, does the Commission staff understand what Congress wants from the NRC in terms of mission performance?

*Mr. Hanson. Well, I think it is incumbent on the Commission to make sure that the staff understands both what we expect as a Commission, but also what the Congress expects of us. We are accountable to you and to the American people. The staff are accountable to the American people, and they are accountable to us.

And so I hope that we have, through the course of our actions, through votes, and also through our words expressed that expectation to the staff. But if they don't, then we

will keep working on it and make sure they do.

*Mr. Duncan. What are you telling staff leadership and managers about Congress's expectations from the updated mission?

*Mr. Hanson. Well, Chairman, thank you. At our regulatory information conference last spring I said from the stage that reflexively doing things the way we have always done them is not going to work any more at the NRC, and that I expected managers at all levels of the agency to look at the why of our processes and find ways to become more efficient and more effective in our mission.

And I have reiterated that message. I know my colleagues have similar messages that they have reiterated to the staff, and we are watching execution of key projects closely, and becoming -- and intervening where we think the staff is not being as flexible or efficient or innovative as they could be, you know, across all levels of the agency.

*Mr. Duncan. Yes. Well, thank you. My time has expired. We are watching, and I am going to have some additional questions for you guys I am -- that I have. I am going to submit them maybe to the chair, maybe to the other

commissioners. I just ask you to respond to those.

[The information follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. I now recognize the ranking member for five minutes.

*Ms. DeGette. Thank you very much, Mr. Chairman.

Chairman Hanson, I spoke in my opening statement about the potential for nuclear energy development to help decarbonize our energy grid. I am wondering if you can comment briefly how you think the ADVANCE Act can help us towards that goal.

*Mr. Hanson. Thank you, Ranking Member DeGette.

There are a number of provisions, I think, in the ADVANCE Act: the fee relief provisions for advanced reactors, the provisions on microreactors, et cetera. And this is where a lot of innovation is happening. New technologies are being considered for kind of what maybe is alternative use cases historically, so not just power generation to the grid like we see, big power plants, but smaller applications, heat, et cetera. So I think there are a number of ways in addition to the workforce provisions --

*Ms. DeGette. And as Commissioner Caputo said, you don't want to be a bottleneck --

*Mr. Hanson. Right.

*Ms. DeGette. -- as you are looking at all these new --

*Mr. Hanson. We don't want to be an impediment.

*Ms. DeGette. That is right.

Commissioner Crowell, I am wondering, speaking about workforce, if you can talk to us about how the workforce tweak in the legislation will support the NRC's overall mission.

*Mr. Crowell. I think the new hiring authorities are going to be a great benefit to bringing in talent that we need and allow us to better compete with the private sector for the skill sets.

I also think that the workforce trainee programs that were established in the ADVANCE Act are going to complement our grant programs to make sure that those investments in universities translate into the next workforce for the NRC.

*Ms. DeGette. Great, thanks.

Commissioner Caputo, I am wondering if you have a sense yet -- or anybody, really, could answer this -- about what kind of timeline you think it is going to take to fully implement the requirements in this Act. And what actions is

the agency taking right now in the interim?

*Ms. Caputo. I think right now there is a fair amount of digesting it going underway. We have had a memo from the general counsel on specific requirements. I think some of the budgeting provisions are probably being looked at immediately. It will take some time, I think, to implement some of the other programs like a review of our oversight and inspection. So I think the timelines for some of these will play out over varying periods of time.

What I hope to see is a note in leadership and a change in tenor in terms of embracing and recognizing the need for change, and modeling that through our leadership. So that, I think, will be one of the earliest indicators that I am looking for.

*Ms. DeGette. Great. I am wondering, Chairman Hanson or anybody, if you can talk about what the NRC is thinking about in terms of addressing the issue that I had raised in my opening statement about nuclear waste storage or disposal, because I think, truly, as we move towards a greater proportion of our energy mix being nuclear, we are going to have to deal not just with the waste that we have sitting all

around now, but the future. So I am wondering if you can comment on that.

*Mr. Hanson. Yes, thank you, Ranking Member DeGette. So the NRC's role is really to ensure the safe and secure use of nuclear waste, whether it is, you know, low-level waste or whether it is the higher activity things and spent fuel, whatever forms those take. And so it is incumbent on the agency to have the regulatory systems in place to ensure storage.

The NRC also has a role in licensing and ensuring the safety of any deep geologic repository or any other kind of ultimate disposal system. But fundamentally, that responsibility for developing that system lies with the Department of Energy. So we are going to continue in our safety mission for the monitoring, storage, transportation, et cetera of spent fuel while the nation works out a permanent solution to the waste.

*Ms. DeGette. And you think that -- are you coordinating with the DoE on these ideas and issues?

*Mr. Hanson. We are certainly monitoring --

*Ms. DeGette. Right.

*Mr. Hanson. -- what they are coming up with, and we want to understand their plan so that we can be ready to license that if the time comes.

*Ms. DeGette. Yes, yes, that would be important. Okay. Well, thank you very much, and thanks for all the work you all do. I appreciate it.

I yield back.

*Mr. Duncan. The gentlelady yields back. And I would be remiss if I didn't mention that it was her language on the workforce development that was in the ADVANCE Act, and I appreciate her work on that because I am hearing the need for that. So I want to thank her.

I will now go to Mr. Walberg for five minutes.

*Mr. Walberg. Thank you, Mr. Chairman, and thanks for the Commission -- to the Commission for being here.

Since you last appeared before us, Palisades in Michigan continues to take action. Some exciting things have taken place between the DoE and Michigan -- the State of Michigan itself: the decommissioning restart, which maybe we should call "recommissioning''; Holtec and Palisades have made tremendous progress with a long-term purchase agreement now

in place; a promise of more generation, which we certainly need; and then 600 high-paying jobs coming back to the area. That promise of opportunity is great.

This may be a new and novel situation for staff, but we are dealing within a well-known unit, a well-known design, and well-characterized site with Palisades. Chair Hanson, what is the status of this recommissioning effort?

*Mr. Hanson. Yes, thank you, Congressman Walberg.

We are -- at this point Holtec has submitted all of the regulatory filings that they need to do. Those are under review. We expect to reach a decision on those filings in about May of next year. I understand they have a plan to restart the plant in August of 2025, and my understanding is so far that those reviews are going well, the staff has shown some flexibility with that, and that Holtec is currently satisfied with the progress we are collectively making there.

*Mr. Walberg. Okay, so we can be reasonably certain that within 24 months this process could be completed?

*Mr. Hanson. I would hope that, from our side, at least, on the regulatory issues that we have got or -- we are going to be done in less than a year.

*Mr. Walberg. Even more quickly.

*Mr. Hanson. And then they can proceed with the kind of physical issues and restarting the plant.

*Mr. Walberg. Hearing that, do you see this as a test for performing with revitalized licensing efficiency in keeping with the ADVANCE Act? Is this going to be ongoing?

*Mr. Hanson. I do, I think this is something we have never done before, we haven't seen much of in the United States, and it has required some creativity on both our part and Holtec's. And as a learning experience, I think it is very good and right in line with the ADVANCE Act.

*Mr. Walberg. Super. NEI reported last year that over half of nuclear utilities are exploring power uprates, which could provide over two additional gigawatts of clean baseload energy in the next decade. The growth in demand for power from AI and data centers is increasing the prospects of a slew of uprates, and I guess the concern we have is a bit of lacking in confidence, from what we have heard on uprate preparation, for NRC. So this question comes. This means more uprate and license renewal applications submitted to the NRC. We have already heard about the staff falling short on

planning for license renewals.

To anyone on the panel, given this experience, what confidence do we have that NRC can manage a growing uprate workload?

*Mr. Hanson. Congressman, the staff is -- has reconstituted the group that performed a lot of the power uprates before, and is relooking at those processes. They have held a couple of public meetings with industry to understand the change in the landscape there. But I think this is another opportunity for the Commission to articulate our expectations of the staff to leverage the tremendous amount of historical knowledge that we have to make this process much, much more efficient going forward.

*Mr. Walberg. Any other response?

*Ms. Caputo. Historically, there were a lot of power uprates done 15 to 20 years ago. The agency doesn't have fresh practice. The last one, I think, was close to 10 years ago. So the reconstitution of the team is important.

I think one of the things that we should strive for, though, is the earlier batches of power upgrades were executed with a timeframe of 6, 9, and 12 months, depending

on the intensity of the uprate request. And I think, over time, the efficiency of those decisions lagged and the timeframes were extended to 9, 12, and 18 months. I think we should be able to return to those original timeframes, depending on the nature of what the agency -- what the industry is looking to execute.

There is a lot of technology that has been put in place since then, and I think there is a lot of room for efficiency improvement, so I am hoping for leadership to manage that and set expectations for efficient reviews. The more efficient the review is, the easier it will be to manage the resources as these applications come through.

*Mr. Walberg. Well, the new AI capabilities might assist in that, as well, in --

*Ms. Caputo. Possibly.

*Mr. Walberg. Yes.

*Ms. Caputo. I think, as a safety agency, we are a little cautious about how we should be looking to use AI. I think it can supplement decision-making --

*Mr. Walberg. Sure.

*Ms. Caputo. -- and potentially save time, but I think

we are all pretty focused on making sure that we are completely confident in the decision --

*Mr. Walberg. Security and time.

*Ms. Caputo. -- at the end of the day, as well.

*Mr. Walberg. Well, thank you.

*Ms. Caputo. Thank you.

*Mr. Walberg. My time is expired. I have more questions --

*Mr. Duncan. The gentleman yields back.

*Mr. Walberg. -- we will turn in.

[The information follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. I now recognize my friend from California, Mr. Peters, for five minutes.

*Mr. Peters. Thank you, Mr. Chairman. Thanks for having this hearing.

Thanks to the commissioners for coming to speak with us today and for your work regulating a critically important domestic energy source. I think you are going to hear some of the same themes throughout the day, so you probably feel like we are honing in on the issues here.

The ADVANCE Act, which was recently signed into law, included several provisions with -- from my bill with Representative Carter, the Global Nuclear Energy Assessment and Cooperation Act, and my bill with Dr. Bucshon, the Advanced Reactor Fee Reduction Act. These bills, we hope, will supercharge the domestic nuclear energy by reducing NRC application fees, by identifying nuclear energy supply chain risks, facilitating the import and export of advanced reactor technology, and by ensuring adversarial nations are not able to purchase nuclear fuel. Unfortunately, a key aspect of the Global Nuclear Energy Assessment and Cooperation Act, which would have authorized DoE to train foreign experts, energy

experts in allied countries, was ultimately removed.

As we have noted, a third of the NRC's employees are above the retirement age. If we fail to invest appropriately in the nuclear workforce, then the NRC will be significantly under-staffed far into the future. And we need to address the serious problems facing our grid such as significant load growth, extreme weather, and cyber or physical threats. And I want to say that it was a good symbol that you brought out all the young folks who are with the agency now, and I think you understand we are excited to see people interested in public service and helping us out with this.

I often say the grid is small, old, and dumb, and I do believe that nuclear energy can play a strong role in helping it make it bigger, newer, and smarter. We have a lot of work to do.

Chairman Hanson, under current NRC guidelines -- this is a permitting question for you, really -- nuclear power plant site characterization takes over 24 months because measurements of weather and seismic data need to be recorded by the applicant themselves. But Federal agencies have extensive databases of weather and seismic data already

available. Is there a way we could incorporate that data to identify where new measurements are redundant, so that we don't have to slow things down as much as we sometimes do?

*Mr. Hanson. Yes, Congressman, thanks for the question. I think we can be flexible in this area. And the requirement on the 24 months of kind of real-world data is something that exists in our guidance. And as such, it is not a formal requirement, it is one way to kind of meet our requirements.

And therefore, companies that want to come to us with an alternative either from other government databases, or WeatherBug, or what have you about weather and other kinds of site information, I think we can and should be open and flexible around that.

*Mr. Peters. Okay, I hope you will be. And if there is something -- authority you need from us that -- I hope we are able to do what we can. As you can tell, the committee is very interested in promoting the development of this industry, and we want to be helpful.

*Mr. Hanson. Indeed.

*Mr. Peters. Just an issue on waste, it continues to be a problematic piece in the puzzle. How do we ensure

communities and environments are safe as more plants are decommissioned?

Of course, we are a neighbor of the San Onofre plant. I am a skeptic of the consent process because I think it is hard to cite, you know, housing developments, let alone nuclear waste disposals. Tell me how you think that is going, and, you know, and what do you think we could do to make sure that folks are safe, continue to be safe?

*Mr. Hanson. Yes, thank you.

We have a rigorous inspection and oversight process as plants decommission, and particularly for all of the radiological operations. So think of those big potentially contaminated components that need to be removed from the site and sent to low-level radioactive waste disposal, as well as the storage of spent fuel.

I think one of the key things for us is -- and Commissioner Crowell had this exactly right about the public engagement -- engaging community panels and local oversight boards about what we are doing, how we are doing it on a day-to-day basis, and the rationale for that, and help people understand our standards.

*Mr. Peters. I do want to compliment you for the information you have got out around San Onofre. I think there is a, you know, general understanding that it is safe today. At the same time, it is not going to be safe forever. And I just would say that there is a real sense of urgency for that site, which is near a military base near the water, near a large population, that we find a permanent place for it, and I would love to be helpful with that.

Finally, you have launched successful programs to introduce people from all backgrounds to the NRC. Some of them are in the back today. How can this be expanded to fill positions, including potentially educating folks from abroad?

*Mr. Hanson. Yes, thank you, Congressman. We do educate folks from abroad now. We have what we call foreign assignees to the agency, people that we are cooperating with, particularly countries that are considering American technology. So I think our fellow regulators from Poland or Romania and other -- you know, Canada, places like this, where we are cooperating closely and they have a chance to come in and see what we are doing --

*Mr. Peters. Okay.

*Mr. Hanson. -- I think we also benefit from close cooperation on regulatory issues with our Canadian friends --

*Mr. Peters. Good.

*Mr. Hanson. -- understand their insights, et cetera, so --

*Mr. Peters. Thank you.

My time is expired, I yield back.

*Mr. Duncan. The gentleman yields back. I now recognize the chair of the full committee, Mrs. Rodgers, for five minutes.

*The Chair. This is an exciting time for American nuclear innovation. The changing energy landscape is accelerating the deployment of nuclear in innovative ways for power generation, for manufacturing, and to support infrastructure necessary for our information age. And there is no time to waste, as power demands are increasing at a rate up to 10 times greater than the rate of the past decade. NRC indisputably performs a vital safety mission. In its role it can either enable or hinder nuclear deployment. So NRC's performance is essential for America's nuclear leadership.

When you were before the committee here last year we talked about performance metrics. Since then Congress has enacted new requirements for measuring performance that were included in the ADVANCE Act. Chair Hanson and commissioners, would each of you briefly describe your views on measuring the performance of the Commission?

And I will begin with you, Chair Hanson.

*Mr. Hanson. Yes. Thank you, Chairwoman Rodgers, for your question.

I think it is important to have a set of high-level metrics and expectations for the agency. Certainly, we had -- we have seen those that were codified in the Nuclear Energy Innovation and Modernization Act. And then, of course, the revision of those here in the ADVANCE Act is quite helpful, it gives us a baseline. For example, with the TerraPower review, the baseline metric for that construction permit review is 36 months. Our schedule is 27 months for that. So that tells us where we are exceeding those metrics, et cetera.

*The Chair. Okay, thank you.

Commissioner Wright?

*Mr. Wright. Thank you for the question. So metrics are important. And last year, as you know, and you referred to earlier, Commissioner Caputo -- I think Commissioner Caputo referred to it earlier -- that we issued a joint COM on this.

Historically, the agency has not done a very good job of setting goals and even stretch goals beyond that. So it is important that we understand those things that we can use that are really good in helping us know if we are doing a good job or not.

*The Chair. Yes.

*Mr. Wright. So we need to set those metrics, and we have a COM that addresses that.

*The Chair. Thank you.

Yes?

*Ms. Caputo. The metrics that were introduced in NEIMA and again revised in the ADVANCE Act, I think, are incredibly important.

I do think, as far as the agency functioning and improving its performance, they are a little coarse. I think we need to have more detailed performance metrics that enable

us to see how our progress is going according to what our plans are, and that we need to be incredibly detailed about that, and public and transparent about our progress. It is important for the confidence of the applicant. It is also important for stakeholders to view those schedules as reliable and gain confidence in our ability to execute.

*The Chair. Thank you.

*Mr. Crowell. I agree with my colleagues on the importance of metrics, and I think the ADVANCE Act gave us direction on a number of those metrics, and we need to look at what additional types of metrics we should institute.

I would note that metrics and goals are only achievable as the workforce we have to execute the mission, and so we need to make progress on our hiring and workforce efforts in order to meet those metrics.

*The Chair. Okay, thank you.

In August last year Commissioners Wright and Caputo issued a voting paper for the Commission to direct NRC staff to implement real-time performance metrics. To our knowledge, no action has been taken on that.

Chair Hanson, what is the status of that matter, and why

has there not been more of a priority placed on measuring performance?

*Mr. Hanson. Sorry. Thank you, Chairwoman Rodgers. It is still -- it is currently pending before the Commission. Both Commissioner Wright and Commissioner Caputo's comm, as well as a similar COM issued by former Commissioner Baran, in terms of setting high-level expectations.

I can speak for myself not exclusively as chairman. I have been focused on setting the policy through papers, and I think -- and I have had some questions about it, and I am working through that. I expect to vote that soon for myself, because I do agree with my colleagues that setting expectations is important.

*The Chair. Okay. I have more questions, but I am going to run out of time so I will follow up or try to get some -- get them answered.

Okay, Commissioner Caputo.

*Ms. Caputo. I would just note that, even though this is a voting matter pending before the Commission, the leadership of the agency could establish metrics on their own, and design those and implement those to begin tracking

this information, and that could potentially be one indicator of their recognition and embrace of the ADVANCE Act.

*The Chair. Okay, thank you.

I yield back.

*Mr. Duncan. The gentlelady yields back. I will now go to Mr. Tonko for five minutes.

*Mr. Tonko. Thank you, Mr. Chair. I congratulate you and Ranking Member DeGette on the enactment of the ADVANCE Act. It is a great bipartisan accomplishment, and I believe supporting the next generation of nuclear reactors will indeed be critical to our future energy mix.

And thank you to the chair and commissioners for your testimonies this morning and your work.

In the past several years, as Congress has debated broader permitting reform, it has become abundantly clear that successful energy projects must be built based on early and robust community engagement. So Mr. Chair, what do you see as the role for engagement with the communities that host reactors?

And how does the Commission help ensure license holders are good partners with their hosts?

*Mr. Hanson. Thank you for that question, Congressman Tonko.

I think the public communication and engagement aspect of our mission is critically important, and I think one, I think, recent positive example is the TerraPower project out in Kemmerer, Wyoming. There have been numerous public community meetings there, where the agency has gone out to communicate with the public about our role in that project, et cetera, and about -- quite outside of the National Environmental Policy Act framework, the importance of that, people understanding our role, why we make decisions, et cetera.

I don't -- yes.

*Mr. Tonko. Thank you.

Yes, sir, Commissioner.

*Mr. Wright. If I might add, you know, one of the things I think that the NRC staff does very well is communicating. I think we do it better than anyone, anywhere.

And the fact that we are spread out -- we have four regional areas, as well as the headquarters here -- the

people know the area where they live. They know the people that they support, and that they back up, and that they inspect, and those communities trust those people, right? They trust our people there. So I think we really do a really good job there, and I am really proud of them for that.

*Mr. Tonko. Thank you, I appreciate that.

So with advanced reactors, it is my understanding that many potential developers are envisioning much smaller designs with more numerous deployments. Compare that to our existing reactor fleet, which are large and visible to local communities. So Mr. Chair, how is the Commission thinking about the need for ample community engagement processes for smaller advanced reactors?

And do you envision that there will be different local consultation requirements compared to the existing reactor fleet?

*Mr. Hanson. I am not sure that substantively, Congressman, that it is going to be very different, right? We still have a responsibility to explain to folks as best we can about the technology, about our processes for evaluating

that, and how -- and why it is safe, even if that facility may not be, as you say, as visible in the community. It is still there, and it is important for folks to understand that there is a stand-in for the public on the technical side, which is the NRC, to ensure the ongoing safety and security of that facility.

*Mr. Tonko. Okay. One potential win-win scenario is to redevelop brownfield sites or retired fossil fuel generators for advanced reactors. Many of those sites have access to valuable existing infrastructure, and the communities may be more likely to accept a new power plant if it indeed is replacing an old one. The ADVANCE Act requires the Commission to evaluate the barriers that may exist to reusing these types of sites.

Mr. Chair, I don't want to ask you to pre-judge the outcome of this review, but generally do you believe there is a good opportunity for advanced reactors at brownfield and former fossil fuel generation sites?

*Mr. Hanson. Yes, I do, and there are areas where we can leverage the existing infrastructure or the existing experience at that site then to help make the review of the

new technology deployment at that site more efficient.

*Mr. Tonko. Do any of the other commissioners want to weigh in on that?

Yes, sir.

*Mr. Crowell. You know, I would add to that that -- sorry, I lost my train of train of thought.

Annie, go ahead.

*Ms. Caputo. I think it makes a lot of sense, just given the nature of the workforce, given the connection to the grid, the prevalence of environmental data. So it wouldn't surprise me at all if that becomes a very smart business decision for companies. So I would expect that we would review that as efficiently as we could, harnessing whatever data has previously been available.

*Mr. Tonko. Thank you. And --

*Mr. Crowell. Mr. Congressman, just --

*Mr. Tonko. Oh --

*Mr. Crowell. Here is my thought. Your direction and the Congress's direction in the ADVANCE Act to work with other Federal agencies on this is going to be critically important, because otherwise we are going to duplicate work.

So that is -- that interagency effort is going to be important.

*Mr. Tonko. Okay, thank you.

And Commissioner Wright?

*Mr. Wright. Yes, sir. And I have a previous background as a public utility commissioner, which is an economic regulator. So the use of brownfield sites, when you get to the bottom line of who is going to pay for it, the ratepayer, this is a really good deal for them. And I think it is important and it is exciting, what these advanced reactors might be able to do.

*Mr. Tonko. Okay, thank you, each and every one of you.

And with that, Mr. Chair, I yield back.

*Mr. Duncan. The gentleman yields back. I will now go to Mr. Palmer for five minutes.

*Mr. Palmer. Thank you, Mr. Chairman. I really appreciate the opportunity to have this discussion.

One of my concerns is how we have fallen behind China -- and Russia, for that matter, but particularly China. China is considered a leader in the development and launch of small modular reactors. It is estimated that China likely stands

10 to 15 years ahead of the U.S. in its ability to deploy advanced nuclear reactors at scale. And I just wonder if that is a big issue with you, and I address that question to each of you because you are all with the Nuclear Regulatory Commission. Is that -- do you consider that an issue, a problem?

*Mr. Hanson. Congressman, I guess a couple of thoughts about that.

From a regulatory standpoint, I don't see a lot of transparency in the Chinese regulatory system, so --

*Mr. Palmer. That is not what I am asking, though.

*Mr. Hanson. I am sorry.

*Mr. Palmer. The problem here is the regulatory regime in the U.S. is holding us back. And it is not an issue of whether or not China is abiding by the same regulations, it is a matter of whether or not we use the technology that we have, the expertise that we have to advance SMRs because we are in a competitive environment with the world, with Russia and China in that regard. I think if we really got serious about this, really opened up the marketplace so that we started developing these, we will be more than competitive on

the world market. But the world is going to -- they are not going to deny themselves energy.

Ms. Caputo, you raised your hand.

*Ms. Caputo. Well, I agree, there are a host of financial issues which are beyond our purview. But one, I think, significant factor in whether a country chooses to buy from us or buy from China or Russia has to do with confidence in the reactor. So to the extent that we have licensed reactors and they are built and operating, I think that builds confidence in the technology, and --

*Mr. Palmer. Ma'am --

*Ms. Caputo. -- makes it a much more --

*Mr. Palmer. -- with all due respect, one of the reasons things are so costly here is because we have so over-regulated things, and there is so much uncertainty in the marketplace. As I tell people all the time, money is just like water, it will always seek the path of least resistance. And that is what is happening to us. And the Nuclear Regulatory Commission has been an obstacle in the ability to advance this.

And again, building things at scale, I worked for two

international engineering companies and I understand if you build -- if you had standardization in design and you build -- start building things at scale, the price comes down. France has done a really good job in the standardization of their design. I think we can do the same thing with SMRs and build very safe practical solutions to our -- to the energy needs that we have in this country, but also the energy needs in emerging economies. And you may respond.

*Ms. Caputo. If I could draw a parallel to the regulatory situation, it makes things a lot more efficient if designs are standardized, but it will also make things more efficient in the regulatory context if our decisions are standardized. If we are embracing and reviewing and making a decision on various aspects of an application, that decision needs to remain consistent and be applied across all applications.

So regulatory questions, once they are answered, we need to remain consistent in the application of those because that enables applicants to recognize what the endorsed regulatory position is and streamline their applications, and thus the review --

*Mr. Palmer. Well, I --

*Ms. Caputo. -- by the fact that we are consistent in our decision-making.

*Mr. Palmer. I think that -- I agree with that. I think that is one of the things that is missing. But we have also got to address the whole issue of permitting. We cannot have these delays in getting permits that last 7, 8, 9, 10 years. That just kills investment, and investment is going to go somewhere else.

China right now, obviously, doesn't have the same regulatory regime that we do, but they are advancing technology in this, even though I wouldn't particularly want to buy one of their units.

I also see you wanted to comment, Mr. Wright.

*Mr. Wright. Yes, sir. First off, I think you are right on point. I have traveled to Poland and Romania and other countries around, and the one thing that you hear -- and you are hearing it here, too -- the people are not going to invest in these technologies unless they are certified, unless they are licensed. And so we have got to get through our processes as efficiently and effectively as we can, and

make it timely, again, over that strike zone over home plate because nobody is going to invest. They are not going to do it if we are in timely renewal, or if we are in some kind of an exemption process, because that doesn't send the right message.

*Mr. Palmer. Well, and my last point, Mr. Chairman, if I may, is the advantages of small modular reactors for providing energy, I mean, you can put 200 or 300 megawatts on 640 acres and operate for 60 years with proper maintenance. To get the same amount of energy production from a turbine farm would require about 77,000 acres, and that doesn't include the transmission lines that you would have to build to connect to them.

And the last point is we can recycle spent nuclear fuel. And I talked to the director of the National Nuclear Laboratory about how long we could operate a fleet just using spent fuel, recycling spent fuel. It is over 100 years. So Mr. Chairman, I really think that we have got an opportunity to step forward on the stage here, compete with China and Russia if we will just get our regulations right and our permitting correct.

And I yield back.

*Mr. Duncan. All great points. Unfortunately, your time is expired. I will now go to Dr. Schrier for five minutes.

*Ms. Schrier. Thank you, Mr. Chairman. Thank you, Madam Ranking Member. Thank you to all the commissioners here today.

I was so proud to see provisions of my bipartisan bill with Congressman Hudson, the Advanced Nuclear Deployment Act, included in the ADVANCE Act that is being discussed and celebrated today. It is such an exciting bill that slashes red tape, and readies the NRC for the next generation of advanced reactors, and advances reliable nuclear generation for critical natural -- national security infrastructure.

The way that this bill reduces regulatory burden is by instructing the NRC to create a program to expedite reactor proposals that are on existing sites or similar in design to other existing advanced nuclear plants. As a 2023 DoE report found, repeat deployments known as the Nth-of-a-Kind are expected to help reduce overnight capital costs by 40 percent from the First-of-a-Kind deployment.

Commissioner Hanson, could you talk about that affordability curve, and how this expedited program will lower costs even further as we scale up repeat deployments, and even maybe the speed with which you think that would happen?

*Mr. Hanson. Yes. Thank you, Congresswoman Schrier.

I think this provision in the bill is great, and I think as we have some success in the agency with licensing these initial designs, the -- where we need to go next, in my view, is to prepare for this Nth-of-a-Kind deployment, where we have standardized designs and we are deploying multiple reactors on a similar site -- on the same site or on similar sites, and getting that licensing and environmental review time down so that the regulatory costs of that curve, as you say, the benefit of going from Nth-of-a-Kind, of spurring that supply chain to get those economies of scale are, as I would say, as right-sized and as reasonable and as low as possible, while still ensuring safety.

*Ms. Schrier. And then potentially addressing some of my colleagues' comments, making them more feasible for export, as well, so we can clean up the rest of the world's

energy.

*Mr. Hanson. Indeed.

*Ms. Schrier. I also wanted to ask about domestic production of fuel for these advanced reactors. And this year the Department of Energy is soliciting manufacturers for RFPs to produce HALEU material and de-conversion activities necessary to fabricate fuels needed by these advanced reactors. And those awards could come as early as the end of the year to stand up critical supply chains since we are not getting this from Russia. This would advance our independence and our national security, and really retake our position as a global leader in nuclear energy.

So the Commission has been -- previously been asked if the NRC is ready to efficiently review these applications for conversion, de-conversion, and enrichment facilities that would be driven by the Department of Energy's efforts. And I would just love to see some more specifics on how you plan to promote a thorough and really expeditious process.

So my question again to Chair Hanson is, how is the Commission preparing for expected increases in application for the fuel production to ensure that this remains more

efficient, reduces redundancies, and really promotes safety and efficiency?

*Mr. Hanson. Yes. Well Congresswoman, I certainly get the point, and I agree with Commissioner Caputo. This is going to be one more area where the NRC can't be an impediment.

We have already processed some of what we call license amendments for increased throughput or change in production for some of our fuel cycle facilities. We are learning as we go along with that. So Centrus is a great example where we have permitted, you know, an initial level, a higher level, and now again we have got an issue in front of us for an even higher level of HALEU production, talking to our -- the enrichment -- the enrichers in this country about increased enrichment, higher uranium 235 enrichment, et cetera, and getting ready for those applications.

I think it has been a priority for me, as well as other members of the Commission, that the fuel cycle -- other parts of the fuel cycle don't get left behind as we prepare for advanced reactors.

*Ms. Schrier. Thank you. I have, in 30 seconds, one

more, I guess, question, comment, which is this issue of holding a hearing on each application to build a reactor, even if there is no public discussion or -- and no party contests the application. And these require just hundreds of thousands of staff hours with really no change in outcome. I am just curious about your thoughts on that, and whether that would be an acceptable and efficient path forward.

*Mr. Hanson. Well, I think we have taken, as a Commission, the action that we can take on this and still comply with the Atomic Energy Act. So then it really is Congress.

And one of the reasons I think we have reached the conclusions that we have to streamline the mandatory hearing process is because of all of the other public outreach and communication that we have seen. And so that would certainly be part of the justification for a bill like what you are talking about, Congresswoman.

*Ms. Schrier. Thank you.

I yield back.

*Mr. Latta. [Presiding] The gentlelady's time has expired and yields back. The chair now recognizes himself

for five minutes for questions to the witnesses. Again, thank you for being with us today.

Maintaining a robust domestic fuel supply chain is a matter of national security, and the current fleet of fuel cycle facilities is growing to support an increased global electricity demand. However, unprecedented NRC annual fees are inhibiting such planned growth. I am particularly interested in the licensing process for fast spectrum reactors which do not require plutonium separation. Currently, the NRC does not clearly state through which part they will license reprocessing facilities that do not separate uranium. They could be licensed under two categories of Part 50 to 52 or Part 70.

Commissioner Caputo, in your opinion, would licensing a fast reactor facility solely under Part 70 make the licensing process more streamlined for these facilities?

*Ms. Caputo. The licensing of advanced reactor would take place under 50 or 52 at this point, or 53 since those rulemakings are to address reactors and reactor safety.

If you are talking about the process of recycling the fuel, that is, in my mind, much more of a fuel facility-type

application. So there may be an artifact in the nature of the language of the Atomic Energy Act that would drive us, as an agency, toward regulating it like a reactor under the regulatory framework that we use for reactors.

But I think it is probably more practical to find a way to do that under Part 70, but I would like to take that for the record. I think there might be some legal implications there.

*Mr. Latta. Well, you know, just to follow up, you know, given that Part 70 licensing focuses on the fuel cycle, do you agree that the Part 70 has more relevant requirements for the fast reactor facilities?

*Ms. Caputo. I am sorry, I don't understand the question.

*Mr. Latta. Yes, I am sorry. Do you agree that the Part 70 has more relevant requirements for fast reactor facilities under that part?

*Ms. Caputo. I do when it comes to a recycling facility. It is -- Part 70 is for regulating fuel, so if you are talking about recycling you are taking fuel, disassembling it, processing it in some manner, recovering

the usable materials, and then using those materials to fabricate new fuel. So it is much more of a fuel processing type of a plant than a active reactor with an ongoing nuclear reaction and all of the safety provisions that go with that.

*Mr. Latta. Let me ask this because, again, unfortunately, we have had two hearings going on in the committee this morning.

In the discussion -- you know, especially when you think about the French and the recycling of their spent nuclear rods, should we be doing that in the United States?

Because -- and going back, you know, about 1975 and then 1976, there was the discussion that we should not be doing it. But especially what we are looking at now with what we should be doing into the future, and also hearing that we could have maybe 100 years of fuel out there for our newer-type reactors out there, is this something we should be doing in the future in this country?

*Ms. Caputo. There are historical reasons why the countries that chose to recycle developed those processes. They were fairly expensive at the time. It was with the expectation that uranium itself would be expensive. The cost

effective nature of reprocessing at this point isn't necessarily there with that process.

So what I think will be interesting to come is there are other technologies under discussion now that would be a very different type of type of processing technology that could be more cost effective and more efficient at reducing the amount of waste or the nature of waste that would ultimately require disposal. So I think I will be interested to see which of those technologies develops and comes forward to -- for regulatory approval.

*Mr. Latta. And again, just to ask the -- everyone on the Commission, has anybody been to France to see what they do?

*Ms. Caputo. Yes.

*Mr. Hanson. I have not yet.

*Mr. Latta. Okay, Commissioner Wright, have you been, by chance, to France to see on their recycling?

*Mr. Wright. I have not.

*Mr. Latta. Commissioner Crowell?

*Mr. Crowell. I have not, but I have visited the Japanese facility intended to do the same thing.

*Mr. Hanson. Yes, I have been to the Japanese facility, as well.

*Mr. Latta. I beg your pardon?

*Mr. Hanson. I have been to the Japanese facility, as well.

*Mr. Latta. You have been to the Japanese? Well, has anybody else been to the Japanese facility?

*Ms. Caputo. Mm-hmm.

*Mr. Latta. Okay. Well, I think that is, you know, again, unfortunately, I have to ask -- have the rest of my questions submitted for the record.

[The information follows:]

**********COMMITTEE INSERT**********

*Mr. Latta. But I think it is really important in this country we explore that because, again, we could have -- should have been thinking about it 49 years ago. Here we are again today. So I think that is an important question.

And with that I yield back the balance of my time, and the chair now recognizes the gentleman from New Jersey, the ranking member of the full committee, for five minutes for questions.

*Mr. Pallone. Thank you, Mr. Chairman. I want to begin by focusing on the implementation of the ADVANCE Act.

And section 501 of the ADVANCE Act requires the NRC to update its mission statement. That provision was based on language in Chair Duncan's automatic -- I am sorry, Atomic Energy Advancement Act, and it was my understanding when I voted for it, both in committee and twice on the floor, that the update of the mission statement does not in any way change the NRC's focus or emphasis on safety. And I mentioned this in my opening statement. So I wanted to ask Chair Hanson.

As the Commission works to update its mission statement pursuant to section 501, how will you ensure that the update

does not alter the NRC's focus on safety or its statutory obligations to protect public health?

*Mr. Hanson. Ranking Member Pallone, thanks for the question.

Right, the NRC's mission is to have reasonable assurance of adequate protection of public health and safety, promote the common defense, and protect the environment. That is still going to be the core of our mission.

I think the update of the mission statement, as I see it, is how do we do that, and what else can we say about how we accomplish that mission, and the potential to ensure that safety going forward, but also be much more efficient, innovative, confident, et cetera, in the way we reach those decisions going forward.

*Mr. Pallone. All right, now I would like to discuss a bill we considered last July that included a proposal that would limit the composition and applicability of the Advisory Committee on Reactor Safeguards, and I had concerns about that bill as written. So let me go to Commissioner Crowell.

You have been particularly outspoken in your support for the NRC's Advisory Committee on Reactor Safeguards. Could

you talk about the vital role that it plays, and what you might say to those who feel that it is not as vital as it was in the past?

*Mr. Crowell. Thank you for the question.

I believe the role of the Advisory Committee on Reactor Safeguards is more important today than before, particularly in the context of scaling back or potentially having Congress remove the requirement for mandatory hearings. The advisory committee is the backstop for the public to know that licensees -- or licenses are being approved without compromising safety, and I believe that role should persist.

That being said, they could also -- that advisory committee could do their work more efficiently, as well. And the current chair of the advisory committee is working on initiatives to streamline their process and make that advisory committee process more efficient, in line with how the broader NRC is doing the same thing. So I think it is very valuable and nimble for today's purposes.

*Mr. Pallone. All right, thank you. Now, finally, I wanted to turn back to a provision of the ADVANCE Act that wasn't in the House version, but I think will be particularly

important to the functioning of the NRC, and that is section 503 of the law that amends the Nuclear Energy Innovation and Modernization Act to increase the NRC's cap on corporate support costs. So let me go to Chair Hanson.

Can you talk about how corporate support funding is vital to the overall functioning of the NRC, and how the amendments in the ADVANCE Act will allow the Commission the flexibility it needs to carry out its mission, if you would?

*Mr. Hanson. Yes, thank you, Ranking Member Pallone. I deeply appreciate the committee's work and changes to the corporate support cap: A, raising the cap to 30 percent, but also excluding some costs like the cost of the Commission, et cetera, from that cap. Those exclusions will provide us about $34 million worth of headroom to make key investments, and these investments include modernization of IT, of information technology in the agency, ongoing relinquishment but also upgrade of our space, AI, IT investments. We have an ongoing capital improvement project to move our emergency operations center from an existing building across the street into our headquarters.

All of these things are captured substantially, if not

exclusively, under corporate support. And the provisions in the ADVANCE Act will certainly help with that going forward.

*Mr. Pallone. All right. Thank you so much.

And thank you, Mr. Chairman. I yield back.

*Mr. Weber. [Presiding] The gentleman yields back, and the chair now recognizes the gentlelady from Arizona, Mrs. Lesko, for at least five minutes.

*Mrs. Lesko. At least five minutes? All right. Thank you, Mr. Chairman.

I think I talked to you before. I am from Arizona, and so we have the Palo Verde nuclear plant outside of Phoenix, Arizona. And this was a number of years ago when I talked to then head of the plant, the nuclear division of Arizona Public Service, and she said that when inspectors came out they had to pay for all the inspectors to come out, and sometimes they did work and had these checklists that weren't really high-priority, safety things. They didn't really accomplish the goal. And there was duplicative work and that type of thing. So part of my legislation was included in the ADVANCE Act.

And so, Chair Hanson, you have said that eliminating

duplicative inspection activities allows the staff and licensees to focus resources where they are most needed. Of course, I agree. Tell me what you are doing to implement this in the reactor oversight process.

*Mr. Hanson. Well, Congresswoman, as part of implementation of the ADVANCE Act, we are going to follow the provision that tells us to take another hard look at the reactor oversight program to further risk-inform that. We had made a couple of changes earlier with regard to reducing the frequency of some engineering inspections, as well as changing the way we accounted for very minor violations on the part of plants, but revisiting that and, again, relying on that -- as Commissioner Caputo noted, the ROP has been in place now for more than 20 years, we have learned a lot over that 20 years -- and applying that knowledge to revisit this, this is a great time and opportunity to do that.

*Mrs. Lesko. Great. And if I remember right from talking to them -- and again, this was a while ago -- they had said a lot of the things were -- some of the things that were implemented during COVID like remote, you know, cameras and that type of thing -- seemed to make sense to them, and

was wondering if you guys were going to look at maybe implementing that.

Also, how do you, as commissioners, how do you evaluate what is actually happening on the ground? Do you go out every once in a while? What do you do?

Yes.

*Ms. Caputo. Yes.

*Mr. Hanson. Go ahead.

*Ms. Caputo. We visit plants as often as possible. We also talk to our regional offices that also have cadres of inspectors.

But it is -- I think -- yes, I will have my colleagues contribute. But any time I go to a plant, I start by meeting with our resident inspectors and listen to their view of how the plant is operating, what they see as the strengths and weaknesses, and the things that they are most focused on when they are inspecting. So that is a great backdrop as I tour the plant and look at the progress that is being made.

*Mrs. Lesko. Thank you.

And Commissioner Wright?

*Mr. Wright. Yes. Yes, ma'am. Thank you so much for

asking about our resident inspection program.

The inspectors, I mean, I love those guys and gals. They are the boots on the ground. They are the public-facing people because they live right there, as well as work there.

I actually -- beyond visiting the plants, I actually do a resident-for-a-day program, where I go into the plant at 4:30, 5:30 in the morning. I do turnover with the staff, with the plant personnel. I participate in all the meetings that our licensees interact with the plant personnel, and I learn really what is important, and how the trust is made between our people and the licensees' people, and -- because that trust is important.

And you realize that maybe 30 percent of the time is about the ROP, the rest of it is about people, and it is about getting things done and understanding, you know, what is important to our people. I can't tell you the number of times that the phone will ring, and they will say, "We know you are interested if this were to happen over here. This is happening, we want you to come. We are not going to do anything until you get here.'' So I think that is really, really important. And they know that we have got to make

things more efficient, and they want to spend the time on the things that are the most safety significant.

*Mrs. Lesko. All right.

*Mr. Wright. All the way down to doing paperwork.

*Mrs. Lesko. Thank you. I have another question for whoever wants to answer it.

The Nuclear Regulatory Commission received a construction permit application for TerraPower's natrium reactor. What is the status of the application?

*Mr. Hanson. Congresswoman --

*Mrs. Lesko. Yes.

*Mr. Hanson. -- the application has been accepted for review. It is under review. We set a, I think, aggressive but achievable 27-month schedule for that because, in addition to the application, we are also reviewing 13 topical reports concurrently, technical aspects of the reactor that we are completing. I think we are about to complete three of those, and those -- the results of those papers will get integrated into the review.

And I think I am pleased with the way the staff has approached this review, and we are going to monitor it

closely as we go along.

*Mrs. Lesko. Well, good. And my time has expired, but thank you for all the work that you do. It is very important.

As you probably know, I think nuclear is a huge part of our energy portfolio, and we need to keep it going. Thank you.

With that I yield back.

*Mr. Weber. The gentlelady yields back. The chair now recognizes the gentlelady from Florida, Ms. Castor, for five -- at least five minutes.

*Ms. Castor. Thank you, Mr. Chairman.

I am sorry that Chair Duncan isn't here, but I want to give him kudos, along with Ranking Member DeGette and the committee for passage of the bipartisan ADVANCE Act, having it signed by President Biden. I believe it is the most significant clean energy law since the historic clean energy provisions contained in the Inflation Reduction Act.

And I thank all of our NRC commissioners for what you do, especially your work ensuring a safe, resilient, clean energy future. It is critical right now.

But here is the challenge. The economy is booming, the manufacturing across America is undergoing a renaissance at the same time that we are seeing rise in data centers and AI. The demand for energy in the United States is up, and the estimates are that annual growth of -- we will see annual growth of five to six percent through the end of the decade, a tenfold increase in the growth rate from current levels.

To meet this new demand, the United States is left with a couple of options. We can look backwards and go back to old solutions like coal and gas peaker plants, which are costly and they are adding to the climate impacts, or we can shift to cleaner technologies. That is why I think it is important that we focus on the latter, and build upon the progress that we have made in the Inflation Reduction Act, which is driving unprecedented levels of investment in clean energy projects.

Commissioner Caputo, how do you view this rising electricity demand, and how is it impacting advanced nuclear research and everything the NRC is doing?

*Ms. Caputo. Well, I will be honest: with a certain amount of trepidation. I think that, given the nature of the

growth and demand, there will be a sizable development of generation. I think what makes me a little nervous for us as an agency is it is not exactly clear when these applications are going to come in. And certainly in the renaissance, as it was called at the time in 2007, once the first applications started to come in, we received applications for 29 units in -- over the span of about 2 years.

So what the agency most needs is as much notice as possible from applicants before they come in and file an application. And hopefully, on our side, there will be pre-application engagement with applicants before they file to make sure that we are getting a high-quality application, but I think we need mostly notice of what is coming in so we can make sure that we are resourced and the staff is trained accordingly to manage the influx.

*Ms. Castor. Thank you.

And Chair Hanson, that kind of takes us back to licensing and permitting in a way, as you balance that with safety and sustainability. As the White House Council on Environmental Quality outlined in a report recently, technology is like user-centered software, and AI tools can

help modernize permitting and reduce costs. Has the NRC produced any technology upgrades to make its licensing and permitting processes more efficient?

*Mr. Hanson. Yes, there are areas in this, and the staff is starting to explore. Earlier this year I directed the staff to look inwards to examine use cases for artificial intelligence in particular, and how we might use that to ensure our safety mission, but make those processes more efficient. They have come up with a limited set of use cases that they would like to try out.

But, you know, to Commissioner Caputo's point, we need to proceed cautiously here, make sure that those models are accurate as possible, that they are secure and that we are seeing the kind of results that we expect. I think sometimes, as you know, artificial intelligence is thrown around as the thing that is going to solve all of our, you know, all kinds of societal problems. But I think in a lot of ways at the NRC it is going to be just nuts and bolts, blocking and tackling, and looking at how we can do things more efficiently. If technology can help us do that, then fantastic.

*Ms. Castor. So some of those nuts and bolts are just having adequate resources and staffing to move reliable permitting. Is that your perspective, as well?

*Mr. Hanson. It is adequate resources. But to Commissioner Caputo's point, we are not sure when that wave is going to come. And so I think over the last couple of years what you have seen from the Commission, from a budgeting standpoint, is to kind of hold steady while we see how the future is going to shake out, knowing that, yes, we may need to hire some people, but that we are -- we may also not be able to hire our way out of the coming wave, either, that we are going to have to think differently --

*Ms. Castor. One of the things --

*Mr. Hanson. -- about our mission.

*Ms. Castor. -- we did to try to expedite clean energy from nuclear -- it was in the Inflation Reduction Act, that tax credit of up to 1.8 cents per kilowatt hour for zero-emission nuclear electricity, and then provided DoE with some additional funds for the next-gen nuclear fuel for reactors.

But I am very concerned now with this Project 2025 proposal. Folks need to know across this industry that that

Project 2025 calls for repealing the nuclear tax credit, which would put us farther behind what we need to be doing to expedite clean energy to the grid.

My time is up, and I yield back my time. Thank you.

*Mr. Duncan. [Presiding] The gentlelady's time has expired, and -- it must be a nuclear day, I had to go speak on the Savannah River site real quick -- and I will now recognize Mr. Weber for five minutes.

*Mr. Weber. Thank you, Chairman.

Mr. Hanson, my bill, the Modernize Nuclear Reactor Environmental Reviews Act, was included in the ADVANCE Act of 2024, which was signed into law July 9. This part of the law directs NRC to reform and add efficiency to the environmental review process to help accelerate the deployment of new reactors. Currently, the NRC estimates that the environmental review process will take approximately 24 to 36 months to complete.

So my question for you, Chairman, is when it is reform and add efficiency, what kind of reforms do you anticipate, and how do you manage to have better efficiencies?

*Mr. Hanson. Yes, Congressman, we have got a number of

things going in the environmental review area as we speak, and we have done a couple of things over the last year. One is we put in place a generic environmental impact statement for new reactor construction that resolves a lot of environmental issues up front. And the second thing we did was we expanded the list of what are called categorical exclusions. That is, the things that you don't have to look at when you do an environmental review.

So having done that, then, the staff has got a couple of papers in front of us on implementing the Fiscal Responsibility Act and the environmental provisions within that, and we are looking at that now.

My understanding is that we can get down -- an EIS for a site down to something like 18 months, and an environmental assessment to something like 12. That was the last thing I understood. I am happy to confirm that for the record.

*Mr. Weber. How long did it take you all to arrive at that conclusion, that decision? Did it take you weeks? Was that months? Was that --

*Mr. Hanson. I think they --

*Mr. Weber. How many --

*Mr. Hanson. I think they look at all of the resource areas that are required to be looked at under NEPA, the ones that have already been resolved generically, as we said, the ones that are excluded, and then how many -- how much time they think they need to look at those remaining areas. And it is -- I mean, in the generic environmental impact statement we resolved probably 80 out of 100 generic --

*Mr. Weber. Well, July 19 to today is 2 weeks. This is July 14. I missed -- July 23. I can do math sometimes.

Is the continuation of that implementation, is it a priority for you all?

*Mr. Hanson. It is a priority for us. We understand that environmental reviews can sometimes take longer than the safety reviews themselves, and we want to focus on that and have those be as efficient as possible while we are meeting the requirements of the law.

*Mr. Weber. How do you gauge whether that efficiency, the target of more efficiency, how do you gauge if you are doing if you are doing good at it, great at it, or really good, or if you still have room for improvement? How do you gauge that?

*Mr. Hanson. Well, I think, you know, again, I think looking at a rough target like 18 months, and figuring out where we are coming in relative to that, are we north of that or are we south of that, what are the -- and then getting into the details on what are the factors that are driving a deviation there.

*Mr. Weber. Do you compare it to current -- I mean past, previous policies and permits?

*Mr. Hanson. Yes, absolutely. We can, yes.

*Mr. Weber. Do you have a percentage where you can say we are 20 percent better -- Commissioner, I will come to you in just a second -- we are 30 percent better? Do you have a way of giving us a kind of a weigh-in there?

And I will let you answer that if you know, Chairman, or maybe Commissioner Caputo knows.

Are you kin to Neil Caputo? It is a joke. Go ahead, Commissioner, I recognize you.

[Laughter.]

*Ms. Caputo. No, it was actually an Ellis Island name for my husband's great-grandfather.

*Mr. Weber. I was going to say that is very funny, you

know, my joke.

*Ms. Caputo. There are several Caputos around town --

*Mr. Weber. Right.

*Ms. Caputo. -- that I am not related to.

One of the things that I think we are looking at, certainly as a Commission, is how do we streamline the processes, but another part of that is the people side. And we have seen fluctuation in work in environmental reviews. And I think one of the reasons we are seeing delays now is we don't have enough environmental reviewers in place to execute the work timely because we have seen shifting work.

So even though --

*Mr. Weber. Percentage-wise, you need more reviewers?

*Ms. Caputo. So even though the agency --

*Mr. Weber. You need 40 percent more reviewers, 20 percent more reviewers? A number?

*Ms. Caputo. I don't really have a handicap on it. I don't see data that would really give me a feel for that, but I think one of the things that concerns me is we have hired 600 people in the last couple of years, including our wonderful cadre in the back, and we need to do a better job

of making sure that we are either hiring people for specific tasks like environmental reviews, or training them up to execute that work so that we make sure we have enough people doing the work so that it is efficient at the same time that we are trying to make the processes themselves more efficient.

*Mr. Weber. Well, and that is a broader -- I am running out of time, but that is a broader thing that needs to take place entirely -- inside the entire agency, it is not just in this process. So I appreciate you all being -- you know, working on that.

So, Mr. Chairman, I yield back.

*Mr. Duncan. The gentleman yields back. I now go to the gentlelady from California, Ms. Matsui, for five minutes.

*Ms. Matsui. Thank you very much, Mr. Chairman, and I want to thank the commissioners for being here today also.

When done right, nuclear energy can be an important source of zero-carbon electricity, and it has the potential to play a key role in decarbonizing our power grid. However, we must address the waste problem. The Rancho Seco nuclear power plant in my district closed over 30 years ago, and the

site is still acting as a temporary storage site for spent nuclear fuel. This spent fuel needs to be safely stored for hundreds of thousands of years. This cannot be the responsibility of individual communities. We need a comprehensive national strategy for the long-term management of nuclear waste.

Chair Hanson, the NRC is currently licensing nuclear reactors under the premise that nuclear waste can be stored safely on site indefinitely, per the continued storage rule. Is that correct?

*Mr. Hanson. Congresswoman, the continued storage rule evaluated the -- particularly the environmental impacts of ongoing storage at both a 6,100 and indefinite year time period.

*Ms. Matsui. Okay, so that is yes.

*Mr. Hanson. Yes.

*Ms. Matsui. Okay. Do you expect communities like Sacramento to manage nuclear waste for hundreds of thousands of years?

*Mr. Hanson. I am sorry?

*Ms. Matsui. Do you expect my district in Sacramento to

manage nuclear waste for hundreds of thousands of years?

*Mr. Hanson. No, ma'am.

*Ms. Matsui. Okay. Is it fair to say that it would be safer to store spent fuel as a smaller number of consolidated storage sites?

*Mr. Hanson. It is currently stored safely around the country. And if we were to license a consolidated spent fuel storage site, it would also be safely stored there.

*Ms. Matsui. Okay. In the long run, do you agree that we need a comprehensive Federal waste management program to ensure the safe storage of nuclear waste?

*Mr. Hanson. Yes, ma'am.

*Ms. Matsui. Okay. In addition to nuclear reactors, the NRC licenses waste storage facilities including consolidated interim storage facilities and repositories. Do you have any concerns about the ability of the NRC to license a safe, consolidated storage site for high-level nuclear waste?

*Mr. Hanson. No, ma'am, I don't.

*Ms. Matsui. Okay.

*Mr. Hanson. We have issued two licenses already.

*Ms. Matsui. So is it fair to say that the current impasse on consolidated storage for high-level nuclear waste is a policy problem, not a technical problem?

*Mr. Hanson. I would agree with that statement.

*Ms. Matsui. Okay. Thank you. We must address this policy failure.

The geologic repository at Yucca Mountain has been stalled now for over 15 years, and I don't hear any nuclear policy experts advocating to restart the project. What we did hear from experts at this committee's recent nuclear waste hearing was the need for consent-based siting, the need for an interim storage, and the need for a second repository.

I ask unanimous consent to submit for record an op ed from the CEO of the American Nuclear Society calling for a consent-based process to identify a second repository, Mr. Chairman.

*Mr. Duncan. Without objection, so ordered.

[The information follows:]

**********COMMITTEE INSERT**********

*Ms. Matsui. Thank you.

To quote the nuclear -- American Nuclear Society, "We feel it is naive and increasingly counterproductive to keep putting all our eggs in the Yucca basket. Congress should move to ensure that DoE has the resources it needs to begin a consent-based process to identify a second, different repository option.'' Chair Hanson, even if Yucca Mountain were to open tomorrow, the license application for Yucca Mountain was for 70,000 tons of waste. Is that correct?

*Mr. Hanson. That is correct.

*Ms. Matsui. DoE considered expanding Yucca Mountain to handle up to 130,000 tons of spent fuel, but even that is not enough space for all the expected waste from current reactors and new advanced reactors. DoE has recently said that the total expected waste from current reactors alone is 140,000 tons.

Chair Hanson, assuming that nuclear power continues to provide a significant portion of U.S. power needs for the foreseeable future, is it prudent to plan for a second repository?

*Mr. Hanson. Congresswoman, if I might, I would like to

provide a little historical context.

As you probably know, in the Nuclear Waste Policy Act, as it was passed in 1982, it envisioned two repositories in the United States, one in the East and one in the West. It was a policy decision in 1986 to end the search for a second repository, and to focus on the three candidate sites that were -- eventually, one of which was eventually chosen in the Nuclear Waste Amendments Act of 1987. In that Act Congress directed the Department of Energy to provide a report in or around 2007 about the need at that point for a second repository. And in that report in 2007 DoE reported that, as you note, they thought they could expand Yucca Mountain et cetera, and so they -- there was still no need at that time for a second repository.

But the original vision in the Nuclear Waste Policy Act, in a way, still stands because of the statutory limit on the first repository itself, which is 70,000 metric tons.

*Ms. Matsui. So we have to listen and provide DoE the resources needed to explore options for the second repository?

*Mr. Hanson. I think --

*Ms. Matsui. Yes.

*Mr. Hanson. -- congressional direction in this area to DoE and, I am sorry, you would probably have to talk to the Department of Energy about that, as the developer of a -- of any repository on that.

*Ms. Matsui. All right. Thank you very much, and I yield back --

*Mr. Duncan. The gentlelady yields back.

*Ms. Matsui. And I have further questions, too.

[The information follows:]

**********COMMITTEE INSERT**********

*Mr. Duncan. And I will now recognize the gentleman from Virginia, Mr. Griffith, for five minutes.

*Mr. Griffith. Thank you very much, Mr. Chairman. I would like to address mandatory hearings, which, in my opinion, these hearings can run up the Nuclear Regulatory Commission fees for applicants, waste time, and force staff redundancy.

About how much of these application review costs would be estimated to be added to? And I know that you all are going to get to that. And last year some of you all and the NRC executive director of operations told the committee that mandatory hearings are not necessary to protect the public. I commend the Commission in its recent vote to make the process more efficient. However, my legislation, H.R. 6464, the Efficient Nuclear Licensing Hearings Act, is still necessary to eliminate some of these redundant hearings.

Commissioner Caputo, would the Efficient Nuclear Licensing Hearings Act enable the NRC to better allocate its resources?

*Ms. Caputo. Yes, I believe it would.

*Mr. Griffith. And will amending the law on mandatory

hearing requirements add more efficiency and timeliness to the NRC licensing decisions?

*Ms. Caputo. I believe it would, particularly if we begin to see a lot of applications come through.

While the Commission has voted to streamline the process as best it can, the reality, I think, is that if we start to see significant numbers of applications, that will be a significant portion of work on the Commission itself. And I think this mandatory hearing is largely a historical artifact that pre-dates all of our public outreach, which I list at length in my vote on the mandatory hearing.

*Mr. Griffith. And I understand there is, like, 20 other opportunities for public comment. Is that correct?

*Ms. Caputo. Yes, and in openness, I -- the requirement for mandatory hearing certainly pre-dates our principles of good regulation which focus on openness. Our strategic plan, fully one-third of the strategies in it, focus on stakeholder engagement.

There are lots of opportunities, as you mentioned, during the license application process, there are tips on our website, instructions on how to file comments, how to file

contentions, how to find information. There are contacts listed for all license application pages at the bottom so that people can call a project manager with questions.

So there are numerous ways for the public to both find information and engage in the process that did not exist at the time the mandatory hearing requirement was enshrined.

*Mr. Griffith. Well, and I think repealing the mandatory hearing will allow the NRC staff and the Commission to focus on new nuclear technologies and complex licensing matters, as well as allowing staff to focus time on safety enforcement and inspection activities. Would you agree with that?

*Ms. Caputo. Yes, I would.

*Mr. Griffith. All right, I appreciate that.

We are also doing some, I think, exciting things in Virginia, with Governor Youngkin working on small modular reactors. We are hoping -- it looks like they have moved east on us, we were hoping we would get the first one in Virginia, in my district. But I do think it will happen at some time. And I know that you all have worked with the Tennessee Valley Authority on early site license.

Could -- and I will go -- I will stick with you, Ms. Caputo, but if you think somebody else should have it, then just say, "Defer.'' But could you all talk a little bit about the actual sites, and how they are evaluated?

Because one of the concerns that has been raised in my district by some opponents is that we have a lot of karst formation, and my understanding is that the site would be well vetted so if there is a cave a few feet underneath, they probably wouldn't put it there. Is that fairly accurate, or -- what do you all do to get the sites evaluated to make sure we are not putting it in a location --

*Ms. Caputo. Yes, geology --

*Mr. Griffith. -- that might go --

*Ms. Caputo. Geology is one significant component of it. Seismology, weather patterns, flooding, all kinds of external hazards would be reviewed before determining whether or not it would be a safe location to host a nuclear plant.

*Mr. Griffith. So you are not going to put it over top of a potential sinkhole?

*Ms. Caputo. No.

*Mr. Griffith. I wouldn't think so. But there are

people who don't understand your process in my district who are concerned because we know that we have a lot of karst formation. But every one of our mountains is a little bit different. They may have been formed similarly, but sometimes they end up completely different. And placing it, you know, on one mountain is a lot different than placing it on another. Would you agree with that, as well?

*Ms. Caputo. Absolutely.

*Mr. Griffith. Absolutely. I appreciate your time, and --

*Ms. Caputo. It stresses the importance of public communication both by any of the industry applicants, but also on the part of the NRC once we are engaged in the process.

*Mr. Griffith. Yes, ma'am. And I appreciate all of you, and appreciate you all being here today and answering our questions.

I yield back, Mr. Chairman.

*Mr. Duncan. The gentleman yields back, I will go to the gentleman from California, Mr. Cardenas, for five minutes.

*Mr. Cardenas. Thank you very much, Chairman Duncan and also Ranking Member DeGette, for having this hearing today, and also I would like to thank the chairman and commissioners of the Nuclear Regulatory Commission for being here, as well, and answering our questions in full view of the public.

To date the United States has generated nearly 90,000 metric tons of spent fuel, and it is estimated that by 2075 that number could grow to nearly 140,000 metric tons. Despite the Nuclear Waste Policy Act having called for a permanent repository to be set up by 1998, to this date we still have no short or long-term consolidated site to accept our nation's nuclear waste. As I have expressed many times before, while I recognize that nuclear is a carbon-free, reliable energy source, I have serious concerns about saddling our children, grandchildren, and the generations to come with that highly radioactive waste that has nowhere to go.

Chairman Hanson, last year you and I spoke about the life cycle of nuclear waste. During our conversation you said that there is a reasonable assurance that the systems we have in place to store spent fuel will protect the public in

the near term. However, as we discussed, the radioactive -- radioactivity of nuclear waste will last 500 years and, in many cases, longer.

With that in mind, it is of utmost importance that we take the necessary steps to keep our communities protected in the long term. The Department of Energy itself has determined that an interim storage facility is needed to help manage our nation's nuclear waste, and it has been agreed upon by the international scientific community that spent fuel must be buried in deep geologic repositories, otherwise known as DGRs, to keep future generations safe.

In terms of public health and safety, what is at risk in the long term if we do not online an interim storage facility and deep geologic repository domestically?

*Mr. Hanson. Congressman, thank you for the question.

We are -- we have over 4,000 spent fuel storage casks that have been loaded, and we have not seen an issue with those today. And I know you are talking about the long term solution for this. We are, however, at the NRC, focused on, say, a period of anywhere from 40 to 80 years in the current storage casks while a long-term solution and a policy of the

U.S. Government is worked out.

And it is primarily a policy conundrum, and much less of a technical one. We manage spent fuel safely every day in this country. As you said, there is quite a lot of it out there. And we at the NRC have a robust set of safety standards and inspection processes to ensure that that is the case.

*Mr. Cardenas. Most of this spent fuel is created by the government or private industry? Most.

*Mr. Hanson. Well, most of it is in the possession of private industry. There is a contract with the government to eventually take that.

*Mr. Cardenas. Okay, thank you. As you know, Finland is currently on its way to becoming the first nation to bury spent nuclear fuel in a deep geologic repository.

Also, Chairman Hanson, can you discuss how permanent disposal in deep geologic repositories would ensure the health and safety of the communities in centuries to come?

Can you discuss any lessons learned from Finland that we can apply here in the United States?

*Mr. Hanson. Yes, thank you. We have watched closely

the experience in Finland, Sweden, and in Canada, and particularly with regard to a consent-based process. And the early engagement and education of the community in Finland was particularly noteworthy, how they went to the community, got the community's agreement and support for the development of the facility itself has been, I think, an important lesson learned for the world.

*Mr. Cardenas. Okay, thank you. Unfortunately, our nation has a history of siting commercial nuclear reactors in communities that did not consent to house such sites. Lack of consent, broken promises, and a failure to follow through have all led to understandable distrust in many communities.

Recently, under Congress's direction, the DoE began carrying out a consent-based siting process to identify communities that might be interested in hosting an interim nuclear waste storage facility. Mr. Chairman, what role do you believe consent-based siting can play in ensuring the licensing of future storage facilities -- that it goes smoothly?

*Mr. Hanson. Well, Congressman, at this stage I think it is important to emphasize the NRC's role here, which is

strictly a safety and technical one. We are going to look at that information, we are going to look at the operations of the facility, we are going to look at the technology that they use to ensure the protection of the public and the environment.

How the Department of Energy elects to get to that place where they want to submit a license application to us for that facility, that is going to be largely on kind of -- on their end. We will have an obligation as part of that process to communicate clearly with the public about what our standards are and how we have reached our safety conclusions.

*Mr. Cardenas. Thank you.

Mr. Chairman, my time expired, I yield back.

*Mr. Duncan. The gentleman yields back. I will now recognize the gentleman who has the nation's newest nuclear reactors up and running at Plant Vogtle. Mr. Allen is recognized for five minutes.

*Mr. Allen. Thank you, Mr. Chairman, and I appreciate you holding this important hearing today. And thank you for being here as your commissioners of the Nuclear Regulatory Commission.

I think we are all in agreement that our energy demand is growing at a rapid pace. We are going to need more energy. Nuclear energy is critical for energy security. Here in the United States it is affordable, reliable, and clean, with baseload capacity.

I am no stranger, as the chairman mentioned, to the importance of the Nuclear Regulatory Commission, as my district, the 12th district of Georgia, is home to Plant Vogtle. Plant Vogtle has units 3 and 4, which are the first new reactors built in the United States in over three decades. With units 3 and 4 in full commercial operation, Plant Vogtle is the largest nuclear power station in the country. I am proud of all the co-owners who persevered during this project which showed that America can still do big things.

This Congress we have made great strides in advancing nuclear energy policy, most notably with the ADVANCE Act. Provisions from my bill, the Nuclear Licensing Efficiency Act, were signed into law as part of the ADVANCE Act. Section 505 of the ADVANCE Act implements new efficiency requirements based on this legislation. The provision

requires NRC to establish techniques and guidance for evaluating applications for licenses for nuclear reactors to support efficient, timely, and predictable reviews of applications for those licenses to enable the safe and secure use of nuclear reactors. It provides periodic reviews and performance metrics. It seeks to drive efficiency improvements.

Chairman Hanson, what is the timing for implementing these new provisions?

*Mr. Hanson. Thank you, Congressman.

I think this is a provision that we can get rolling on right away. I think, as I mentioned earlier, the Commission and the agency needs to move towards these Nth-of-a-Kind deployments, where you have a standardized design on the same site or even a very similar site. And so my understanding is we can get a lot of that, a lot of the review time, and achieve a lot of efficiencies through that standard design, where we are looking at similar Nth-of-a-Kind-type deployments.

*Mr. Allen. Well, is this coming soon enough?

*Mr. Hanson. I am sorry?

*Mr. Allen. I said this -- you know, is this fast enough to meet the coming demand?

*Mr. Hanson. I think we are already starting to see this with -- there is a small reactor project in Tennessee --

*Mr. Allen. Okay.

*Mr. Hanson. -- where we are seeing efficiencies already achieved in the second-of-a-kind, and we will see it with third and fourth, as well. So we are doing this now, and I look forward to reporting back to you on the implementation of the provision.

*Mr. Allen. Well, there are a number of advanced reactor designs at various stages of review that, if approved, would result in design certification. However, if a utility wanted to pursue construction of new reactor in the near term, my understanding is that there is only one certified design that is of proven construction and operating record, and that is the Westinghouse AP 1000 design, the design that was used at Plant Vogtle. I understand that the NRC design certifications are for 15 years, and the current AP 1000 design certification expires on February 2026.

I also understand that two years ago staff recommended

removing the expiration date for designs that have been certified, but that it needs the Commission's approval for implementing that recommendation. This seems like a no-brainer to me, but it hasn't happened yet.

Commissioner Wright, I understand you have offered a proposal to take on this issue as a standalone matter. Where does the Commission stand on the decision to remove the expiration date for design certifications, as the NRC staff has proposed?

And when can we expect a final decision?

*Mr. Wright. Thank you for the question.

So I proposed a COM. I took it out of another SECY that we had on the Part 50/52 alignment, because this is -- to me, it is a very common-sense solution to -- that we could do right away. I just thought it was good because no one is going to invest, no one is going to buy something that is not certified or has a license. So if it is in process, it is in some kind of review, it sends the wrong message. And this was an opportunity to do something that proved -- that would prove that we could do something --

*Mr. Allen. Yes.

*Mr. Wright. -- right away, and get --

*Mr. Allen. Well, and, you know, it had been 30 years since we had built reactors. There was a learning curve and, obviously, some setbacks. But unit four was much, much faster, more efficiently built. And so now we know how to do these things, so let's --

*Mr. Wright. Right.

*Mr. Allen. -- let's look at this option.

And with that, my time is out. I have some more questions. I will submit them to you in writing.

[The information follows:]

**********COMMITTEE INSERT**********

*Mr. Allen. And Mr. Chairman, I yield back.

*Mr. Duncan. The gentleman yields back. I will now go to the gentleman from Texas, Mr. Pfluger, for five minutes.

*Mr. Pfluger. Thank you, Mr. Chairman, and thanks for the witnesses being here.

I know we have had conversations in the past, and there is some of these issues I will bring up later, but I think the sentiment that has been discussed here is that we know we need more power, we know we need more primary sources, we know that baseload capacity is important. That is important in my district. I represent the Permian Basin. There is a lot of requirements that are continuing to increase for electricity there, whether it be the production of hydrocarbons or data centers or just normal life.

And so, when you look at that, I think the first question for you all deals with the processes, the business model, the licensing of these microreactors, of, you know, the whole value chain. Are we operating at the speed of relevancy? Are we actually getting to the point?

And I don't think, you know, when you look at industry, they need stuff now. Sixty days, six months, or sixty months

-- we need to be in the days range. And so, Chair, I will start with you. Tell us about the business model. Tell us where we are on operating and licensing at the speed of relevancy, because we have got to compete around the world.

*Mr. Hanson. Yes. Thank you, Congressman.

We are leaning into this area from a regulatory standpoint. We have got a policy paper in front of the Commission right now that looks at how to adapt our existing regulations, just what we can do today, with some basic policy changes to adapt to the business model.

As you know, you know, there is a significant interest in the Permian Basin for oil and gas production alone in these microreactors and deploying them, and the factory production of these that could be as quick as, you know, one a month or one every two months. And so staff came to us and said, "Look, we can accommodate some of this under our existing regulations in the following ways. Hey, what do you think?'' And that is under consideration now.

But we have got the next paper, actually, from the staff that would kind of move us along that next chain. And so I can tell you this is an area of interest and focus for the

Commission. We want to make sure that we are being flexible. We don't want to lead anybody down the garden path either, and make sure that we have got -- we are making some sustainable decisions in this way so that business can develop the way it wants to.

*Mr. Pfluger. Well, I want to advocate for companies like Shepherd Power that have recently sent a letter that, obviously, it is important that they -- we are making billions of dollars of investments right now as a country, and we need that framework to operate at the speed of relevancy. And so I can't advocate enough to do that.

Likewise, when you look at our ability to export, I mean, we have traveled into Eastern Europe, specifically into the Czech Republic and Poland. The chair of this full committee led a CODEL there last year, and you see that they are trying every single day to add to their baseload power. The export market just in the next 10 years -- I mean, you guys know this better than anybody -- we are talking 600, 700, $800 billion, but we are not competing with China and Russia right now because they are out there selling their technology.

And I want to make sure that on the export, are we set up -- and I will go to you, Commissioner Wright -- are we set up right now to deal with export licenses to get to our allies and to add to their capability for baseload power?

*Mr. Wright. Thank you for the question. So I believe we can do it, yes, but we have got to have stuff to sell that is licensed and certified, right? And I think that we -- so we have got to provide that pathway right away. We have got to make it happen. Again, strike zone over home plate, the safety strike zone. We have to maintain that. But we have got to get these people through the process.

*Mr. Pfluger. And do we think that there are areas that can be made more efficient that the four of you have direct responsibility over that you can affect right now?

*Mr. Wright. I believe we can, and we have started with the appointment of a new EDO that is going to be the change agent and lead that change that the Commission is trying to focus on. And we are going to drive that change all the way down.

*Mr. Pfluger. This is a national security issue. All over the world, when we hear from our partners, our allies,

and countries who may not even be at that status, they say, "You know, you tell us not to engage with China on Huawei and ZTE for telecommunications, but you offer us no alternative.'' Likewise, Westinghouse and some of these companies, they do have products, and we can export, and we can be a part of the solution. But I am asking you all to be a part of that. And if you don't have the authorities that you need to do that, come back to us.

Thirty seconds left. I voiced previously my concerns about interim storage. It affects my district. It affects the Permian Basin. We have had the geological discussion already. Do we believe that the process now engages communities that will highlight those safety issues -- Commissioner Caputo, and I will just keep going down the line -- because that is a big deal for interim storage.

And I can't agree more with my colleagues on the other side of the aisle. We need a permanent site. I think I know where that is.

Over to you.

*Ms. Caputo. Well, "permanent site'' is a policy issue for Congress.

Certainly, during the process of licensing such a site, there are multiple opportunities for public engagement and public input. So clearly, we have communicated to the best of our ability and, obviously, the feelings of the community and the state are clear. So this is a matter pending for consideration before the Supreme Court. So I really would hesitate to comment much further.

*Mr. Pfluger. Mr. Chairman, I yield back. Thank you.

*Mr. Duncan. The gentleman yields back. I will now go to Pennsylvania, Dr. Joyce, for five minutes.

*Mr. Joyce. Thank you, Chairman Duncan and Ranking Member DeGette, for allowing me to waive on to today's hearing, and thanks to our commissioners for coming.

Nuclear power currently provides approximately 30 percent of the electricity that is utilized in my home state of Pennsylvania, and I am excited about the interest in Pennsylvania's existing nuclear fleet. Amazon is looking to build data centers near the Susquehanna Steam Electric Station, and there are even talks of restarting the recently-retired Three Mile Island plant. This interest is also driving utilities around the country to seek relicensing for

their reactors to operate for 80 years. All of this interest shows that there is a great market potential for the deployment of advanced nuclear power.

By taking the clean, safe, and reliable traits of large-scale nuclear and shrinking the size, small modular reactors and micro-reactors can provide energy to a new market of end users. Data centers and AI are expanding rapidly in places like Pennsylvania and Virginia. They will be critical components of advanced economics moving forward. They are also incredibly energy intensive, and are causing the largest significant increase in demand from our grid in decades. Nuclear can and should be the answer for the reliable energy that these new data centers need.

Earlier this year I visited a Westinghouse facility in Pittsburgh, where the company is using their long history of innovation to make widespread availability of microreactors a reality. Westinghouse has transformed an old steel factory in Pittsburgh into a manufacturing facility for this new technology, bringing family-sustaining jobs back to Pennsylvania.

We need to do everything that we can to enable this

innovation. If current regulations for nuclear waste are a hindrance for this new technology, we need to be able to have discussions on how we can safely reform them to allow advanced nuclear to thrive.

Chair Hanson, the Nuclear Energy Institute sent a letter to the Office of New Reactor Regulation on May 31 with a concept paper for regulating rapid, high-volume production of microreactors in remote locations. This will require the Commission staff to think outside of the box. The paper identified 31 regulatory topics that would need to be addressed to enable this new approach to regulation. In light of what is necessary to meet these new business models, what could revolutionize the deployment of nuclear technology, and what needs to change at the staff level to get this work completed?

*Mr. Hanson. Congressman, thank you.

As I mentioned to Congressman Pfluger, this is an area of, I think, of great interest to -- across the Commission. There are a couple of things, I think, and I put them in three buckets, if you will. First is policy changes that the Commission can make itself. Then there is a potential for

rulemaking. There is a provision in the ADVANCE Act that directs us to look at a microreactor-specific rulemaking that we can start working on now. And then there are potentially changes to the Atomic Energy Act itself.

For example, there is a 60-day hearing notice requirement for the deployment of any new reactor. But if you have a reactor that is rolling off an assembly line in timeframes that are shorter than that, then how does that provision get implemented? I think that is just one example of potentially other issues that may need to be addressed, and I think we should proceed with the issues that the Commission can tackle itself now, but then work with the Congress going forward on any other changes that are needed.

*Mr. Joyce. Well, let's continue that, because I think you bring a great discussion point into this.

Another NEA letter on May 8 of this year highlighted a recent agency Differing Professional Opinion, a DPO, which took nearly 950 days to resolve and delayed efforts to deploy Accident Tolerant Fuel, a critical advancement for safety. The recently enacted ADVANCE Act, which we have all been referencing, directs the NRC to fix this broken process.

Chair Hanson, what does the slow DPO process signify about leadership and management's ability to ensure NRC performance that doesn't hinder the benefits of nuclear technology?

*Mr. Hanson. Yes, well, obviously, Congressman, we shouldn't have a 950-day DPO process. Differing Professional Opinions and the accommodation of those is critical to nuclear safety culture, but we have to have a process that adjudicates those, addresses those quickly and efficiently in one way or the other, so that the agency can move on with a clear decision. And it is incumbent that the Commission set expectations for senior leadership that that process reform takes place.

*Mr. Joyce. And I think that -- I really want to acknowledge you recognizing that a 950-day resolution is inadequate and unacceptable, and your leadership in this regard is paramount to turning this around.

Mr. Chairman, again, I thank you for allowing me to waive on, and I yield the remainder of my time.

*Mr. Duncan. The gentleman yields back.

We generally don't let Senators participate in

committees, but -- not sworn in yet. The gentleman from Utah, Mr. Curtis, is recognized for five minutes.

*Mr. Curtis. Thank you, Mr. Chairman. Your lips were moving, but I couldn't really hear what you said.

[Laughter.]

*Mr. Curtis. I don't need to tell all of you the initial licensing from the NRC requires significant resources, financial and other resources, which can be challenging for smaller innovators. That is why I was really pleased that my bipartisan Prize Act was included in the ADVANCE Act and signed into law this month. I appreciate the work of my friend, Congressman Tonko, in co-leading this legislation, and look forward to working with the NRC on its implementation.

In short, the law will cover NRC fees for the first licensed and operational reactors in certain categories, so people who are cutting new ground and trying to innovate. This will incentivize quality applications and make it easier to deploy innovative technologies.

Chair Hanson, could you just comment briefly on how we get these innovators off the ground, and is this a good idea

to help them?

*Mr. Hanson. Yes, thank you, Congressman, and thank you for that provision. I think it really strikes the right balance.

It is important for applicants to have some skin in the game, I think, and to ensure high-quality applications. And yet, where we can, we should be able to reduce the costs, as well, so that we are not an impediment to that innovation and those new and smaller movers in the market.

*Mr. Curtis. Thank you. And I am sure it is not lost on any of us that nuclear has zero emissions, and is something that we all want to move forward to. What steps can we take to expedite permitting responsibly to bring more of these projects online?

And how does Congress work with you to move that process, to be quicker?

*Mr. Hanson. Yes, thank you. I think there are some policy changes, and there are some process changes. We have made some policy changes already in -- at the Commission in the last year. We mentioned the mandatory hearing process in the course of this hearing. Part 53, the new regulation for

advanced reactors, is a risk-informed and much more flexible approach to this, but also things like physical security, siting guidelines, emergency planning zones, et cetera, to really adapt to the new reactor landscape.

In terms of the reviews themselves, then we are talking about a core team approach, pre-application engagement, rigorous project management, et cetera, to ensure the timeliness and that the reviews are, frankly, risk-informed and efficient in the way that they should be. And we are seeing some success, tut I think we have a ways to go in this, too.

*Mr. Curtis. Yes, I get it. The balancing act is important and difficult, and we can't compromise safety. But at the same time, we have got to get moving and figure out how to do this quicker.

*Mr. Hanson. Indeed.

*Mr. Curtis. Can you also just comment on keeping our existing fleet operating, what you would like to see and what we need to do to keep that existing fleet operational longer?

*Mr. Hanson. Well, I think continuing to improve the efficiency of the subsequent license renewal process -- that

is, to get those reactors licensed out to 80 years that want to do so, as well as the ones that want to operate out to 60 years, the provision in the ADVANCE Act about the reactor oversight process, I think, is important, as well, getting our -- getting the band back together on extended power uprates, and making sure that that process is efficient when those applications start to come in, as well as other things.

I think overall, from a strategic standpoint, the thing that I emphasize with the staff is we have been in business now for 50 years. We have learned a lot of things, and it is incumbent on us to use that knowledge to move forward and to not do things the way we have always done them.

*Mr. Curtis. I appreciate that. I think I would echo some of my colleague's words, which is we desperately need you to be successful, and we desperately need the industry to be successful. There is just no question the energy demands are such that without nuclear, and a lot of nuclear, I don't see how we are going to meet our energy goals, I don't see how we are going to meet our climate goals. So I appreciate all of your work and appreciate all that you are doing to innovate and keep this ball moving forward.

And with that, Mr. Chairman, I yield my time.

*Mr. Duncan. The gentleman yields back. I now go to Maryland's Mr. Sarbanes for five minutes.

*Mr. Sarbanes. Thanks very much, Mr. Chair, thank you all for being here today.

I am pleased that the committee has been working to support the development of advanced nuclear reactors, the next generation of our nuclear fleet that will help meet our nation's energy demands. These reactors, as you know, are poised to play an increasingly important role in our domestic energy production portfolio, but their successful deployment is contingent upon access to a well-trained domestic workforce. To meet the industry's growing technical, legal, safety, maintenance, and regulatory demands, we have to ensure that we are facilitating a pathway to train the highly-skilled professionals who will step into these roles.

You may have touched on this already; I apologize if that is the case. But Chair Hanson, I was encouraged on this front to read in your testimony about the Commission's request to support the University Nuclear Leadership Program which provides grants to institutions to foster education in

nuclear science and engineering fields ranging from R&D to scholarships to faculty development. Could you describe some of the benefits you anticipate can result from the nuclear energy traineeship program established under the recently enacted ADVANCE Act?

And how will these complement the existing University Nuclear Leadership Program?

*Mr. Hanson. Thank you, Congressman, very much, and thank you for that provision on the traineeship program itself.

You know, our University Nuclear Leadership Program is often focused at nuclear engineering, you know, some of the bigger nuclear engineering programs in the country or universities that have played a historical role in the nuclear energy landscape. But often times an unappreciated or under-appreciated skill set that is required for nuclear is, for instance, certified health physicists and radiation protection personnel. And often times they are -- you know, there isn't necessarily a lot of funding or academic programs at these bigger universities.

And so what this does, in my book, is really expand the

aperture of things that the NRC and potentially DoE, in partnership with other parts of the government, can support in developing the nuclear skill sets that are needed for the future, both for the NRC but also kind of for the broader nuclear ecosystem.

*Mr. Sarbanes. Are there other gaps you see in creating a domestic nuclear workforce that we could be helping you all address?

*Mr. Hanson. Well, I think this fits in quite nicely. With the university program we re-established our minority-serving institution program. Again, a lot of schools that don't necessarily have nuclear engineering programs, you have the traineeship part that can focus on the skilled workforce, you know, welders carpenters, et cetera.

So I think we should take the opportunity to implement this, see how it fits together, and then see if there are any gaps. And I would be happy to work with you in the future on that.

*Mr. Sarbanes. Great. I mean, it is a very innovative approach. I don't know of an industry that isn't dealing with workforce shortages of one kind or another along the

skill spectrum, so to have a special initiative to address that, I think, is really, really important.

Did anyone else want to comment on that?

Sure.

*Ms. Caputo. This university program has a really long history, and really originated from the need to sustain university programs like the chairman focused on, nuclear engineering departments, et cetera. But it really was an outgrowth of a DoE initiative to track how many programs existed and how many students were choosing certain fields and actually yielding graduates. And so we haven't seen that level of tracking of positions for quite some time.

And I think it is -- with the growth in industry that we are -- that we expect to see, and the nature of the competition in the workforce and other opportunities, it might be useful to rethink tracking important fields, and seeing whether or not there is a growth in enrollment and graduates that are going to be necessary to power these industries.

*Mr. Sarbanes. So that is important data collection that needs to be done, yes.

*Mr. Wright. Yes, thank you. This is really an important area, because it is not just universities, right?

I mean, a lot of the people that we are going to need in some of these areas come from trade schools. They could come from two-year institutions. And we have already spoken about, you know, historically Black colleges, minority-serving institutions, and the four-year programs that have -- that are established already.

But in areas of HPs, and welders, and just builders, the people who need those core trade skills, and then -- but see then you got the people who are going to be doing the bookwork, and the accountants, and stuff like that. They are not all going to come from a university program, and I think we have got to really build that up and recognize that through working with industry to assess and identify those areas.

*Mr. Sarbanes. It is really all hands on deck --

*Mr. Wright. All hands on deck.

*Mr. Sarbanes. -- is what you are describing. So thank you all very much. I appreciate it.

I yield back.

*Mr. Duncan. The gentleman's time has expired. I will now go to Mr. Balderson from Ohio.

*Mr. Balderson. Thank you, Mr. Chairman. Thank you all for being here today.

Commissioner Caputo and Commissioner Wright, I will direct my first question to you both. We have held numerous hearings and had many discussions in this subcommittee regarding the increasing demand on our electrical grid and concerns with resource adequacy and long-term grid reliability. I think the ADVANCE Act shows clear, bipartisan support for the new nuclear energy from this committee and Congress, as well, as a whole.

However, given the amount of reliable generation that our grid operators have shown are at high risk of early retirement, it is important the NRC also support and protect our existing nuclear facilities, as well. I know we have discussed this a little bit, but how will the ADVANCE Act or other NRC initiatives support existing nuclear generation?

Ladies first.

*Ms. Caputo. Well, I think one thing that really brings it home for me is that there is a title in the bill that

says, "improving Commission efficiency,'' and that, I think becomes an important starting point. Improving efficiency, whether it is in regards to power uprate reviews to increase power output of existing plants or the efficiency of license renewal to extend the life of existing plants, we need to be executing those reviews efficiently and predictably to make sure that these assets are able to continue operating.

*Mr. Balderson. Commissioner Wright?

*Mr. Wright. I agree with everything that Commissioner Caputo has said.

We have also got to challenge ourselves to do a better job, set some goals, stretch goals, you know, and adopt metrics that are going to matter for us going down the road. We have a huge opportunity. This is a new day. And the ADVANCE Act, what you have done, is going to help us. So we thank you.

*Mr. Balderson. Thank you.

Ms. Caputo, go ahead. I was going to come back to you, too, but go right ahead, ma'am.

*Ms. Caputo. And just to add, too, to what Commissioner Wright was saying, part of this efficiency is having the

right processes, and that the processes are efficient, and having the right people in place with the skills to execute the review.

But there is also a requirement here for leaders in the agency to act with a sense of urgency and demonstrate that sense of urgency so that the staff recognize, yes, the safety must come first, but the decision needs to be efficient and predictable.

*Mr. Balderson. Okay. And you talked a little bit about it before, Commissioner Caputo, but the license renewal in your testimony that you spoke of, can you expand a little bit on how the committee would play a role in this?

*Ms. Caputo. How the Commission will play a role?

*Mr. Balderson. Yes.

*Ms. Caputo. Well, the Commission plays a role -- I guess I would start from probably a budgeting position. We need to make sure that we are budgeting adequate funds for license renewal reviews. The industry certainly has indicated that they expect a lot of subsequent license renewal to come in. Over the long term, 90 percent of the existing fleet is expected to come in.

Historically, in reviewing the first batch of initial license reviews, the agency resourced itself to have 12 under review at any one point in time. At this point, the information we have been given by the staff suggests that -- it suggests a target of six. I think we need to focus on not only making these reviews more streamlined, but also acting with an expectation that we are reviewing 12 at a time to ensure that we will be able to meet the industry's requirements as we go through these reviews. They should be -- this batch should be considerably more efficient than initial license reviews.

The issue with license extension has to do with aging management of components that aren't routinely or periodically swapped out. And so the aging management programs that were reviewed and approved and inspected for the first initial review -- first initial extension are in place. So the nature of what we should be reviewing for a second license extension really should be focused on anything new and unique to that 20-year time span, because much of the infrastructure for aging management, both from a utility program standpoint and a regulatory standpoint, already

exists.

*Mr. Balderson. Okay, thank you. But I also am going to call you -- from a committee standpoint, what can we do also in this process for licensing renewal?

And we are down to 15 seconds, please.

*Ms. Caputo. Hold us accountable for results. We need to have metrics in place, but we need to actually execute effectively. And that is going to take a leadership focus, I think, to really communicate that these need to be done. We have got a number of applications that have not been executed in a timely fashion, and we need to correct that, finish the ones that we have underway so that we are ready for the ones that are going to come in.

*Mr. Balderson. Okay. I appreciate that answer. Thank you very much.

I yield back, Mr. Chairman.

*Mr. Duncan. The gentleman yields back. I now go to the gentlelady from Iowa, Mrs. Miller-Meeks, for five minutes.

*Mrs. Miller-Meeks. I thank you, Mr. Chairman, and thank you for allowing me to waive on to this subcommittee

hearing today.

Interestingly enough, my father, who was a career Air Force-enlisted, was part of taking offline a nuclear power plant in Fort Belvoir, Virginia, Sundance, Wyoming, and then at Wright-Patterson Air Force Base. And even prior to me being in Congress, I toured the Duane Arnold Nuclear Power Plant in Palo, Iowa, which was a phenomenal facility now offline, and even at that time, which was over a decade ago, was informed about the workforce challenges and issues for nuclear because we were not training individuals in nuclear engineering or the other workforce needed.

So that when we ramped up -- and as we know and as you all have said -- and Commissioner Caputo, you mentioned in your testimony, and I agree -- that affordable, reliable, clean, abundant energy is the lifeblood of our economy and, by all accounts, electricity demand -- and this is not new, we have known for at least a decade that energy demand is going up not only in the United States, but all across the world. It is going to continue to grow, and nuclear energy will play a key role in supplying our baseload energy generation moving forward.

I also appreciate your comments about having the right processes and, you know, would wonder, as I was director of the Department of Public Health and we handled nuclear as it comes through the state, introducing Lean Six Sigma into our processes, that that may help in some of the efficiency you are talking about.

Outside of workforce and staffing resources, what do you see as the biggest obstacle to your organizational readiness to license new nuclear infrastructure, including advanced reactor designs and fuel cycle facilities to handle advanced fuel designs for new reactor types? I think you mentioned that, that the efficiencies should increase after the first few licenses.

*Ms. Caputo. Well, like any organization, with practice we should demonstrate a learning curve. I think the challenge for the NRC is we don't always. And some of that may be, I think, attributable to training and personnel, and certainly a sense of urgency on the part of leadership to recognize that subsequent reviews should be getting smoother and more efficient than the first time someone tries a new process. So some of that, I think, gets back to leadership.

Some of it, I think, has to do with training. There was a lot of concern, has been continuing concern with the component of our workforce that is retirement-eligible. At one point it was more than half. Now it is down around a quarter. And with that, in managing that retirement wave, we have hired 600 people. So this is about 20 percent of the agency that has swapped out. And so we are facing -- while we have been blessed and able to hire that many people, we do have, I think, a knowledge management challenge and a training challenge to make sure that we are hiring the right people for the workload that is facing the agency, and that they are trained and ready to execute the reviews that need to be executed.

So it is a leadership focus, but it is also a training and knowledge management challenge.

*Mrs. Miller-Meeks. Yes. Well, certainly, one could say that we are already behind. We are already a decade behind in bringing new energy online, and especially given the EPA's rules on taking power plants offline within eight years, the time it takes to get a nuclear facility ramped up to online.

I will just underscore your point that we hope that everybody in the agency -- new hires, existing hires -- understands the urgency of what we are dealing with to get energy, especially clean energy, demand to meet current demands.

With licensing fees set to comprise a smaller percentage of your budget outlays in the coming fiscal year compared to fiscal year 2024, how does the Commission intend to prioritize licensing work among competing interests to fulfill the congressional directives in the ADVANCE Act, Commissioner Caputo?

*Ms. Caputo. This has been an ongoing challenge, I think, for the agency. We had quite a peak in licensing work, post-Fukushima, that has really waned over time. And yet we have looming on the horizon quite a large opportunity for work. So managing fees and budgeting appropriately has been quite a challenge.

When we budget for licensing work that doesn't come in, it forces us to shift that budget authority into annual fee space, which drives up the annual fees on existing licensees. So it is a challenge for us to manage that. It is something

that we have certainly struggled with. It tends to result in a fair amount of carryover, which we have seen. So we have adequate resources, but we are not necessarily placing our management focus on executing licensing work in a timely way, and I think that is something that we very much need to hone in on and improve so that when this wave of licensing work hits, we have leadership and workforce trained and ready to act in a very efficient way.

*Mr. Duncan. The gentlelady yields back. I want to thank all the commissioners for being here today.

As you see the waive-ons, there is a lot of interest in this topic, and members may have additional written questions for you all.

I remind members they have 10 business days to submit additional questions for the record, and I ask the witnesses to do their best to submit responses within 10 business days.

I ask unanimous consent to insert in the record documents included on the staff hearing documents list.

Without objection, that will be the order.

[The information follows:]

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*Mr. Duncan. And thanks to all the staff for being here, the interest in this hearing. And with that, we will stand adjourned.

[Whereupon, at 1:26 p.m., the subcommittee was adjourned.]