Diversified Reporting Services, Inc.

RPTS NOBLEZA

HIF132030

MODERNIZING HYDROPOWER: LICENSING AND REFORMS FOR A CLEAN ENERGY FUTURE

THURSDAY, MAY 12, 2022

House of Representatives,

Subcommittee on Energy,

Committee on Energy and Commerce,

Washington, D.C.

The subcommittee met, pursuant to notice, at 10:33 a.m., in Room 2123, Rayburn House Office Building, Hon. Bobby Rush [chairman of the subcommittee] presiding.

Present: Representatives Rush, Peters, McNerney, Tonko, Schrier, DeGette, Butterfield, Matsui, Castor, Schrader, Kuster, Pallone (ex officio); Upton, Burgess, Latta, Griffith, Johnson, Bucshon, Walberg, Duncan, Palmer, Lesko, Pence, Armstrong, and Rodgers (ex officio).

Staff present: Waverly Gordon, Deputy Staff Director and General Counsel; Tiffany Guarascio, Staff Director; Perry Hamilton, Clerk; Zach Kahan, Deputy Director Outreach and Member Service; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Mackenzie Kuhl, Press Assistant; Elysa Montfort, Press Secretary; Tyler O'Connor, Energy Counsel; Lino Pena-Martinez, Policy Analyst; Kaitlyn Peel, Digital Director; Kris Pittard, Policy Coordinator; Kylea Rogers, Staff Assistant; Medha Surampudy, Professional Staff Member; Caroline Wood, Staff Assistant; Tuley Wright, Senior Energy and Environment Policy Advisor; Kate Arey, Minority Content Manager & Digital Assistant; Sarah Burke, Minority Deputy Staff Director; Brandon Mooney, Minority Deputy Chief Counsel, Energy; William Clutterbuck, Minority Staff Assistant/Policy Analyst; Theresa Gambo, Minority Financial & Office Administrator; Jack Heretick, Minority Press Secretary; Nate Hodson, Minority Staff Director; Sean Kelly, Minority Press Secretary; Peter Kielty, Minority General Counsel; Emily King, Minority Member Services Director; Bijan Koohmaraie, Minority Chief Counsel, O&I Chief Counsel; Jerry Couri, Minority Deputy Chief Counsel, Environment; Clare Paoletta, Minority Policy Analyst, Health; Olivia Shields, Minority Communications Director; Michael Taggart, Minority Policy Director; Everett Winnick, Minority Director of Information Technology; Peter Spencer,

Minority Senior Professional Staff Member, Energy; Mary Martin, Minority Chief Counsel, Energy and Environment; and Michael Cameron, Minority Policy Analyst, CPC, Energy, Environment.

*Mr. Rush. The hearing is now called to order. The Subcommittee on Energy will now come to order. Today the subcommittee is holding a hearing entitled "Modernizing Hydropower: Licensing and Reforms for a Clean Energy Future.'' Due to the COVID-19 public health emergency, members can participate in today's hearing either in person or remotely via online video conferencing.

In accordance with the updating guidance that has been issued by the attending physician, members, staff, and members of the press present in the hearing room are not required to wear a mask. For members participating remotely, your microphones will be turned -- will be set on mute for the purpose of eliminating inadvertent background noise. Members participating remotely will need to unmute your microphone each time you wish to speak.

Please note that once you unmute your microphone, anything that is said in Webex will be heard over the loudspeakers in the committee room and subject to be heard by the livestream and also by C-SPAN. Given that members are participating from different locations at today's hearing, all recognition of members such as for questions will be in order of subcommittee seniority. Documents for the record can be sent to Lino Pena-Martinez at the email address that we provided to all the staff. All documents will be entered into the record at the conclusion of -- of

the hearing. That said, the chair will now recognize himself for five minutes for the purposes of an opening statement.

STATEMENT OF THE HON. BOBBY RUSH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

*Mr. Rush. Again, good morning to each and all, everyone, all and all. Today's subcommittee hearing is on modernizing our hydropower regulatory landscape. Historically, this has been an issue where members on both sides of the subcommittee and of our full committee that we found ways to work in unison. Four years ago, we all worked together on a package of bipartisan ideas to reform hydropower licensing.

And today, I look forward to hearing from our witnesses on how those proposals have turned out and what additional improvements might be necessary. Hydropower is a double-edged sword. It represents a wonderful source of zero-carbon electricity and pumped storage can be -- can enable the employment of even more renewable resources on our grid. At the same time, we must seriously reckon with the impacts of hydropower generation on the rivers and the ecosystem that dams are built within and the fish and the plant life that depend upon those rivers.

In short, this is, indeed, a complicated issue, one deserving of this subcommittee's attention. I do not want to recognize -- I do want to recognize the extraordinary background for today's hearing. For nearly four years, the

hydropower industry has met together with the Indian tribes along with environmental communities in what is called the Uncommon Dialogue process to work in order to create a legal framework that is acceptable to all parties.

This is, indeed, unprecedented in the history of the hydroelectricity industry in this country. And I want to thank all the stakeholders for their hard work over the years and for their unyielding commitment to the integrity of this process. Part of today's hearing is to examine this very network, this framework, taking seriously both its strength and where it needs improvements. Particularly of interest to me is the fact that this framework will finally recognize the sovereignty and the agency of the Native American tribes and allow these very tribes to advance and to advocate for themselves rather than operate under the outdated, antiquated colonial assumptions that the Department of the Interior sufficiently knows what is best for the tribal community when FERC-licensed projects coincide with tribal trust land.

It seems to me that any serious attempt to reform our hydro laws must codify the right of tribes to have a seat at the table when projects impact their lands. To do otherwise will -- is unconscionable and absolutely not according to our noblest and highest standards. With that said, I'm looking forward to today's hearing and to a thoughtful

discussion around needed reform to hydroelectric section and the pros and cons of the Uncommon Dialogue proposal.

[The prepared statement of Mr. Rush follows:]

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

*Mr. Rush. I now yield for five minutes to my good friend and colleague, the ranking member from the great state of Michigan, Mr. Upton, for five minutes to make an opening statement.

STATEMENT OF THE HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

*Mr. Upton. Well, thank you, my friend, Mr. Chairman, and thanks to our witness as well. Some came all across the country for appearing before us today, so thanks for that. I do look forward to today's hearing to explore opportunities to improve the permitting process for hydropower. So important. It has been almost four years since this subcommittee held a hearing on FERC licensing reform, and a lot has happened since then.

Leader Rodgers' bill, the Hydropower Modernization Act of 2017, passed the House with strong bipartisan support. A number of Energy and Commerce hydro bills became law as part of the America's Water Infrastructure Act of 2018, including Dr. Bucshon and Mr. Griffith's bill to establish a two-year licensing process, a shot clock for nonpowered dams and closed-loop pumped storage projects, Mr. Hudson's bill to expedite the approval for conduit hydropower.

These recent accomplishments are a testament to the importance of hydropower as part of our all-of-the-above approach to energy policy. I will remind everyone that Republicans are eager to get to work to conduct oversight of the laws that we passed in 2018, four years ago, and pick up where we left off, particularly with Leader Rodger's

comprehensive hydropower reform legislation that passed the House.

The regulatory environment for hydro has become increasingly challenging. Licensing new hydropower facilities and relicensing existing facilities requires extensive consultation with multiple federal, state, and local government entities. Sometimes, the process takes years, costs tens of millions of dollars.

While project developers can typically site and construct wind, solar, and natural gas generation in maybe two or three years or less, it sometimes might take a decade to relicense existing dams and more complex hydro projects. In many ways, licensing challenges are limiting hydropower's potential for sure. Hydro is among the cleanest, most reliable, most affordable energy sources in America, and we need to build on that. Hydro is a baseload power available anytime you need it, even when the sun isn't shining or the wind stops blowing.

Not many folks think of hydro as an emerging technology, but hydro is going to play an even bigger role in the next-generation grid. Conventional hydro and pumped storage hydro can help stabilize the grid to integrate weather-dependent and solar and, yes, batteries. Hydro can also provide that black start capability so that we can restart the grid in the event of a large-scale emergency

power outage. According to DOE, hydro generation could expand by perhaps as much as 50 percent by 2050. But Congress has got to act.

Both the existing hydro fleet and the new hydro generation projects are at risk due to inefficient relicensing process and because some of the more radical environmental groups have become -- to advocate for the removal of dams. Hydro is also disadvantaged by state laws that fail to recognize the clean and renewable attributes of hydro and by the federal tax code that favors wind, solar, and batteries.

If one thing is clear, antiquated FERC licensing process for hydro is a significant barrier to expanding hydro production. Congress has got to strengthen the lead agency role of FERC and hold coordinating agencies to strict timelines. Disputes need to be resolved quickly and decisively so that permits don't get held up in the courts for years.

This committee should start by conducting oversight of the two-year licensing programs for pumped storage and nonpowered dams that we passed into law. Our understanding is that these programs have failed to meet the objectives that Congress laid out. And if it is true, we should think about ways to amend the programs to make them work. So I am pleased to see that there is broad interest in an expediting

licensing program for hydro. I look forward to hearing from the supporters of the Uncommon Dialogue to understand how the reforms will, in fact, improve the process. But I would note that I have some concerns that the Uncommon Dialogue proposal might expand the environmental review with an oversight -- oversized focus on climate change and mitigating past effects that could, in fact, occur decades ago when the original dam was constructed.

I also have some concerns with the Uncommon Dialogue's embracing of offsite environmental mitigation and dam removal, which can be a slippery slope. You know that. There are also questions about whether the expanded interagency and tribal consultation will, in fact, expedite the process or would it perhaps lead to additional litigation and delay. So Mr. Chairman, thanks for the hearing. I look forward to what could be a very strong bipartisan track on hydro. And with that, I yield back.

[The prepared statement of Mr. Upton follows:]

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

*Mr. Rush. The gentleman yields back.

The chair now recognizes Mr. Pallone, the chairman of the full committee, for five minutes for his opening statement.

STATEMENT OF THE HON. FRANK PALLONE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

*The Chairman. Thank you. Thank you, Chairman. Today, the committee continues its work to move towards a clean energy future. Hydroelectric generation is one of the oldest sources of renewable energy, and it remains a reliable source of carbon-free power and grid stability. Those important benefits, however, can also come with a very high cost. Hydroelectric works and dams can cause significant environmental impacts, interfere with the use of tribal lands, and decimate fish and wildlife.

So we must find a balanced approach to hydropower development and modernization while still protecting fish and wildlife populations, water quality, recreational activities, and the role of tribal nations. So last year, hydropower produced more than 6 percent of the nation's electricity. Several states, including Washington, Oregon, New York, and California, particularly rely on hydropower both to keep the lights on and to maintain grid reliability.

And as a carbon-free resource, hydropower also plays an instrumental role in combating the climate crisis. Despite its current role in our energy mix, many hydropower projects are nearing the end of their 50-year licenses. The industry has claimed that the ability to license new hydropower

projects or to relicense existing projects has become too onerous. According to hydropower development proponents, hydroelectric generation has the potential to provide an additional 50 gigawatts of carbon-free power, including through the establishment of facilities on nonpowered dams.

But the proponents say this is only possible if Congress reforms the Federal Power Act's licensing framework. On the other hand, environmental groups, recreation enthusiasts and tribal nations have long maintained that the Federal Power Act's protection for fish and wildlife, recreational opportunities, and tribal interests are essential to ensuring the thoughtful licensing and relicensing of hydropower projects.

And weakening those protections could put fish, wildlife, and the $375 billion outdoor recreation economy at risk. So given these competing interests, I commend the Uncommon Dialogue stakeholders comprised of participants from the hydropower industry, environmental groups, and tribes for their truly unprecedented and historic effort to bridge long-standing divides and reach an agreement on reforms to the Federal Power Act's hydropower licensing process.

I am particularly pleased by the provisions that remove outdated paternalistic barriers to tribal nations, acting directly as the conditioning authority for hydropower

projects located on tribal lands. This is a much-needed acknowledgment of tribal sovereignty that I hope we can all support.

Yet while I applaud these efforts, I am concerned that the Uncommon Dialogue agreement proposes to significantly rewrite several seminal resource protection provisions within the Federal Power Act and the decades of case law associated with them. Specifically, I am concerned about the proposal for Sections 4(e) and 18. Those two provisions, along with other long-standing pieces of law the proposal seeks to change, have successfully mitigated damage to and enhanced the value of fish, wildlife habitat, recreation, cultural resources, and flood control for decades.

And so we should only alter them with the greatest of care and caution. That said, we can't ignore the important role hydropower needs to play in a net zero carbon future. And so we must find a way forward together, something that I think members on both sides of the aisle have a strong interest in doing. So with that in mind, I welcome the signatories to the Uncommon Dialogue proposal who are testifying, as well as the other witnesses here today. I look forward to hearing all of your thoughts on the state of the hydropower industry, the current licensing regime, and the Uncommon Dialogue's proposed reforms. I hope this

stream will help us determine whether the Uncommon Dialogue's approach achieves the right balance between development and conservation is necessary to serve as a basis for eventual bipartisan consensus legislation to modernize the licensing process.

And with that, I yield back the balance of my time, Mr. Chairman.

[The prepared statement of The Chairman follows:]

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

*Mr. Rush. The gentleman yields back.

The chair now recognizes Mrs. McMorris Rodgers, the ranking member of the full committee, for five minutes for the purposes of her opening statement.

STATEMENT OF CATHY MCMORRIS RODGERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

*Mrs. Rodgers. Thank you, Mr. Chairman. In the Pacific Northwest, we are blessed with abundant, affordable, and clean hydropower -- hydroelectric power. Hydropower has served our industrial backbone in Washington State for over 80 years and now promises to serve an innovative future, ensuring a reliable, secure energy system for many decades to come.

I have heard from companies like Diamond Foundry and Zilla, who are locating their facilities in Washington State. And a big reason why is our affordable, reliable hydropower. This is all possible because, unlike weather-dependent wind and solar sources, hydropower provides the firm and dispatchable energy that is vital for reliable and resilient electric supply.

At present, hydropower generation accounts for over 6 percent of U.S. electricity, almost 40 percent of our nation’s reliable renewable generation. A Department of Energy report found that U.S. hydropower production could increase 50 percent above current levels by 2050 from upgrading existing hydropower facilities and adding generation capacity to nonpowered dams. Only 3 percent of the 90,000 dams in the United States produce electricity.

There is great potential for new hydropower generation. Yet we must confront challenges. For example, many federal dams in my state and around the country have been in service for decades, and while they can operate safely for many years to come, some are calling for dam removal. Communities with critical energy resources like the Lower Snake River Dams operated by the Army Corps of Engineers face calls to dismantle these clean energy sources for the sake of agendas that fail to prioritize reliable delivery of power for people.

When these agendas undermine affordable, reliable delivery of energy and power, serious harms to public health and safety can follow. The first step involves continued committee oversight and work to update the licensing and relicensing process overseen by the Federal Energy Regulatory Commission under the Federal Power Act. FERC regulates nonfederal hydropower projects, which include about 2500 dams and account for one half of hydropower generation in the nation.

Previous work by Energy and Commerce led to the enactment of some bipartisan reforms into law in 2018. These included provisions to modernize hydropower development and existing nonpowered dams and to expedite licensing for pumped storage and other innovative technologies. More work is needed.

The licensing process for traditional hydropower continues to take considerable time and expense. A recent DOE report found it takes, on average, five years to obtain an original license, 7.6 years for relicensing. And some complex projects can take more than a decade. At the same time, the number of existing hydropower projects that will require federal relicensing is set to double in the next decade.

In 2017, the House came together, and we passed legislation that I led to improve the process with strong bipartisan support. And while we made good progress in the Senate, we didn't get across the finish line. We should conduct oversight of recent reforms and continue to work to strengthen licensing and remove unnecessary barriers to hydropower technologies.

My updated Hydropower Clean Energy Future Act, H.R. 1588, provides the path to continued reforms, and I look forward to working with my colleagues to advance this through committee. In the meantime, any discussion of licensing reform is a step in the right direction. So I welcome today's hearing to review the Uncommon Dialogue proposal and applaud the participants' desire to work on hydropower relicensing reforms. I do believe it's important that we take a deliberate approach. The Uncommon Dialogue proposal includes new requirements for climate modeling,

expanded environmental reviews, embracing offsite environmental mitigation and dam removal. It includes changes in the statutory relationship with far-reaching implications between the Department of the Interior and the tribes concerning mandatory conditions for licensing. It includes new licensing terms, which have broad -- may have broad, unintended impacts across all types of infrastructure, permitting and spurn more litigation.

We need to hear from FERC and the resource agencies to understand the impact of these proposals. We, in Congress, must be careful not to attempt to fix problems by layering more bureaucracy or encouraging more lawsuits. I welcome all of the witnesses here today. I'm especially happy that Rich Wallen from Washington State is here testifying on behalf of Grant County Public Utility District. Thank you. I yield back.

[The prepared statement of Mrs. Rodgers follows:]

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

*Mr. Rush. The gentlelady yields back. The chair would now like to remind all the members of the subcommittee that pursuant to committee rules, all members' written opening statement shall be made part of the record. Now it is time for me to welcome, officially, our witnesses for today's hearing. They are, from my left, Mr. Malcolm Woolf, who is the president and chief executive officer of the National Hydropower Association.

Next is Mr. Tom Kiernan -- I think that's right -- the chief executive officer of the American Rivers. Next is Ms. Mary Pavel. She is a partner in -- at Sonosky, Chambers, Sachse, Endreson & Perry, LLC. Welcome. Next with me, Mr. Richard Wallen. He's a general manager and chief executive officer of the Grant County Public Utility Commission.

And finally, there is Mr. Chris Wood, who is the president and the CEO of the Trout Unlimited. I want to thank each and every one of you for joining us today. And we certainly look forward to your expert testimony. At this time, I would like to recognize each witness for five minutes to provide your opening statement.

But before we begin, I would like to explain the lighting system. In front of each of you is a series of lights. And the light will initially be green. Then the lights will turn yellow when you have one minute remaining for your testimony. And if you would, at that time, begin

to wrap up your testimony, that would be important. The light will turn red when your time expires. And we ask you to bring your comments to a halt.

So that said, Mr. Woolf, welcome again, and you are recognized for five minutes for the purposes of an opening statement.

STATEMENT OF MALCOLM WOOLF, PRESIDENT AND CHIEF EXECUTIVE OFFICER, NATIONAL HYDROPOWER ASSOCIATION; TOM KIERNAN, CHIEF EXECUTIVE OFFICER, AMERICAN RIVERS; MARY PAVEL, PARTNER, SONOSKY, CHAMBERS, SACHSE, ENDRESON & PERRY LLC; RICHARD WALLEN, GENERAL MANAGER AND CHIEF EXECUTIVE OFFICER, GRANT COUNTY PUBLIC UTILITY DISTRICT; AND CHRIS WOOD, PRESIDENT AND CHIEF EXECUTIVE OFFICER, TROUT UNLIMITED

STATEMENT OF MALCOLM WOOLF

*Mr. Woolf. Thank you, Mr. Chairman. On behalf of the National Hydropower Association, I am pleased to be here today in support of an unprecedented joint hydropower license reform package. This is a unique moment for at least two reasons. First, never before has a representative of the hydropower industry testified in support of the same hydropower license package with representatives of American Rivers and the Skokomish Nation.

Second, our nation is at the crest of a new wave of hydropower licensing and license surrenders. Roughly 30 percent of the nonfederal fleet is up for relicensing by 2030. That number soars to 45 percent by 2035. With relicensing taking 7.6 years on average and often lasting more than a decade, the need for hydropower license reform has never been more urgent.

There are lots of issues on which me and my colleagues disagree. Yet on this issue, our respective caucuses have been able to build a holistic integrated license reform package that has broad stakeholder support. Our hope is that Congress can take action on such a package this year. This committee has a great track record of working on hydropower license reform in a bipartisan way, most recently, the Hydropower Regulatory Efficiency Act championed by Ranking Member McMorris Rodgers and Representative DeGette and the provisions in the 2018 American Water Infrastructure Act championed by Representative Griffith and Bucshon.

Our joint legislative proposal builds on these efforts while accomplishing many of the items set forth in H.R. 1588, the Hydropower Clean Energy Future Act introduced by Ranking Member McMorris Rodgers, which NHA continues to support. Our joint license reform proposal is the result of several years of discussion through Stanford's Uncommon Dialogue process. NHA believes that this historic proposal will meaningfully improve the hydropower licensing and relicensing process while preserving important environmental safeguards and respecting the rights of tribal nations.

Let me share three takeaways. First, hydropower is an essential part of a reliable clean energy grid. Hydropower currently provides over 6 percent of U.S. electricity

generation, providing reliable baseload renewable power to an estimated 30 million Americans. In addition, pumped storage hydropower provides dispatchable long-duration energy storage, representing 94 percent of all energy storage in the nation. Together, the waterpower industry provides 68,000 good-paying jobs around the country.

As a flexible renewable energy resource, hydropower serves as a force multiplier, balancing variable wind and solar so the lights stay on when the sun goes down and the wind is still. In addition, hydropower plays an often-overlooked role in enhancing system reliability and resilience, providing, for example, 40 percent of the nation's black start capability, which is vital in enabling the grid to restart in the event of a blackout.

Second, new and existing hydropower is at risk due, in part, to the Byzantine licensing and relicensing system. As noted earlier, we are at the crest of a wave of hydropower licensing. At the same time, relicensing takes 7.6 years to complete on average and often takes much longer than a decade. The paperwork costs associated with relicensing typically exceed $10 million with facility upgrades requiring many millions more.

Relicensing an existing facility takes longer than relicensing a nuclear power plant. As a result, a recent industry survey found that more than 40 percent of hydro

owners were actively considering decommissioning a facility. Alarmingly, 58 percent of facilities have submitted license surrender applications to FERC since 2010, including 17 in just the last two years, which brings me to my final takeaway.

Reform of the licensing process is urgently needed. The joint license reform package offers many benefits to the hydro industry, including clarifying mandatory conditioning authority, expedited licensing for nonpowered dams in closed-loop or off stream pumped storage and improved coordination between the various agencies. NHA supports the joint license reform package to advance the renewable energy benefits and storage benefits of hydro power, the environmental and economic benefits of healthy rivers, and the sovereignty of tribal nations. We look forward to collaborating with the committee to enact this proposal this Congress and appreciate your convening today's hearing.

[The prepared statement of Mr. Woolf follows:]

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

*Mr. Rush. I want to thank the witness.

The chair now recognizes Mr. Kiernan for five minutes. Mr. Kiernan, you are recognized.

STATEMENT OF TOM KIERNAN

*Mr. Kiernan. Thank you, Chairman Rush. Thanks to you and Ranking Member Upton and members of the subcommittee. It is a real pleasure to be with you to testify and to share the perspective of American Rivers on the topic of modernizing hydropower. I am Tom Kiernan, president of American Rivers. And our staff have been participants in, and we have been some of the leaders of the Uncommon Dialogue. We have also participated in hundreds, literally hundreds, of hydropower licensing proceedings.

And we have experienced both the best of that process and the worst of that process. The hydropower licensing reform package that we are bringing to you today as a collaboration was born from the encouragement of this committee to seek common ground and to find solutions. Our proposal is an extension of our shared goals of protecting rivers, strengthening tribal sovereignty, and generating renewable electricity that contributes to achieving a 21st Century clean energy grid.

This package is an integrated, holistic proposal that successfully creates common ground by bringing together the different perspectives of conservation, tribal and industry constituencies. It has been carefully balanced to ensure that we do no harm to any interest while creating a win-win-

win for conservation, tribes, and industry. I will focus my testimony today on how our hydropower licensing reform package improves river health in the context of the three crises that we see rivers facing today: biodiversity loss, climate change, and racial and cultural inequities.

On biodiversity loss, since 1970, the world has lost 83 percent of all freshwater species and nearly a third of all freshwater ecosystems. Freshwater species are declining twice as fast as their terrestrial and ocean counterparts. One significant factor driving the loss of biodiversity is the loss of river connectivity. Dams do have significant effects on river ecosystems.

And when they are improperly sited or lack functional fish passage, they can contribute to biodiversity loss. Our licensing reform package addresses this growing issue by requiring FERC to open a rulemaking to add greater specificity and timelines to the license/surrender process for nonfederal dams and with owners that want to remove their dam. Even when all parties agree that a dam needs to be removed, it can take decades to do so.

These proposed changes will help licenses better protect -- predict the time and cost associated with license surrender and make the process more predictable and easier to remove unwanted dams. Removing dams from rivers when they have outlived their useful life opens habitats and

makes it easier for freshwater species to rebound. Second major challenge for rivers is climate change. Extreme weather events are becoming more frequent. And disruptions like the crippling drought in the West make it critically important that we consider climate change when crafting license conditions.

Many licensees already analyze hydrology and how it is changing because of changing climate. But this type of analysis has not yet incorporated into the licensing processes. Accordingly, this package would require FERC, agencies, and federally recognized tribes to consider how project effects may change under a changing climate when developing their license conditions. It also requires FERC to stay abreast of and incorporate the latest science on climate change and analytic tools through periodic technical conferences convened in consultation with Department of Energy. These are commonsense requirements that will promote better decision-making to ensure healthy and climate-resilient rivers into the future.

And the third main challenge is racial and cultural inequity. Reform is needed to achieve the promise of self-determination for tribes. In 1975, Congress recognized tribes as sovereign governments. But the administration of Section 4(e) of the Federal Power Act remains a relic of the pre-self-determination era. More than 45 years after

Congress recognized tribes as sovereign governments, tribal governments must still rely upon their trustee, the Department of the Interior, to intervene on their behalf to protect their resources.

The continued need for an intermediary adds complexity and inefficiency to the licensing process and is an affront to the sovereignty of tribal governments. Our proposal remedies this. In closing, this package is an integrated and holistic proposal that successfully creates common ground among the various interests of conservation, tribes, and industry, and I thank you for the opportunity to testify today.

[The prepared statement of Mr. Kiernan follows:]

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

*Mr. Rush. The chair thanks Mr. Kiernan.

And now, Ms. Pavel, you are recognized for five minutes for the purposes of an opening statement.

STATEMENT OF MARY PAVEL

*Ms. Pavel. Thank you, Mr. Chairman, and members of the committee. My name is Mary Pavel. I am a partner at the law firm of Sonosky, Chambers, Sachse, Endreson & Perry, and I am attorney for the Skokomish Indian Tribe and a member of the tribe. I am honored to be here with my colleagues to support the Uncommon Dialogue and the work that we have all done the last few years to reform and improve the licensing process.

In my written testimony, I told the story of the Skokomish Tribe to illustrate why the Uncommon Dialogue licensing reform proposal regarding 4(e) of the Federal Power Act, which would secure tribes a full place at the table and setting these conditions is not only the right thing to do but also consistent with the federal policy of self-determination and with the Federal Power Act itself.

The Skokomish Tribe's experience with the Federal Power Act and the licensing of the Cushman Hydroelectric Project demonstrates what can happen if tribes are forced to rely on distant bureaucrats in Washington, D.C. In the case of the Skokomish Tribe, the bureaucrats failed to do anything to protect the tribe's reservation. And the Skokomish Tribe bore the cost of that failure for 86 years. With the Uncommon Dialogue proposals in recognizing tribal authority

to impose conditions on federally licensed projects that are located on tribal trust -- will finally animate what the original drafters of the Federal Power Act intended, that while developing hydropower is important for America, it was not to be done at the expense of the trust responsibility to tribes or tribal homelands. I want to thank you for the opportunity to present this testimony and look forward to answering any questions that you may have today. Thank you.

[The prepared statement of Ms. Pavel follows:]

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

*Mr. Rush. The chair wants to thank the witness.

And now, Mr. Wallen, you are recognized for five minutes for the purposes of an opening statement.

STATEMENT OF RICHARD WALLEN

*Mr. Wallen. Chairman Rush, Ranking Member Upton, and members of the subcommittee, thank you for the opportunity to testify on the importance of hydropower. I am privileged to serve our citizen owners as a CEO and general manager of Grant County Public Utility District. Grant is a not-for-profit public utility providing electric power and wholesale fiber service in Central Washington.

Since our founding in 1938, we have been determined to provide our customers with affordable and reliable energy. Our county's need for electricity is growing, and we have a diverse customer base of farmers, irrigators, data centers, and other large industry. We own and operate two Columbia River dams with a combined generating capacity of 2100 megawatts of clean, renewable energy.

Our project is licensed by FERC. While projects of the Federal Columbia River Power System are not FERC-licensed, policies that impact one set of hydropower tend to impact the other. Under the State of Washington's Clean Energy Transformation Act, utilities must provide and make public a clean energy implementation plan with its own targets for energy efficiency and renewable energy.

In April 2008, Grant received a 44-year license extension for our project. Grant was required to use the

traditional licensing process during this time, which we believe created additional bureaucratic burdens, delays, and created uncertainty among stakeholders prior to issuance.

We could have benefited during our licensing process. And as a supporter of H.R. 1588, the Hydropower Clean Energy Future Act, and commends Ranking Member McMorris Rodgers for her consistent leadership on hydropower issues. As a member of the National Hydropower Association, Grant is closely following the development of the hydropower license reform as well. There are components of this effort we see as beneficial as reasonable relicensing timelines and the show-your-work provisions.

The recently completed Columbia River system operational environmental impact statement studied the environmental, biological, power supply, and socioeconomic impacts of the entire federal Columbia River system operations. One of the proposed alternatives was breaching the Lower Snake River Dams. While we recognize some of the removal efforts contemplated under the Uncommon Dialogue are for nonpowered dams, the predominance of dam removal in the dialogue at all is concerning.

The Lower Snake River Dams are built to facilitate fish passage and actually achieve spring juvenile survival rates of 96 percent and summer migrating fish survival at 93 percent. Both meet or exceed performance standards.

Nonetheless, some stakeholders push for removal of the Lower Snake River Dams even though the fish in the neighboring undammed rivers are experiencing similar stresses and the fact that only three of the listed species even migrate up the Snake. The four Lower Snake River Dams are a critically vital component of BPA's low-cost carbon power -- carbon-free power supply.

To remove the dams would result in massive rate increases to regional supply cost, increases in carbon emissions and increased risk of blackouts. Replacement carbon-free resources are not available and cannot be easily or cheaply secured and require overbuild to counteract their intermittency.

Under this future, the Lower Snake River Dams would grow in importance because they can act as giant clean energy batteries, helping fill in these gaps for wind and solar. Hydropower provides dependable and carbon-free generation when we need it and how we need it. While Grant owned and operates its own hydro dams, we are concerned about the impact losing the Lower Snake would have for the entire region.

The Western Electric Coordinating Council, in its 2021 Western assessment of resource adequacy, issued a warning that every region in the Western grid is facing an abnormal risk of blackouts. We are also concerned about the price

impacts, as the BPA has forecasted wholesale price impacts of 50 percent if the dams are removed and replaced with wind or solar plus batteries.

This price hike could impact Grant PUD customers, as we, a public power utility, have rights to BPA-provided generation. In a carbon-constrained world, hydropower is increasingly vital for its emission-free generation, load-following capabilities, grid stability, and integrating -- resources that keep the lights on.

Grant PUD is proud of its role in promoting the modernization of hydropower and thankful for the pioneering spirit exhibited by our founding fathers almost 85 years ago as well as our long-standing relationship with the Wanapum Band of Native Americans as we continue to protect, preserve, and perpetuate their cultural traditions and way of life. I look forward to your questions.

[The prepared statement of Mr. Wallen follows:]

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

*Mr. Rush. The chair wants to thank all of our witnesses.

And Mr. Wood, you are now recognized for five minutes for purposes of an opening statement.

STATEMENT OF CHRIS WOOD

*Mr. Wood. Thank you, Chairman Rush. Chairman Rush, Ranking Member Upton, and members of the subcommittee, thank you for the opportunity to testify today on the issue of hydropower and licensing reforms for a clean energy future. Trout Unlimited is the nation's largest -- excuse me -- trout and salmon conservation organization. We are a nonpartisan organization with more than 350,000 members and supporters, many of whom are from your districts, spread around the country. We have a deep and abiding interest in the relationship among dams, hydropower projects, and trout and salmon fisheries.

Trout and salmon are migratory creatures. When their migratory paths are blocked and the cold water they need warmed too much, they become imperiled. Science and research show how dam construction has caused or contributed to the harm and extinction of many species of trout and salmon in the U.S. Thus, we have a huge stake in ensuring that hydropower is done right and balanced properly with the needs of people and communities who depend on the fish and wildlife resources of our waterways.

While we are passionate advocates for fish, we also see ourselves as problem solvers. We have a long history of engagement in project-specific licensing and in regulatory

and legislative processes, partnering with the tribes, state and resource agencies and, of course, utilities and project developers.

In fact, in 2002, we testified in this same room and worked very hard with the man for whom this room is named, the great John Dingell, prior to passage of the Federal Power Act amendments in 2005. On the ground, we have had many successes and learned some hard lessons. In the late 1990s and early 2000s, we worked cooperatively with the Avista Corporation to restore bull trout and cutthroat trout in Northwest Montana.

We worked with Portland General Electric in the middle of their license to help them voluntarily. They, in fact, came to us, install fish passage to restore salmon and steelhead on the Deschutes River in Oregon. More recently, we worked with Pennsylvania Power and Light to remove two dams and bypass a third on the Penobscot River in Maine. This is a particularly interesting story, as part of our agreement was that all of the lost power would be and it has been replaced. And the fish response has been amazing since those dams came out.

We have seen the process work well. We have seen it work poorly, and we have seen the way in which improvements could be valuable. With this history in mind, TU participated in the Uncommon Dialogue, and we absolutely

applaud the effort and its participants and salute all who are participating in the conversation, especially my friends here from American Rivers, the tribes, and the hydropower industry.

We support many of the concepts included in the package. We support the group's stated goal of advancing mutual interests in a way that does no harm. We support the proposed new tribal authority. We also support providing more resources to state, federal, and tribal agencies participating in listing -- licensing proceedings.

But there are some key aspects of the package that we think are underdeveloped or that may need to be sharpened. For example, we think the modification of mandatory conditioning authorities under Section 4(e) and 18 of the Federal Power Act would benefit from additional review and scrutiny. We urge the subcommittee to continue its engagement with Uncommon Dialogue participants and seek input from additional stakeholders, especially the state and federal resource agencies who will be discharged to implement the changes and to continue to make further improvements to this package through the legislative process. And when those improvements are made, we fully look forward -- or we look forward to fully supporting the legislation. While we have some concerns about some of the details, we intend to continue to work alongside our

colleagues here today as well as with members of Congress to ensure that a final legislative product is successful and allows all stakeholders to move forward together. Thank you for holding this hearing today, and thank you for inviting me to participate.

[The prepared statement of Mr. Wood follows:]

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

*Mr. Rush. Again, the chair want to thank all the witnesses and want to thank Mr. Wood for your testimony. And all the witnesses, we want to thank you for your testimonies. We will now move to the members' questioning. And each member will have five minutes to ask questions of our witnesses. And I will start by recognizing myself.

Ms. Pavel, I want to start by learning about some of the benefits of the Uncommon Dialogue proposal for Native American tribes. In your testimony, you talked about how, even within the last 20 years, the Department of the Interior abdicated its responsibility and acted as a Skokomish Tribe trustee in the relicensing process. Can you talk a little bit about how things would have been different and better and what additional conditions your tribe may have imposed if the Uncommon Dialogue proposal had been logged when the Cushman project was being relicensed?

*Ms. Pavel. Absolutely, Mr. Chairman, and thank you for the question. How would have it been different -- it would have been -- the tribe would have been at the table early on. They would have been at the table with the licensee early on because, as my brother, who is my tribe's chairman at the time, will tell the story, he spent a decade knocking on the doors of our trustee, begging our trustee to get engaged to do something. The first person to open the door for my brother was the State of Washington DEQ, said,

okay, let's talk. Let's have a conversation. And then it was through allies like Trout Unlimited and American Rivers where we were able to bring other political forces to bear because my tribe is just a little tribe, and so we had to bring other forces to bear on our trustee.

But I think that Tacoma would have -- if Tacoma had known they would have had to sit down with us and we were the entity they had to deal with the government, they would have come and sat down with us and worked it out. So we would have -- we would -- that early convening of key stakeholders would have happened if that would have happened. And the kind of conditions that would have gotten imposed, had the tribe had the mandatory conditions, I don't think they are that different than, ultimately, what got imposed as a result of the global settlement that happened after Tacoma -- after the tribe won the lawsuit with Tacoma v. FERC where we sat down and said, "Okay. Let's talk about the resource.''

This is resource management opportunity. Let's talk about -- let's build spillways. We've got to restore our sockeye fishery. Let's build a hatchery. Can we build a hatchery? Let's talk about where the tribe can -- can benefit because we don't benefit from any of that power. That power gets shipped to the residents of Tacoma. As my brother says, when people like to say they create power from

dam, they are not creating power. You are taking power. You are taking energy from our River. But the global settlement that happened with the relicensing allowed the tribe to share in the generation of revenues like if -- because it's on tribal lands, so we get the 4(e) payments.

We became a full partner with the City of Tacoma in the management of this facility and restoring habitat. And if you look at Tacoma's website, they are excited. They love being part of it. We own part of the campgrounds now, so we're present in the recreational ownership of this facility. We talk about these critical cultural sites. And that would have -- what -- the global settlement that ultimately achieved after my tribe basically invested everything we had is probably what would have happened if we had been at the table early. But it would have happened earlier. It wouldn't have taken an additional 30 years. We would have been there earlier, Mr. Chairman.

*Mr. Rush. So you would agree or you -- do you agree that the Federal Power Act, as currently written, is outdated and out of step -- is outdated and out of step with other laws on tribal sovereignty?

*Ms. Pavel. Absolutely, Mr. Chairman. It is out of step. And tribes are some of -- and as you know, Congresswoman McMorris Rodgers knows. Chairman Pallone knows. Many members knows. Tribes have some of the best

resource management data science in the world, especially in the Northwest. And there is no one better to examine the impact of hydroelectric projects on tribal trust lands and how best those resources can be protected than tribal governments. And in this area of self-determination where tribes are managing multimillion dollar federal programs, we are managing and serving in treatment of states under the Clean Air Act, the Clean Water Act. It is time to fully, as I said before, animate the provisions of the Federal Power Act with the tribal governments' voice themselves.

*Mr. Rush. Want to thank -- my five minutes have concluded.

The chair now recognizes the ranking member, Mr. Upton, for five minutes.

*Mr. Upton. Well, thanks again, Mr. Chairman. And thanks for the testimony as well. This is an issue that I would like to think that we can expand hydro, and we can work -- I would like to think we can work in a bipartisan basis to do that. And of course, as I indicated in my opening statement, the concern that many of us have is how did it take so long to get something done.

I would like to think again that we are all on the same page, that we know the importance of hydro. We know the importance not only to the environment but to the communities that have it and the end users that, frankly,

need it in a -- in a big way. So Mr. Woolf, I guess, you know, on your testimony, you indicated that hydro is disadvantaged to other forms of energy, particularly wind and solar. We are all supporters of renewable energy. We want it to work.

But some of us are a little afraid of a system that is being overbuilt for wind and solar. I had one of my Michigan utilities just this week indicated that they would -- to do wind and solar for renewable, it would require, in Michigan, tens of thousands of new acreage that they would have to set aside to do that to be able to hit the targets that they want to and to be able to eliminate some of the coal plants that are currently in use that are scheduled to be phased out over the next number of years.

How long does it normally take FERC from start to finish to issue an original license for a hydro project? You need to turn on your mic. It's the 25 million people that are watching us that want to hear your answer. We can hear you but it's --

*Mr. Woolf. Thank you for your question. It takes way too long to license a hydropower facility. On average, it takes 7.6 years from start to finish. And that is on average. There are many facilities where it takes over a decade, some facilities where it has taken over two decades to get a hydropower license.

*Mr. Upton. So have you seen any impact, any change, since we passed the bill back in -- what? -- 2018? Have you seen any positive movement on that, anyone saying, hey, "Let's get this shot clock started?''

*Mr. Woolf. I wish I could say that those provisions have proven effective. In fact, they have not. Unfortunately, only one facility has come in to seek to use those provisions and was found by FERC to be ineligible. So --

*Mr. Upton. And where was that project? Do you know what state, where it is?

*Mr. Woolf. I am sorry. I do not.

*Mr. Upton. Maybe if you could --

*Mr. Woolf. I can get that for committee.

*Mr. Upton. That would be helpful.

*Mr. Woolf. Yeah.

*Mr. Upton. So one new project in the last four years?

*Mr. Woolf. One project that sought to use it and was --

*Mr. Upton. That sought to use it.

*Mr. Woolf. -- found ineligible by FERC. So not a single facility has been able to use those provisions.

*Mr. Upton. And one of the things, I think, you know, as we thought about this hearing, where is FERC on this? I would like to have FERC come testify and tell us what they

have been doing or not doing. I know they have now got a full commission that's there. But obviously this ought to be a priority as we look at something that doesn't emit or has zero emissions.

I think there is pretty much -- I think there is a hydro facility virtually in every state in the union, every --

*Mr. Woolf. Forty-eight states.

*Mr. Upton. Every state. So there is no reason why we can't expand that. And FERC ought to make this a priority to try and get it done, especially since we are trying to help them do their job with the legislation that we passed in 2018. How long does it normally take -- and again, I -- wind, solar or battery installations. And again, for me in Southwest Michigan, I have seen our utilities come to the plate. I was in Boston over the weekend with my daughter and her -- my grandkids -- I would say -- my wife would say our grandkids. A lot of houses there have the solar panels on. But how long does it usually take to get a permit for one of those alternative forms of renewable energy?

*Mr. Woolf. For a commercial scale renewable system, it is state-regulated. So it varies state by state. In California, for wind, it can take up to three years. If you are in Texas, it could be done in less than a year. It is less than half the time, far, far less than half the time

than a hydropower facility. And one of the reasons why the AWEA law that this committee passed a few years ago has not proven effective is that it starts once -- it excludes from that two-year shot clock any of the pre-application work that needs to be done. And there is usually years of pre-application work, studies and community outreach. None of that is included in that shot clock, unfortunately, as FERC has interpreted it. And that is why the provisions have not proven effective.

*Mr. Upton. So I will just make a little comparison my last 12 seconds. It almost -- so we have a number of dams in Michigan that are a hundred years old. They are not really produce -- it almost seems like it is easier and it takes years to close some of those down than it does to actually create a new one that is even more efficient.

So Mr. Chairman, with that, I yield back.

*Mr. Rush. The gentleman yields back. The chair now recognizes the chairman of the full committee, Mr. Pallone, for five minutes.

*The Chairman. Thank you, Chairman Rush. I want to ask three questions of three people about the Uncommon Dialogue. So just keep that in mind because I want to get to Ms. Pavel. She is the last one.

So Mr. Wood, can you describe why Trout Unlimited elected not to support the Uncommon Dialogue? And in so

doing, can you address whether your organization believes that proposed reforms to Section 4(e) and 18 will weaken environmental protections, including for fish populations?

*Mr. Wood. Thank you, Chairman Pallone. To be clear, we do support the Uncommon Dialogue. We are not in support of the final proposal now. We just think it needs to -- it needs to take a little more time. It needs to see a little more sunshine and get a little more review and scrutiny, particularly from the action agencies, who will be saddled with implementing it.

So again, we are very supportive of the process. We think it is exemplary, frankly, for dealing with a lot of these issues. We just think that 4(e) and Section 18, in particular, if we are not intending to make changes to what those sections do, then we probably shouldn't change the words.

*The Chairman. Okay.

*Mr. Wood. If the intent is to keep those sections intact and to keep the same authorities intact, our belief is we should take a conservative approach and not try to use new language.

*The Chairman. Okay. And then Mr. Kiernan, your organization, American Rivers, supports the Uncommon Dialogue despite concerns by some, including Trout Unlimited, that the proposal is not -- or I am guess -- I am

putting words in Mr. Wood's mouth, though I shouldn't because I -- I thought he thought it may not be sufficiently protective of the environment. But that is not exactly what he said.

But Mr. Kiernan, can you elaborate on your organization's basis for supporting the Uncommon Dialogue and, in particular, address whether the proposed reforms weaken the protections for fish and wildlife set forth in Sections 4(e) and 18, basically the same question?

*Mr. Kiernan. Yeah. Thank you very much, Chairman Pallone. Yes. We do support this package. We do not think the changes to Section 4(e) and 18 weaken the protections for rivers and fish and wildlife. We believe that the language that we crafted is codifying existing judicial interpretation of the current law. So it is not changing policy. It is merely codifying what the courts have done.

We also do see some benefit, we think, for all parties in having that codified because it just makes it absolutely clear in statute what the intent of Congress is so that there is no accidental or what have you courts moving off of that. To have the clarity from Congress, we think, gives the clarity we need long-term in these proceedings.

*The Chairman. All right. Thank you.

So we got two minutes for Ms. Pavel, who I have known for a long time. I won't say how long. Let me ask you. In

addition to protections for fish, wildlife, and recreation, I believe we have to ensure that any reforms to the Federal Power Act empower tribal nations to make decisions about the use of their own lands and the current regulatory regime vests the Department of the Interior rather than the tribal nations themselves with the authority to impose mandatory conditions on the use of tribal lands.

And I don't agree with that. That has to change. So my question is do you think the Uncommon Dialogue's proposal sufficiently empowers tribal nations to make decisions about the use of tribal lands? And how do we ensure that all tribal nations, including those without significant financial resources or hydropower expertise, are able to participate in the hydropower licensing process?

*Ms. Pavel. The short answer is yes. I think it goes far enough. I think one of the components of the proposal would be to create and to provide resources for all land management agencies to do the work that they need to relative to federal relicensing and licensing projects, including tribal governments. So that is important so that tribes like mine who don't have to lose their blood and treasure and invest everything they have in participating in developing the capacity to do -- do the work necessary here.

One of the things, does it go far enough? Does it do enough? Well, no. My brother, my tribe's natural resources

manager, would say the 4(e) condition attaches to the fish. It doesn't attach just to trust land. We -- you know, the tribal caucus certainly advocated for that. But we collectively couldn't get that far. But we could attach to where it is on tribal trust lands, which is what the -- how the law is, how it has been interpreted, again, as Mr. Kiernan said, a codification of what the law is.

If a project is on tribal trust lands within the boundaries of a reservation, these -- the new 4(e) tribal authority would attach. And that is really historic. It is really -- and what is really historic, in my experience, is that the stakeholders, the industry stakeholders, were -- really embraced this idea and this principle.

And I think it is because of what Mr. Wallen said. They have been partners. They are partners. Tribes and industry and operators and PUDs have been partners in land management agencies. And so it shouldn't have been surprising. But it really was exciting and heartwarming to have industry embrace that aspect of this proposal early on.

It was really one of the first points of common ground that we reached in the Uncommon Dialogue. My friend, Chuck Sensiba, or Malcolm or somebody, one of them likes to often say, "We were engaged in an uncomfortable dialogue.'' But vis-a-vis the tribal issues, that wasn't the case. It was really an early agreement, and that is exciting.

*The Chairman. Thank you so much.

Thank you, Mr. Chairman.

*Mr. Rush. The gentleman yields back.

The chair now recognizes the ranking member from the full committee, Mrs. McMorris Rodgers, for five minutes.

*Mrs. Rodgers. Thank you, Mr. Chairman.

The role of hydropower is vital to our nation's electricity, especially reliable, affordable electricity. And the fact is hydropower has demonstrated an outsized role when it comes to baseload and meeting that important need. As Mr. Woolf notes in his testimony, hydropower provides 7 percent of our nation's generating capacity but nearly half of our nation's black start capability.

And as some states like Washington State are rushing to install weather-dependent generation and we -- and we are concerned about increased blackouts, brownouts, hydropower is more important than ever. Hydropower's future is more than just support of solar and wind buildout, though. We know from our experience in Washington State that it is central for affordable energy.

And I might just note when it comes to a double-edged sword, every source of electricity has a double-edged sword. Wind and solar -- I think we should seriously recognize the impact on birds, land, environmental, and materials needed, the huge disposal issues, supply chain concerns. And the

power is not reliable. Grant County PUD was built by the community to bring electricity to the county in the 1920s and 1950s. And they encouraged the construction of two dams on the Columbia River collectively known as the Priest Rapids Project.

Mr. Wallen, would you talk briefly about that experience navigating FERC relicensing and what recommendations you have to improve the process?

*Mr. Wallen. Yes. Thank you, Ranking Member McMorris Rodgers. Grant values regulatory certainty and external stakeholders coming to the table early and often. We want to promote, ensure success through a transparent approach that is based in sound science. With certainty, we can strive toward achieving regulatory requirements in a biologically sound and cost-effective manner.

Fish, all stakeholders and reliable carbon-free generation all lose with an overly long process. We have heard 7.6 years, 10 years. Waiting this long to implement innovative and enhancement measures is bad for both our natural and cultural resources and bad for domestic carbon-free power supply. These long licensing process and lessons learned, we should all take heed and learn from as we move forward.

*Mrs. Rodgers. Thank you. As a follow-up, your project took about 10 years. Your colleagues at Northwest

Public Power Association note that the Energy Northwest in Richland, Washington was able to relicense a 1200-megawatt nuclear power plant faster than a 27-megawatt hydro project. One difference was, unlike NERC licensing, FERC is not the clearly designated lead agency in the process. Do you think it would be helpful for Congress to designate FERC as the lead agency?

*Mr. Wallen. Yes. I think designation as FERC as the lead agency could help in coordinating schedules, working on timelines, working on studies required and really could just help promote process discipline, which seems to be lacking.

*Mrs. Rodgers. You note in your testimony that projects on the Federal Columbia River Power System are not FERC-licensed because they are owned by the federal government. Yet you also note that -- and I'll quote -- policies that impact one set of hydropower generation tend to impact the other. First, I'd like to ask how would removing the Lower Snake River Dams negatively impact consumers and the economy?

*Mr. Wallen. Yeah. As you know, the Pacific Northwest has passed some of the most aggressive decarbonization laws in the United States. This has happened at the same time Washington and other states are electrifying. I mean, we are electrifying through the transportation. We are electrifying through building heating. This unprecedented

challenge really has put tremendous strain and will continue to do so on both the reliability and the affordability of the electric grid given the existing technologies.

In short, we have got a math problem. We are looking for 24/7 generation to meet these growing demands. And losing the Lower Snake takes this from a complex math problem to an almost impossible one to solve. We are also greatly concerned that people are considering -- not considering the difficulty associated with some of the things that you talked about with supply chain and other logistical challenges and inflationary pressures as we look at this. In short, really, as utility leader, we are --

*Mrs. Rodgers. Thank you. I have one last question I want to get to. Because the Uncommon -- this draft seems to embrace environmental mitigation, even dam removal. There is a whole section that provides sweeping liability waivers for any harm or damages caused by dam removal. Does that give you pause?

*Mr. Wallen. Grant PUD is committed to fulfilling our responsibilities and be good stewards in the environment we are entrusted to manage. And we have always done that and will continue doing that.

*Mrs. Rodgers. Thank you. Thanks for being -- everyone. I yield back.

*Mr. Rush. The gentlelady yields back.

The chair now recognizes the gentleman from California, Mr. McNerney, for five minutes.

*Mr. McNerney. I thank the chair.

I thank the witnesses. There is almost too much agreement for comfort here. So I appreciate, Mr. Wood, at least -- at any rate, most of my questions are going to be addressed to you, Mr. Wood, and one to Mr. Kiernan. The western United States is in a severe megadrought. And some reservoirs have already reached critically low levels, even though it is not even summer.

We are confronting a new reality. So for example, during the record wet year in 2017, the Oroville Dam nearly failed, and they had to evacuate 180,000 people from down -- downstream. Just four years later, where water levels are so low that hydroelectric generation was curtailed for five months. So Mr. Wood, please describe the risks that periods of extreme drought and extreme precipitation pose to the reliability of hydroelectric generation and dam safety. Mr. Wood?

*Mr. Wood. Sorry about that. Did you want me to answer that?

*Mr. McNerney. I mean Mr. Woolf.

*Mr. Wood. That's what I thought.

*Mr. McNerney. Too many W's and too many O's here. Sorry.

*Mr. Woolf. Thank you for the question. Climate change is water change. So you are absolutely right. And that makes hydropower's flexibility more critical than ever. Hydropower is the resource that is able to fill in those gaps and respond as the grid is forced to change because of climate change.

In your own state of California, obviously having historic droughts -- but even last year with, you know, record low water, hydropower was out -- was able to outperform. There was a recent study showing that in that -- basically, the hydropower facilities save their water to the afternoon ramp when solar is coming off the grid. Hydropower doubled from 5 to 10 percent of the grid because it saved its water, saved its power for when they knew the grid was going to need it. And that is part of the flexibility and why hydropower is so important. We can respond to what -- the grid's evolving needs.

*Mr. McNerney. But when we have these extreme droughts, the hydropower loses its reliability.

*Mr. Woolf. I mean, it certainly depends in different parts of the country. At the same time, while the West is having droughts, there is record rainfall in other parts of the country. But you are right. Certainly these are having a huge impact. And the hydropower operators are using a variety of tools, forecasting other things to adapt to what

is a change in climate.

*Mr. McNerney. Well, how does this proposal address the trade-offs between freshwater delivery and hydropower generation in an increasingly arid West?

*Mr. Woolf. These are really complicated challenges, and it is part of one -- part of what I hope this committee recognizes, is that most hydropower facilities were not built for power generation. They were built for other purposes. They are multipurpose facilities. This is water storage. This is irrigation. Part of how the West has done so well despite these droughts is that hydropower -- those facilities have been there to provide that water storage so we can get through these periods of drought. But these are unprecedented times, so these are real challenges.

*Mr. McNerney. Certainly.

Mr. Kiernan, what needs to be done to ensure that hydropower in the West remains a reliable source of power?

*Mr. Kiernan. I think one of the key solutions is what our proposal suggests or includes, and that is requiring FERC and other mandatory conditioning agencies and the tribes to include climate change in their analysis when they are thinking through project conditions so that they consider what are the potential extremes and what might be the impact on the dam, the surrounding communities, the lands, the reservation and take that into account with the

conditions so that, like you mentioned at Oroville with the huge flood and the drought, those extremes, we think, need to be considered as part of the whole licensing process. And that is why the Uncommon Dialogue did include climate change as a requirement for FERC and the other agencies to include in their process.

*Mr. McNerney. Thank you. I want to switch to biodiversity. According to your testimony, Mr. Kiernan, the world has lost 83 percent of freshwater species since 1970. And freshwater populations continue to decline, much faster than the ocean counterparts. We have experienced this in my district with Chinook -- spring-run Chinook salmon.

Mr. Wood, then, this question is for you. To what extent is the decline in freshwater species attributable to dams, and how successful are fishways at facilitating fish passage?

*Mr. Wood. You know, trout and salmon are the ultimate indicators of the health of the land. And it would be wrong of me to suggest that hydropower is the only problem for the reason that we have lost 106 stocks of salmon in the Pacific Northwest and another couple hundred are imperiled. But it is a contributing factor. And the problem often isn't the fish passage itself. As was cited by my colleague earlier, those numbers are relatively high. It is often the delayed mortality associated with the big reservoirs. So in the

Snake River Basin, for example, you are talking about -- it used to take a day or two for a smolt to flush down to the ocean, you know, 100 years ago before the dams were built.

Today, it can take up to three weeks, and they have to traverse 140 miles of, you know, bathwater-warm reservoirs to get there, and those are full of predators and, you know, disease and that -- there is this really dramatic delayed mortality that is tied with that.

*Mr. McNerney. Thank you.

Mr. Chairman, I yield back.

*Mr. Rush. The gentleman yields back. The Chair now recognizes Mr. Latta for five minutes.

*Mr. Latta. Well, thank you, Mr. Chairman. And I want to thank our witnesses for your testimony today; great to have you all before us.

Mr. Wallen, in your testimony, you go into detail about Grant's PDU's experience with permitting process, which included bureaucratic delays and roadblocks, the final license and renewal. I would like to kind of follow up where the gentleman from Michigan and our subcommittee ranking member was talking with Mr. Woolf. But as Americans continue to consume more energy and not less energy in the coming years, we are going to need to address why it takes, on average, seven to ten years to permit an energy project. And I know we heard some explanations from Mr. Woolf. But I

would also like to hear from you, from especially reading your testimony. Is there any explanation as to why it takes so long from permit to be approved for a hydropower project?

*Mr. Wallen. None that I can readily give. You know, I think, again, it is early and often engagement at the table focused on certainty and taking the external stakeholders coming in to that conversation will lead to success. It has got to be transparent. It needs to be based on sound science to get the right biological outcomes that we are looking for. Again, I think we cannot continue down this path because we are impacting the fish. We are impacting the ability to leverage this domestically available carbon-free generation resource that we have.

*Mr. Latta. Let me go further in your testimony because you are talking about, you know, you need effective and efficient permitting. And also -- it is also -- you say that in your process -- in your renewal process for your license, the process was frustrating, bureaucratic with time and expense delays and a question about certainty. And one of the things I think that also comes up when you talk about how long a project takes, how often does something change within that process that you have to go back and fix in your renewal process that you are doing because, all of a sudden, there is something that has been changed and circumstances.

*Mr. Wallen. Yeah. When you start to talk about a

decade of a process to start to finish, there is a lot that can change during that time period. I think even for us, we started down the traditional license process initially. Or, actually, let me correct that. We wanted to go to the ultimate licensing process, and it was denied by FERC.

We felt like that could have led to a much better outcome for us even back in the -- you know, 1999. So there are opportunities. And we were looking to go through this early and often engagement. I mean, our team of technical professionals were chomping at the bit to make this happen. And it seemed like they would encounter roadblock after roadblock even then to move through that process.

*Mr. Latta. Well, thank you. You know, and also this is a question that Mr. Woolf was asked by our ranking member on the subcommittee. But how does the permitting process compare to projects that we utilize other energy sources that you have seen in the past?

*Mr. Wallen. Yeah. I think we heard the delta even between commercial nuclear power and us. I think we often hear on the permitting side for solar or wind and how much shorter that time -- those time periods are. So, yeah, there is opportunities, in our opinion, to streamline the process, make our process effective and efficient under those type of constraints as well.

*Mr. Latta. Well, thank you.

Mr. Woolf, I am one of the cochairs of the Grid Innovation Caucus. And my good friend from California, one of the many issues that I care about is how new technologies and practices can be used to improve grid reliability. And I have 86,000 manufacturing jobs in my district. And, I mean, we make everything from steel to float glass to having the largest food processing plant in the world, having General Motors in my district. So we do all kinds of things. And we have to have power. And I mean, we have got to turn the power on every day. And it is running 24 hours a day. Would you speak to the reliability, the benefits of hydropower and its ability to provide that baseload power?

*Mr. Woolf. Thank you for your question. That is one of the wonderful things about hydropower. We were America's first renewable resource, and we are a huge solution for what the 21st-century grid needs. As we are putting more wind and solar, there are variable resources. We have them -- a greater need for flexible resources. That is exactly what hydropower can provide.

One example, a few years ago in New England, a nuclear power plant tripped off 1700 megawatts. Instantly, two pumped storage facilities were able to come online, provide that power. The lights in Boston didn't even flicker. That kind of flexibility is huge. It is what we are going to need more of as the grid evolves. And that is what

hydropower can provide. But we are not going to be able to do that if the fleet goes away.

*Mr. Latta. Well, thank you very much, Mr. Chairman. My time has expired, and I yield back.

*Mr. Rush. The gentleman yields back.

The chair now recognizes the chairman of the Subcommittee on Environment, the gentleman from New York, Mr. Tonko, for five minutes.

*Mr. Tonko. Well, thank you, Mr. Chair.

And I do want to commend the Uncommon Dialogue participants for finding agreement on this proposal. The last time this committee considered hydropower licensing reform, it did not start from a place of broad stakeholder consensus. And I truly believe that ultimately hurt the legislative process as well as the final product. But these organizations have given us a strong foundation. And I hope they will continue to stand together and even expand the coalition as policymakers inevitably consider changes to the original proposal because hydropower is an incredibly important clean energy solution, one that has had strong bipartisan support on this committee.

But like all energy infrastructure, it needs to be developed and operated responsibly. An improved licensing process can, indeed, help ensure that. Mr. Woolf -- get this right -- Congress has previously legislated reforms to

the -- to the licensing process. If I remember from the last time this committee examined licensing, the integrated licensing process had not been utilized as often as we had hoped for. And the 2018 expedited processes for low-impact projects also have not been taken advantage of. So why do you believe these provisions or these previous efforts have not fulfilled their expectations?

*Mr. Woolf. Thank you for the question, Congressman Tonko. We are incredibly disappointed by the track record of the AWEA laws from four years ago. Not a single company has been able to use those provisions, principally because they -- the two-year time clock starts -- kind of excludes all of the pre-application work that is required to take place. So there is years of work that takes place before they will even start that time clock, which means it is not actually expediting anything. So it has not been able to be used.

*Mr. Tonko. And why is this proposal that you are bringing to the committee different?

*Mr. Woolf. This is -- this is very different in a number of different ways. For the expedited treatment, it starts that time clock at the very beginning when you file your intent to file an application or, actually, when FERC says that that's -- they have 60 days to say, "Hey, do you qualify or not?'' So it starts from start to finish.

So that two-year start to finish is appropriate for -- for qualifying nonpowered dams. FERC has done pilot projects. They have been able to get that done. We think that is appropriate for nonpowered dams. The dam is already there. So the level of complexity of the issues -- for pumped storage, it is the same process, three years from start to finish.

*Mr. Tonko. Thank you. And because projects operate on 30- to 50-year licenses, they often have not gone through environmental reviews in decades. Mr. Kiernan, over the course of several decades, how can the environment change around one of these projects?

*Mr. Kiernan. Well, I think the environment can change for a couple of factors, one, obviously, climate change. That is changing. And so the hydrology in and around the river likely has changed. The dam itself may have also caused unintended consequences. And in that time period, Congress has moved forward with new and important laws, as we as a country have learned what needs to be done to protect the fish, the river, the wildlife surrounding it. So all of those factors, I think, indicate appropriately the relicensing process and the importance of doing it and doing it thoughtfully and doing it as we are proposing where FERC coordinates early on in the process with other agencies, and they get a joint study plan together.

*Mr. Tonko. Thank you. And so is it fair to say that relicensing should not just be seen as an opportunity for industry. How can relicensing enhance fish, wildlife, and other aspects of environmental quality, including changing conditions that are, indeed, related to climate change?

*Mr. Kiernan. I think by having a licensing process where all stakeholders are involved and we do have -- for example, in the trial-type hearing, some changes to that process where more stakeholders are at the table. All of this does create more transparency, getting all of the data on the table. One of the phrases we have used in our discussions is a philosophy of show your work where FERC now is required to -- everything from citing -- telling us where they are getting the data, what is the citation, where is it in the 200-page document to -- what models, nonproprietary -- what public models are they using? So all of that is just making the data more available so that FERC and other agencies have the data to do the right thing for the fish and for the wildlife. And that is the reason that this proposal improves health for the river and the fish.

*Mr. Tonko. Thank you, and I am running -- I ran out of time. But Ms. Pavel, I will have a question sent your way dealing with Section 4(e) in terms of relationship to the tribe. So we will get that to you.

With that, Mr. Chair, I yield back.

*Mr. Rush. The gentleman yields back.

The chair now recognizes Mr. Griffith of West -- of Virginia for five minutes.

*Mr. Griffith. Thank you very much, Mr. Chairman.

Let me first echo what Ranking Member McMorris Rodgers said, that all energy sources have some negative impacts. And I think we need to do research on all of them. For example, wind -- she mentioned birds. She left out bats. But what the Europeans have found is that if you paint one blade black, you reduce significantly bird mortality on offshore windmills.

So I think we need to do more research on that. I also believe that we need to do more research on how we can make fossil fuels more effective as well. That being said, Mr. Kiernan and Mr. Wood have both talked about different things that are happening to the rivers and biodiversity. And I am interested. I know it is not today's hearing. So I am not going to ask for a response. But I am just interested in you all's concerns as time goes by -- we can do this in writing -- about the effect of pesticides, particularly for the Trout Unlimited on the species that are not targeted by agriculture but that are affected by pesticides used in agriculture affecting the amount of food that is available and, perhaps, the ingestion of pesticides that the insects have acquired by the fish that eat them. But those are just

a few of the things that I found interesting in the comments up to this point. But those weren't any of my questions that I was supposed to ask, so let me get to that.

In the 115th Congress, my bill, the Promoting Closed-Loop Pumped Storage Hydropower Act, became law as part of the American Water Infrastructure Act. This created, at FERC, an expedited licensing process for closed-loop projects, which are essentially giant batteries. FERC was directed to ensure that this expedited licensing process resulted in a final decision on the application in less than two years.

Mr. Woolf has just told us, in response to Mr. Tonko, part of the problem with that. And I am disappointed that FERC isn't here to testify on the proposal before us and to see whether they agree with you, Mr. Woolf, because we thought we were taking care of this back in 2018. And now we hear that that has not occurred.

But, you know, we would like to see that occur. And Dr. Bucshon's bill has been mentioned several times for nonpowered dams. And that hasn't seen results either. Mr. Woolf, since FERC is not here, I am going to ask you the questions. It is my understanding that only one facility has applied to use the expedited licensing process for closed-loop hydro, and the application was either withdrawn or rejected. Are there efforts by FERC to promote this

program that encourage hydropower companies to apply for this expedited prices? Are you aware of any of those? All right. He is not aware.

And it seems that some of the environmental laws and requirements imposed by other agencies outside of FERC are the holdup and are the -- and are resulting in more complicated application processes. Would you agree with that?

*Mr. Woolf. Absolutely.

*Mr. Griffith. And he agrees with that. The proposal under review today includes much of the same interagency task force language that we included in 2018. You have mentioned, in your answers to Congressman Tonko, that this new language will do better. What is the language in there that is going to make it so that we don't get hung up with other agencies trying to implement their laws? I mean, well, go ahead and answer that one. I will get to the next one later.

*Mr. Woolf. By starting the pre-application process, starting the shot clock, that is going to help. The entire process, we are also trying to coordinate by requiring FERC to do up-front coordination with those other agencies, come up with a combined schedule. And if there is conflicting conditions, work that out before the process is over.

*Mr. Griffith. So in other words, for the folks

watching back home, they would already have a system set up before Company X would ever bring in their proposal. The agencies would already have it worked out. You have got this much time to respond, and the other agency has so much time to respond. And then FERC gets those informations and moves forward; is that correct?

*Mr. Woolf. That is right. And it would only apply for closed-loop or off-stream pumped storage. Those don't typically have the environmental concerns.

*Mr. Griffith. And they don't have the environmental concerns because there isn't wildlife that is going to be impacted because it is a closed loop. That is the whole point of the bill. Somehow, the agencies of the federal government have missed that. Would you agree with me on that?

*Mr. Woolf. I would.

*Mr. Griffith. Thank you. The law also requires FERC to conduct a workshop to explore potential -- the potential developing these projects in abandoned mine lands. FERC issued guidance in October of 2019. Are you aware of any companies exploring this option?

*Mr. Woolf. There is increased need in pumped storage around the country, and folks are looking at abandoned mines.

*Mr. Griffith. And I got a bunch of them.

*Mr. Woolf. Yeah. I mean, it is a huge opportunity, but the licensing process is -- we have got 90 facilities in the pipeline, and nothing has been built for decades.

*Mr. Griffith. All right. Do you think FERC could do more to advertise this opportunity?

*Mr. Woolf. We would love it. Yes.

*Mr. Griffith. Thank you very much. My time is up. I yield back.

*Mr. Rush. The gentleman yields back.

The chair now recognizes the gentleman from North Carolina, Mr. Butterfield, for five minutes. Mr. Butterfield, are you unmuted? You are muted, Mr. Butterfield. Mr. Butterfield, are you all right? Are you okay?

Ms. Kuster, we will go to you, and then we will come back to Mr. Butterfield after we work out his technical difficulties.

*Ms. Kuster. Thank you so much, Chairman Rush, and I am grateful to you and to Chairman Pallone for holding this hearing today. I am particularly grateful that the committee agreed to examine this landmark proposal to improve the hydropower licensing, relicensing, and surrender process. Before diving into licensing, I want to thank Mr. Wood for highlighting the 21st Century Dams Act during his testimony today.

I am proud to have introduced this legislation on a bipartisan basis with our colleague, the late Representative Don Young and with Senator Diane Feinstein. This bill will make huge investments to rehabilitate dams, retrofit them with hydropower turbines, and remove dams that have outlived their usefulness. This is an opportunity to boost our nation's clean energy production. And I welcome my colleagues on both sides of the aisle here today to join me in passing the 21st Century Dams Act.

Now on to licensing reforms. To everyone sitting here today, it is clear from your testimony that we can all agree on one thing. The hydropower licensing process needs to be reformed. The current process is inefficient and drawn over far -- drawn out over far too many years, lacks transparency for stakeholder engagement and fails to give tribal nations an equal seat at the table.

The proposal before us today would address these long-standing issues and, in my view, would be a win-win-win for our nation's river ecosystems, tribal nations and, most importantly, clear -- clean energy production to address climate change. I want to commend the participants of the Uncommon Dialogue, including my friend, Dan Reicher, from Stanford for forming this coalition and putting together this thoughtful and holistic approach. In my district, there are 27 hydropower facilities that have licenses set to

expire in the next decade. Many of these are small hydro facilities.

According to the Department of Energy, of the 41 dams that surrendered their licenses in the last decade, 36 were small hydro facilities. Mr. Woolf, can you speak to how this licensing reform proposal might help small hydropower facilities and potentially reverse this alarming trend?

*Mr. Woolf. Thank you for your question and again for your leadership of the 21st Century Dam Act. It has been tremendous. That really is hugely important to the industry and to this broader -- this broader effort. Your question is spot-on. The small hydropower operators -- and there are many -- the process is so long, so expensive, so uncertain that it is easier simply to turn off the powerhouse than to go through the licensing process at the end of a life.

We think that this license reform package will help that by clarifying the conditioning authority. It is going to reduce delays, reduce litigation by having increased coordination between the various parties. We think it is going to create a lot more clarity and help keep the existing small hydro fleet operating.

*Ms. Kuster. Thank you. That is my goal.

Mr. Kiernan, in your testimony, you spoke on how this proposal creates common ground. And it is clear that it carefully balanced the interests of environmental, tribal,

and industry stakeholders. What are the challenges of making further changes to this licensing reform agreement?

*Mr. Kiernan. This group has worked -- I think it is a good three, three-and-a-half years. And a lot of difficult or, as Malcolm said, uncomfortable discussions. So we have been slogging away, building an understanding. And as I think you mentioned and I know as I said, we have created a holistic proposal that is knit together where we think there is some synergy in this language.

So our hope, as we have said -- a package is a package. It holds together. It is, we think, a win-win-win. And if there are significant changes to it, suddenly that balance is lost, or the interwoven benefits that create the win-win-win would be lost. We look forward to the committee's serious consideration of the package.

*Ms. Kuster. Well, and I think, as my colleague pointed out, it is rare to have all of you parties coming together. That doesn't happen often in this committee room. And so I think it is good cautionary tale for us as we consider it, this combination.

*Mr. Kiernan. And if I may, also thank you as well for your leadership on the 21st Century Dams Act. Has been extraordinary.

*Ms. Kuster. Thank you.

Ms. Pavel, do you share this perspective?

*Ms. Pavel. Absolutely. And want to echo my colleague's thanks for your work, the committee's work on the 21st Century Dams Act. But absolutely. I share their perspective. This is really, you know, a unique opportunity of the stakeholders. And I think, you know, I give a lot of credit to this committee for encouraging the stakeholders sit down and have that dialogue, both -- with bipartisan encouragement to have this dialogue because what we learned was that we can -- we can stop one another from achieving our greatest progress.

*Ms. Kuster. Well, thank you so much to all of you. I think it is still a damn good idea, and I hope that we can get it done in this committee. And with that, I will yield back.

*Mr. Rush. The gentlelady yields back.

The chair now recognizes the gentleman from Ohio, Mr. Johnson, for five minutes.

*Mr. Johnson. Well, thank you, Mr. Chairman, and a special thanks to all of our witnesses for being with us here today. You know, I am really glad that we are revisiting this issue, an issue that this committee did some good work on a few years back, but it is clearly an area where more needs to be done. And I also applaud Ranking Member McMorris Rodgers for her work on this and for her legislation, H.R. 1588, which I am proud to support as part

of the Energy and Commerce Republicans securing cleaner American energy agenda.

My district in Eastern and Southeastern Ohio is long. It is the longest district east of the Mississippi. It is bordered on one side by the Ohio River for 300 miles. So I got a lot of river. It is a daily reality for my constituents to see firsthand the power and the economic benefits the river gives our communities, including several hydropower projects.

So it surprises me that -- and maybe it shouldn't but it does. But it surprises me that some of the biggest advocates for green energy argue that hydropower is somehow not renewable in the same way as, say, wind and -- wind and solar even though the river flows day or night, whether the sun shines or not. And it flows whether the wind is blowing or not. It is there.

So to my colleagues, we should remember the goal is to ensure affordable, reliable energy. And if we want to be greener and secure our grid, then we need to make innovating in this space easier. So Mr. Woolf, one of the concerns we have right now is that, in this push to rush our economy's transition to green energy, we may inadvertently make ourselves even more dependent on massive amounts of batteries and magnets that are made with materials sourced almost exclusively from communist China. Would you agree

that baseload hydropower and new technologies such as pumped storage could protect our renewable portfolio and energy security with less exposure to those dangerous supply chain bottlenecks that we would get from China?

*Mr. Woolf. The fuel source for hydropower and pumped storage is domestically sourced water.

*Mr. Johnson. Okay.

*Mr. Woolf. Absolutely agree.

*Mr. Johnson. All right. That is a pretty direct answer. I appreciate that. Mr. Wallen, you mentioned in your testimony that your region's baseload electric -- electricity demand is only growing and that it is nearly impossible to comply with state laws mandating carbon reductions without the carbon-free power you provide with hydropower. Can you expand on this and explain why it is so important to treat hydropower equally as a renewable energy source?

*Mr. Wallen. Yes, Congressman Johnson. Yeah. As you indicate, our load is growing. And we are approaching, in 2026, with planning margins, outgrowing the physical output that we are entitled to of our project. So it is top of mind. We go through integrated resource planning, as required by Washington State statute, every two years. We are in the midst of that process again today, likely the same outcome that we had in 2020, is that we need new

generation, or we need to figure out a new way to get it. And so the existing hydro resources we have, continuing to leverage them, as I talked about from a grid stability, load-following capabilities. Just as we look at renewables, yeah, I think there is a difference. I think hydro is a lot better in a lot of different ways when we look at all those additional characteristics that we do gain from that clean, renewable, domestically sourced resource.

*Mr. Johnson. Yeah. You know, I am really not sure how anyone that watches a hydropower facility produce electricity and the flow of a river like the Ohio River -- I don't know how anyone could argue that that is not renewable energy. In fact, I am not even sure that it doesn't rank above renewable energy because it is always there. Day or night, wind or rain, sun or moon, it doesn't matter. It is there.

*Mr. Wallen. And if I may add, that is what I talked about earlier. It is when we need it and how we need it. And that is a distinct clarifier, in my opinion, of this renewable energy resource unlike the others.

*Mr. Johnson. Well, you know that when we need it is, like, right now. You know, we need the power when we need it. And that is normally right now. How we get it, hydropower, is certainly an alternative. And I think we need to be innovating that way.

Mr. Chairman, I yield back.

*Mr. Rush. The gentleman yields back. And the chair now recognizes the gentlelady from Washington, Ms. Schrier, for five minutes.

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

Thank you to our witnesses. I really appreciate your being here today to talk about this very worthwhile proposal. I am so pleased to see the hydropower industry, tribes, and the environmental community all come together to improve the licensing and relicensing process. Our state has really been a model for bringing diverse opinions together to move the ball forward.

Nonfederal hydropower operators in my district need a streamlined relicensing process. And I am really encouraged by the effort and the collaboration that produced the proposal that you are here to testify about today. I believe the Uncommon Dialogue approach is beneficial because it ensures more timely and efficient decision-making by having parties jointly develop a schedule with FERC. And as we know, uncertainty and delay are not good for making investment decisions.

We also know, as some of my colleagues pointed out, that many of these hydropower facilities are coming up for relicensing all at the same time. This proposal also encourages coordination on steady plans and sets up

processes to resolve conflicting license conditions and ensure that proposed requirements are tied to actual project benefits.

So additionally, this project takes additional, important steps to enhance the health of our nation's rivers and improve tribal sovereignty. In Washington State, hydropower generates nearly two-thirds of our energy each year and the majority of our carbon-free energy. And we are the nation's largest hydropower producer. And much of that is generated by publicly owned utilities in my district.

In particular, I want to talk about how this proposal might improve the licensing process for the Rock Island hydropower facility. This dam produces over 600 megawatts of power for my constituents. It is up for relicensing in the next five years. And I believe these reforms could improve and shorten that process for all parties involved.

Large hydropower projects, like Chelan PUD's Rock Island facility, can have really lengthening processes. They are costly, and many of those expenses are really passed on to ratepayers. So Mr. Woolf, can you speak about how this licensing reform proposal will help reduce the length and litigation associated with hydropower relicensing?

*Mr. Woolf. Thanks for your question, and you are exactly right. I think this reform package, if enacted,

would be a huge benefit, not only to those folks doing expedited licensing for new nonpowered dams and pumped storage but to preserve the existing fleet.

It does a number of things to make that happen, first, by clarifying the mandatory conditioning authority. In these permitting processes, we often get bogged down in what's the scope, what can -- what's in, what's not that often leads to litigation, usually leads to delay. By clarifying that, I think it is going to expedite the process. Requires interagency coordination at the front end. What is the schedule? Who is doing what? What studies do you need so you don't spend seasons doing studies only for a state agency to say, hey, we want to study a different fish, a different species after we are already, you know, two or three years into the process. Also has coordination at the end of the process. So I think there is a lot of things here to speed up this process, create greater certainty, and reduce litigation delays.

*Ms. Schrier. Thank you for that perspective. So now we know how it makes it better for hydropower facilities.

Mr. Kiernan, I wonder if you could comment on why you think this proposal is a win for the environmental community.

*Mr. Kiernan. Thank you for the question. There are a number of benefits. Let me first speak to license

surrendering. There are many owners of dams that want to relinquish, surrender their license. But the process right now is unclear and very time-consuming. So being able to have a more streamlined, scheduled license surrender allows us, frankly, to return the health of the river by removing the dam. So that is one example.

Second is the inclusion of climate change as one of the factors that FERC considers. And the third that I mentioned earlier is the transparency, the show our work, the having a process that is more open to the public is helpful for fish, wildlife, river health, as well, I believe, for the industry. So it is, again, a win-win-win from all sides.

*Ms. Schrier. Thank you. In the 30 -- 25 seconds remaining, I just want to emphasize that as we become more and more reliant on electricity and we want more of that electricity to be clean, hydropower plays a critical role. And I want to just extend my agreement with my colleague from Washington that adding power generation to already existing dams would be a smart way to get more clean energy as we expand everything else to electricity. Thank you. I yield back.

*Mr. Rush. The gentlelady yields back.

The chair now recognizes the gentleman from Michigan, Mr. Walberg, for five minutes.

*Mr. Walberg. Thank you, Mr. Chairman, and thanks to

the panel for being here. Michigan has long been a historic state with hydropower. Got a lot of water surrounding Michigan on three sides and running through it.

In the late 1800s, in fact, the first hydro turbines were invented to provide lighting for a theater in our state, and that is cool. But there is little that I enjoy more than standing in a clear freestone river with fly rod in hand going against wily trout, whether brown, rainbow, brook, or whatever. And whether it is in the holy waters of Michigan or whether it is on the White River in Arkansas that is dam-fed and is amazing stream or in the Firehole or Madison, it is something I love.

But I also -- I am a strong supporter of hydropower because it is clean, reliable, and affordable. I know the best energy policy is an all-of-the-above strategy that includes fossil, nuclear, renewables like hydro. But as policymakers, we have to be careful not to pick winners and losers. That is my concern among competing fuels. We should allow consumers in the market to choose the best technologies rather than bureaucrats.

As we look at modernizing the hydropower licensing process, we should be removing unnecessary and redundant permitting steps rather than adding new ones. In preparation for this hearing, FERC staff raised concerns that Uncommon Dialogue draft could lead to more uncertainty

and litigation. This won't make the process any faster. For example, I am concerned the Uncommon Dialogue draft undercuts the relationship and trust responsibility between the federal government and the tribes.

I am also concerned that the draft would establish a precedent that could be weaponized against other types of energy infrastructure like pipelines, which is a big issue in Michigan now. Line 5, which is a critically important pipeline in Michigan and the entire Midwest, is in federal court right now defending a lawsuit brought by a tribe that wants to shut the pipeline down because the tribe wants to impose its own standards and conditions. That is not how it works.

Congress passed the Natural Gas Act and the related statute, the Federal Power Act, to establish uniform federal standards to prevent various state, local, and tribal requirements. I am concerned that taking mandatory conditioning authority away from the Department of the Interior and transferring it to the tribes will result in a patchwork of inconsistent requirements that will not serve the public interest.

So Mr. Wallen, the Uncommon Dialogue draft depends or upends the existing process for the Department of the Interior to submit conditions on a hydropower license. Do you think Congress should take the conditioning authority

away from the Department of the Interior?

*Mr. Wallen. Congressman Walberg, I think, you know, having an identified lead agency to help facilitate the discussions could be helpful. As far as we talked early and often at the table, I think those conversations are going to be the framework for a successful outcome. And we need to continue to focus on those. So I guess I -- you know, given our licensing experience and, you know, we are good at Grant until 2052 at this point. So I am not sure that I -- you know, I am the best to answer that question but --

*Mr. Walberg. Thanks for attempting. Let me ask you, then. You mentioned in your testimony that policies that impact one set of hydropower generation tend to impact others, meaning federal dams. Do you agree that Congress should also pause and consider the potential impacts to other types of infrastructure like pipelines and electric transmission?

*Mr. Wallen. I think when we talk energy, Congressman, you know, policy established could have unintended consequences if we are not careful. And we need to be cognizant of those.

*Mr. Walberg. Turning now to licensing, Mr. Woolf, there are reports that FERC DHAC is looking to bring an increasing number of routine dam safety projects under the umbrella of formal licensing amendments and corresponding

environmental reviews. I am concerned this increased administrative oversight could interfere with the ability of hydro owners and operators to make efficient and timely investments in dam safety.

I am also concerned about the clarity of FERC guidelines regarding when it may or may not require a licensed amendment. How can we work with FERC to get more certainty for hydro owners and operators regarding what divisions must review proposed dam safety investments and when formal license amendments will be required?

*Mr. Woolf. Thank you for your question. That is an increasing concern among my members, that routine operation and maintenance events that used to be routine, now we're being told we have got to go through a license amendment process that, as we have been talking about today, can be incredibly cumbersome, expensive, time-consuming. It is creating uncertainty. It is not clear to me whether this is a shift in FERC policy or if these are just kind of some rogue folks. So we are working with FERC to try to investigate that because if this is a new policy, that would be deeply concerning.

*Mr. Walberg. Thank you. My time has expired. I yield back.

*Mr. Rush. The gentleman does yield back, and the chair now recognizes the gentleman, once again, from North

Carolina, Mr. Butterfield, for five minutes.

*Mr. Butterfield. Thank you very much, Mr. Chairman, for convening this very important hearing today. And let me just take a moment to apologize for not being in place a few moments ago. And when I ran back to my computer, I forgot to unmute it. But thank you so much for your patience. Mr. Chairman, several cities in my congressional district are powered by hydropower, including the City of Roanoke Rapids, the Town of Gaston, and City of Rocky Mount.

In fact, hydropower is the second largest source of renewable electricity in the whole state of North Carolina. And I continue to strongly promote hydropower as a source of sustainable energy production. My district also includes many rural areas, including the Haliwa-Saponi and the Meherrin tribal lands, which is why I find it promising that the Uncommon Dialogue proposal would promote tribal interests.

And so let me just start with you, Mr. Wood, and thank you for your testimony and to the other witnesses as well. Question No. 1, although your organization has not endorsed the Uncommon Dialogue proposal, you praise the agreement's proposal to increase funding for resource agencies like the Department of the Interior that play an active role in the hydropower licensing process. Do you think the resource agencies are currently under-resourced? And if so, how does

that lack of resources affect agencies' ability to protect federal and tribal lands?

*Mr. Wood. Thank you, Congressman. I do think they are under-resourced. And I think with the -- as has been talked about with the slug of relicensings that are coming, Congress would do well to make sure that the resource agencies have the capacity to engage in the relicensing in a timely manner to avoid some of the delays that our friends from the Hydropower Association have been talking about.

*Mr. Butterfield. Thank you for that.

And now to Mr. Woolf. Thank you, sir, for your testimony. The Uncommon Dialogue proposal directs the Federal Energy Regulatory Commission -- we call it FERC -- to undertake a rulemaking to facilitate surrender of hydropower licenses. My question to you is what is the current process for surrendering a license, a hydroelectric license, and how should Congress ensure that licensees who surrender their licenses mitigate any environmental damage caused by the project?

*Mr. Woolf. Thanks for your question. And if I can quickly just add on to the answer to the prior question, in the joint legislative --

*Mr. Butterfield. Sure.

*Mr. Woolf. -- proposal, we are actually redirecting some of the money that the hydropower industry currently

pays. We are proposing that some of that money go directly to those state and other resource agencies to pay for their direct costs. So we have created a funding mechanism to address that exact concern. With respect to your -- now I am blanking on surrendering.

*Mr. Butterfield. Surrendering.

*Mr. Woolf. License surrender. Sorry.

*Mr. Butterfield. Surrendering the license.

*Mr. Woolf. License surrender --

*Mr. Butterfield. Yes.

*Mr. Woolf. -- is becoming increasingly common. Seventeen facilities have submitted license surrenders in just the last two years. FERC has historically done it on a case-by-case basis. And that is part of this package, is to say, hey, let's have a little more clarity, a little more certainty, do a rulemaking process so that we can have greater clarity for all concerned about what the license surrender process involves.

*Mr. Butterfield. But shouldn't there be some type of accountability when the license is surrendered with respect to any damage that may have been done to the environment?

*Mr. Woolf. We think that that is actually covered in the license itself, that we go to great lengths to mitigate any concerns during license operation. But when the license is surrendered, certainly they have got some continued

responsibilities. Often, folks want that dam to continue. Almost all dams were built for multipurpose, for flood control, for irrigation. So when you do license surrender, you are not getting rid of the dam in many circumstances.

*Mr. Butterfield. So you say when they surrender the license, they continue to have some responsibility. Is that responsibility enforceable?

*Mr. Woolf. They have responsibility during that license surrender process. Once they have formally surrendered the license, that is when their responsibility ends.

*Mr. Butterfield. And FERC no longer has jurisdiction over the project?

*Mr. Woolf. Correct.

*Mr. Butterfield. All right. Thank you, Mr. Chairman. You have been very patient. Thank you. I yield back.

*Mr. Rush. The gentleman yields back. Now the chair recognizes the gentlelady from -- the gentleman -- Mr. Palmer.

*Mr. Palmer. Thank you, Mr. Chairman.

*Mr. Rush. Five minutes.

*Mr. Palmer. I want to follow on the licensing thing, Mr. Woolf. In your testimony, you state that relicensing an existing hydropower facility takes longer than relicensing a nuclear power plant. Despite all the rhetoric around the

need for carbon-free energy from my Democrat colleagues, nuclear and hydropower always seem to be excluded or just talked over. Why do you think that both industries are uniquely attacked by Democrats to give a free pass to technologies like wind turbines that have a huge environmental footprint and that kill countless amounts of wildlife and also make us dependent on foreign sources for the -- for the critical earth materials?

*Mr. Woolf. As several of your colleagues have pointed out today, every resource has pros and cons. There is downsides to everything. And I think wind and solar have been -- have been -- and batteries have been shiny for the last decade or two. And I think folks are ignoring the value that hydropower provides. An international report recently called hydropower the forgotten giant. And it is the nation's largest or globe's largest source of renewable energy. And it has got the flexibility in baseload power that we need.

*Mr. Palmer. Mr. Woolf, in your testimony, you state, unlike other forms of energy storage, pumped storage does not require mining large amounts of minerals in countries with poor environmental track records. Can you talk more about the economics of pumped storage and how it can be a useful tool to reduce reliance on the supply chain of countries like China.

*Mr. Woolf. Thank you for the question. As this country does evolve to a grid that has got more wind and solar, it is a more variable grid. There is more flexibility on the grid. Some resource has to be able to fill in those gaps. When the sun goes down, when the wind isn't blowing, pumped storage is uniquely able to do that in -- almost instantaneously and do it for long duration.

It can do it for four, six, eight hours, which is something that batteries cannot. So there is an increased need for long-duration energy storage. And we think pumped storage is an ideal solution, but only if we can get the permitting faster.

*Mr. Palmer. And it is a resource sustainer, I guess. It can be recirculated. Mr. Wallen, when it comes to building infrastructure, we continually hear how the National Environmental Policy Act and Endangered Species Act can add unnecessary delays and costs to projects. Do you think that we should be undertaking serious NEPA or environmental -- Endangered Species Act reform and that that could lead to a quicker deployment of hydropower resources?

*Mr. Wallen. I really think this question would be best answered by Mr. Woolf.

*Mr. Palmer. Well, I will direct that to Mr. Woolf then. That is called deflection.

*Mr. Woolf. And I am sorry. I was looking at my

notes.

*Mr. Palmer. That is all right. I think we should have some serious reevaluation of NEPA and the Endangered Species Act because it is adding unnecessary delays and costs to projects. And this is not to say that we want to eliminate these things. But what I found in looking at some of our regulatory issues is we have obsolete regulations. We have duplicative regulations. We have contradictory regulations.

And I think that is true in NEPA and Endangered Species Act. And I just -- I want to know your perspective. If we could undertake that serious reevaluation, would it help us in terms of getting these hydro projects re-permitted or even in the hopeful possibility that we could build new facilities?

*Mr. Woolf. Absolutely agree. NHA is on record as wanting to streamline NEPA and the Endangered Species Act and the current pattern we are in of one administration issuing one law, the next administration coming in and reversing it. That doesn't allow for project certainty.

The key thing for our purposes today, however, is that, while we may disagree on that issue, we have come together on reform of the Federal Power Act. So we are trying to -- politics is the art of the possible. We have got a solution for the Federal Power Act even if we can't solve everything.

*Mr. Palmer. I think the key for this -- and this would be true for everybody when it comes to regulations, is to improve agency transparency in the permitting licensing process. And again, to get rid of the obsolete, the duplicative, contradictory and to support reforms that move us in that direction so that we make the best and wisest use of hydrological resources that are available to us for generating power.

Last thing I want to say, Mr. Wood, in regard -- are you located in Bozeman? I have been to Bozeman Senior --

*Mr. Wood. No. Unfortunately, I live in Washington, D.C.

*Mr. Palmer. That is tragic for a guy who likes to trout fish.

*Mr. Wood. There is a terrific shad run in the Potomac, though, that is on right now.

*Mr. Palmer. Well, we have a trout stream that is the tailwaters of Lewis Smith Lake in Alabama that does -- produces hydroelectric power. With that, Mr. Chairman, I yield back.

*Mr. Rush. The gentleman does yield back.

The chair now recognizes the gentlelady from California, Ms. Matsui, for five minutes.

*Ms. Matsui. Thank you very much, Mr. Chairman. And I want to thank the witnesses for being with us today. As a

co-chair of the -- Energy and Environment Coalition, I recently launched the Nature and Oceans Task Force with Congressman Neguse to explore policies that harness the power of public lands and waters in the fight against climate crisis.

To make meaningful and lasting progress, I believe we need to take a full systems approach to critical climate and clean energy policies and appreciate the opportunity to discuss the role hydropower can play in our clean energy future. The Bipartisan Infrastructure Law makes vital investments that will help us achieve crucial climate goals, including $3 billion for modernization and removal, dam safety, as well as hydropower projects.

For this funding to be as effective as possible, I believe it must be distributed in a way that incorporates local feedback and community input. In my district, the Sacramento Municipal Utility District or lovingly called SMUD has been a strong partner in realizing our region's clean energy and emissions targets, including a goal to reach zero carbon emissions in its power supply by 2030, the most ambitious goal of any large utility in United States.

Build Back Better included new financial tools to support public power upgrades and existing hydropower dams for dam safety, environmental improvements, and grid resilience enhancements. And I believe we should continue

to pursue these important policies. Now, in my home state of -- well, actually, I want to ask you a question about that.

Mr. Woolf, what role can public power play in increasing America's hydropower capacity? Mr. Woolf?

*Mr. Woolf. Public power is a huge part of this solution. Half of the hydropower in this country is federal. Of the nonfederal, another half is public power. So fully 75 percent of the hydropower in this country is either federal or public power in some way, which makes sense in a lot of ways because water is a shared resource. It flows through the hydropower facility, makes power, and then can go on and be used for recreation, irrigation, and everything else.

*Ms. Matsui. Okay. Absolutely. Now, in my home state of California, the climate crisis is changing the way we approach our energy portfolio. Droughts are quickly becoming more regular and severe, and wildfire season has grown from a few months of the year to a truly year-round threat. As we look to the future, I believe considering climate change when crafting license conditions will be equally important, really critically important.

Mr. Wood, during licensing, when developing conditions, how can considerations of how projects may be affected by our changing climate help encourage more resilient

infrastructure?

*Mr. Wood. I do -- thank you for the question. I do think that one of the good things to come out of the Uncommon Dialogue process was the recognition that climate change needs to be a factor that is considered when you are relicensing a project for 30 to 50 years for some of the reasons that were described earlier. So I think that is a really important consideration as we deal with the prolonged drought and extreme flooding and wildfires in states like California in particular.

All of our federal processes, whether they are those delivered by FERC or by the federal agencies like the Forest Service and the BLM through laws like the National Environmental Policy Act, increasingly, they should be looking at their analyses through a climate lens.

*Ms. Matsui. Great. The Federal Power Act or I guess we call it the FPA includes several protections that are fundamental in our approach to stabilizing the environment and promoting healthy waterways and recreation. They represent bedrock achievements in environmental sustainability and need to be preserved. It is also important to ensure that the FPA keeps pace with the renewable demands our energy portfolio must include. Mr. Wood, do you think we can reduce the timeline for the licensing process without weakening the key environmental

protections in Section 4(e) and 18?

*Mr. Wood. I think that was probably directed toward -- towards me, so let me quickly answer. I think the compromise package that we have put forward does exactly that. We clarify existing case law to make it clear that when imposing mandatory conditions, you have to be reasonably related to project effects. Reasonably related to project effects, in my mind, is a very reasonable standard. It is what the case law and the courts that have looked at this have required.

But unfortunately, often, agency staff are not familiar with that case law. So we get bogged down in fights about that. But I think it is quite reasonable and very protective of the environment to say that agencies can impose mandatory conditions as long as they are reasonably related to project effects.

*Ms. Matsui. Okay. Well, thank you very much. Our time has run out. I yield back, Mr. Chairman.

*Mr. Rush. The gentlelady yields back.

The chair now recognizes the gentleman from South Carolina, Mr. Duncan, for five minutes.

*Mr. Duncan. Thank you, Mr. Chairman. You know, now, more than ever, Americans are realizing the importance of access to reliable and affordable and secure energy. FERC plays a critical role in our energy supply, particularly as

it relates to electricity generation. Unfortunately, bureaucrats and independent agencies across the board have infused political and policy motivations in their regulatory licensing decision.

The Uncommon Dialogue proposal being touted today increases FERC's climate change obligations by requiring FERC to give an equal consideration to addressing the effects of climate change and licensing decision. Let's be clear. They don't like fossil fuels. They are going to do anything they can to stop fossil fuel generation and push this country toward their utopian idea of green power. This is an example, the Uncommon Dialogue. It is a prime example.

Also requires FERC to consider the reasonable and foreseeable effects of climate change -- whatever the intent of these proposed new provisions, adding new terms unto the statute can have unintended consequences. We have already seen FERC use climate change motives slow down the licensing of critical energy infrastructure, and this would make the problem even worse. It concerns me, when thinking of our energy future as a country, and specifically for South Carolina -- South Carolina is going to require an all-of-the-above approach. I support an all-of-the-above approach but also know what works to provide 24/7/365 baseload power supply for our manufacturing and our

residential requirements. I am hopeful we can expand our hydro footprint, but we need to implement licensing reforms to do so. We can start with H.R. 1588, a bill I cosponsored led by Leader Rodgers.

Currently, Duke Energy in my district in the Carolinas operates two pumped storage hydro plants, the Jocassee Pumped Storage Hydro Station and Bad Creek Pumped Storage Hydro Station. It is a great example of battery storage if you are going to use wind and solar, by the way. Today, I want to talk about Bad Creek. This facility has been in operation since 1991. I visited up there when they were building it. It generates $10.5 million in tax revenue for Oconee County every year.

Currently, Duke is in the process of adding an additional 280 megawatts of capacity to the facility, which will bring the total output of the facility to 1640 megawatts. And that is equivalent to two large nuclear reactors. What is even more exciting is Duke recently filed a pre-application document with FERC to, one, renew the licensing, existing license for Bad Creek for 40 to 50 year -- additional years and to possibly add a second powerhouse which would double Bad Creek's capacity without adding any new dams or any new reservoirs using the existing infrastructure so big deal. Pumped storage hydro is really a great integrator of technologies that allows clean energy

technologies like nuclear power and solar and wind all to work together, store that energy, use it when it is needed.

Mr. Woolf, I know some people may not be familiar with pumped storage hydro and all of its capabilities. I wanted to see if you could elaborate a little bit on my comments and give your perspective on pumped storage hydro.

*Mr. Woolf. Sure. Thank you very much. You raised a number of really important points. Like you, I also support 1588, that license reform package. In fact, the joint legislative package includes most of those provisions. It really builds on that framework. And I think this is a good bipartisan progress. You talked a little bit about the climate change provision in this. Industry supports that provision for two reasons.

First of all, water is our -- is our fuel source. So we need looking at that water resource is critically important. And then secondly, this kind of clarifies FERC's authority to take -- to take into account the positive role that hydropower plays as an emission-free resource. So those climate change provisions are something that industry is comfortable with. And I love your question about pumped storage. It is critically important as we do go to a more variable grid. You need to have the flexibility that pumped storage can provide. A lot of those pumped storage facilities -- I am not sure about Bad Creek. But a lot of

them were built to balance out nuclear power where the nuclear power at night needed someplace to generate. Now we are using the pumped storage to balance out the excess solar that --

*Mr. Duncan. Peak demands. Yeah.

*Mr. Woolf. So I would love to take a tour of Bad Creek with you one of these days. Actually, just coming back from a pumped storage facility earlier in the week. They are fascinating, beautiful facilities. You would never know it is there, but they are keeping the lights on around the country.

*Mr. Duncan. Yeah. I appreciate that.

The remaining time, let me just say this. We need a loser pay system in this country because we have seen too many times environmentalist groups stop projects, even stop bidding on oil and gas leasing and proven reservoirs because there was going to be an environmental case filed, litigation, litigation, litigation, litigation. Finally, the company says, "I can't do anymore.''

I am not going to mention one company. We worked on a pipeline. That was the case. If it is a loser pay, we wouldn't see all that and could actually have commonsense energy production and exploration in this country.

With that, Mr. Chairman, I yield back.

*Mr. Rush. The gentleman does yield back.

The chair now recognizes the gentlelady from Florida, Ms. Castor, for five minutes.

*Ms. Castor. Thank you, Mr. Chairman. Welcome to our witnesses. It is more clear than ever that we need a secure domestic clean energy power sector. And thank goodness we have hydropower that is helping with that. In 2021, hydropower was about 6 percent of our overall electricity sector and one-third of renewables. So we see hydropower as a very important part of growing the -- the clean energy economy in America.

And it is so -- as that happens, we are going to need more collaborative efforts, industry, the environmental advocates, tribal nations sitting down and working on those solutions. So kudos to all of you for doing that. So let's talk a little bit about how we can -- how hydropower can accelerate the transition to a resilient clean energy economy.

We are really in a bind, though, aren't we? What I have listened to today is that we want to do more on hydropower, but the climate-fueled droughts and the greater volatility, unpredictability is a great cause for concern. So I appreciate, Mr. Woolf, you saying it is very important for FERC to be considering the impacts of climate as we go forward.

Mr. Wood, would you go into a little more detail?

Congresswoman Matsui asked you about how that is going to work. And could you give us a more practical step-by-step on how you -- how these are going to go hand-in-hand increasing hydropower but also taking into account the impacts of climate?

*Mr. Wood. Thank you for your question. I just -- I think I just want to make one point off of that, that it is important to remember, in spite of the trying bureaucracy, how important the Federal Power Act and, in particular, how important Sections 4(e) and Section 18 have been to recovering rivers that were impacted by dams that were built before the environmental era. And I think our position, basically, is that you can improve the regulatory process without touching Sections 4(e) or 18.

When it comes to climate change, we have seen it playing out across the country. It is no different in Florida. But prolonged drought, decreased snowpack, earlier melting of the snowpack, which has impacts on river flows and late-season flows for irrigators -- so I just -- I don't think there is a way around analyzing the effects of climate change on every federal activity as we move forward.

*Ms. Castor. And we are so conscious of the cost right now, the cost on consumers, the fact that, last year, we paid out over $148 billion due to climate-fueled catastrophes and droughts. But I am also quite conscious of

what is happening on equity. And thank you, Mr. Kiernan, for pointing out the challenges for biodiversity and climate and equity.

And Ms. Pavel, tribal nations are using long-standing tenants of environmental stewardship -- thank goodness -- to help fight the climate crisis. Tribal sovereignty and economic development must be a part of our national efforts as we transition to a clean energy economy. How does the proposal we are discussing today enhance tribal sovereignty and economic prospects?

*Ms. Pavel. Well, it allows the tribes to step into the shoes of the secretary when a project is on tribal lands and imposing conditions that are necessary to protect the purposes for which the tribal reservation was established, which was, in most instance, to be a permanent homeland for that tribe and allows imposed conditions that will address the, you know, reasonable conditions that address the project impacts on that reservation.

Also, one of the other areas we haven't talked about today is where a project impacts treaty-protected resources so fisheries, resources. And there -- that -- under the authority of the discretionary, it gives a broader voice to tribal concern. And the secretary has to, as they are putting forward these discretionary conditions necessary to protect these treaty-protected resources, cultural and

fisheries and natural resources, it gives tribes a greater voice in that aspect of it. And what we have talked about collectively is it brings all the stakeholders together early in a transparent process. People have to sit at that table early and say, "What is your issue? What problem are you seeing? What impact? How do we solve that problem?'' And it forces the stakeholders to sit down and work it out.

*Ms. Castor. It is a great example for how change can be made, so thank you again to all of you for this collaborative effort. And I yield back.

*Mr. Rush. The gentlelady does yield back.

The chair now recognizes Mrs. Lesko, the gentlelady from Arizona, for five minutes.

*Mrs. Lesko. Thank you, Mr. Chairman, and thank you to all of you for being here today and spending hours with us. The other day in the Wall Street Journal, there was an article, which I will show right here. It is entitled, "Electricity Shortage Warnings Grow Across U.S. Power Grid Operators Caution That Electricity Supplies Aren't Keeping up with Demand Amid Transition to Cleaner Forms of Energy.'' And I think all of us, both Republicans and Democrats and all of you, agree that hydroelectric power is part of the solution. I have several questions. All of them are for Mr. Woolf. The first question is can you confirm that the nonfederal hydropower development considered and proposed

under the Uncommon Dialogue is not intended nor will impact federal hydropower projects or water or power rights, contracts, or obligations and that any such development would be pursuant to the Bureau of Reclamation's lease of power privilege process, not FERC licensing?

*Mr. Woolf. Yes.

*Mrs. Lesko. Okay.

*Mr. Woolf. This proposal is just the Federal Power Act.

*Mrs. Lesko. Fantastic. All right. Then my next question to Mr. Woolf, I understand that the National Hydropower Association has been active in talks with groups, including American Rivers and tribal nations in what has been referred to as the Uncommon Dialogue. Does your organization support the removal of federal dams?

*Mr. Woolf. No.

*Mrs. Lesko. Okay. And does the National Hydropower Association support legislation that would raise the cost for customers of existing federal hydropower projects?

*Mr. Woolf. No.

*Mrs. Lesko. Good. Mr. Woolf, the Uncommon Dialogue meeting between your organization, American Rivers, and tribal nations has yielded several proposed amendments to the Federal Power Act, which you say is intended to enhance the economic value and environmental benefits of hydropower

projects and healthy rivers. In these meetings and discussions, were customers of federal hydropower generation projects or the national organizations representing them, such as the American Power -- Public Power Association, the National Rural Electric Cooperative Association, and the National Water Resources Association, included?

*Mr. Woolf. I think we have invited them to participate, but I don't think they have been directly involved.

*Mrs. Lesko. Okay. Mr. Woolf, many Arizonans, particularly those in rural areas, rely on power from federal dams such as Glen Canyon and Hoover Dams. Why weren't the customers included in these discussions?

*Mr. Woolf. This has been a -- as has been mentioned, an uncomfortable dialogue. This is really unprecedented to come together with these groups. This is a continuing process. So we are continuing to bring in more and more people as we can, but we have got to -- we have got to start somewhere.

*Mrs. Lesko. Okay. Good. Mr. Woolf, an October 2021 report released by the Department of Energy's Waterpower Technologies Office titled "An Examination of Hydropower Licensing and Federal Authorization Process'' examined which factors have the greatest impact on the hydropower licensing process.

One of the key findings in the report dealt with the sheer amount of bureaucracy involved in the permitting process. For example, hydropower licensing in the United States requires the participation of up to 11 federal and state agencies depending on the plant's location. This is compared to five to six agencies involved in other countries for their hydropower licensing process. Can you speak more -- and I know you have already -- but more to how this affects the timeline of hydropower projects?

*Mr. Woolf. As has been touched on earlier, one of the biggest challenges is the lack of process discipline. There is lots of different organizations, different federal agencies, different state and local agencies. And there is not -- there is no discipline if they miss those timelines. So that is one of the innovations in this joint proposal, is to get everyone together up front, establish a joint schedule, a joint timetable, figure out the scope of studies. And then at the back end, if there are inconsistent provisions, figure that out as well so making FERC the lead agency for that kind of coordination, we think, is going to speed things up. It doesn't take away the role of the other agencies. They still have a voice. So we think that is also environmentally protective.

*Mrs. Lesko. Thank you, Mr. Woolf, and thank you to the others, and have a great afternoon. And I yield back.

*Mr. Rush. The gentlelady yields back.

The chair now recognizes the gentleman from California, Mr. Peters, for five minutes.

*Mr. Peters. Thank you very much, Mr. Chairman.

Thanks to the witnesses for being here this long time. Our energy challenges from grid reliability to volatile oil markets demand a technology-neutral approach to achieving climate stability and energy security. And hydropower is a clean baseload source of energy that can help us meet our clean energy goals. However, as we have discussed, new projects are being stalled by an inefficient regulatory process, and these regulatory barriers don't just exist, by the way, in this particular area. We see it from constructing interstate transmission lines, which this committee has dealt with, to restoring our forests and fighting wildfires.

So we need to come together and streamline these processes so that projects can be approved more quickly while still meeting high environmental standards. We made progress a few years back in 2017. I introduced the Hydropower Permit Extension or HYPE Act to cut red tape in the construction permitting process for hydropower projects. Ironically, that was allowing more time for things to be approved, which is kind of what we are not talking about here. But we want hydropower to be approved.

In my district, the City of San Diego is undertaking a project jointly with the San Diego County Water Authority to develop 4,000 megawatt hours per day pumped hydrostorage hydropower facility at the San Vicente Reservoir. And once completed, that facility will provide renewable energy that could power 135,000 households in the greater San Diego area. And I hope the committee and our witnesses will join me in supporting this project and others like it across the United States.

A lot of these questions have been answered, but Mr. Woolf, I am going to give you one more shot at something you have touched around for a while. You discussed the, quote, Byzantine licensing and relicensing system for hydropower projects. And as a result of this system, you said that more than 40 percent of hydropower industry asset owners are actively considering decommissioning a facility. You said that in your oral statement as well. Just elaborate for us briefly on how the regulatory system is preventing more clean energy deployment in this --

*Mr. Woolf. Thank you for your question, and thank you for recognizing the urgency of this issue. We are facing a wave of relicensing, with 45 percent up by 2035. And at the same time, we are facing an increasing trend of license surrenders. I did not even realize until preparing my testimony that 17 new projects had filed for license

surrenders in the last two years. It really is an alarming trend. I am coming back earlier in this week from a conference where should you invest or should you leave it was one of the topics that the conference was talking about. And it is because of the licensing process. It takes so long. There is so many agencies involved. It is so uncoordinated. We certainly respect the rights for all of these laws to be implemented. But the lack of clarity on when will this effort end is leading to investment decisions, hey, let's just build a different technology that will only be there for a few years, but at least we know when that will end.

*Mr. Peters. Right. And do you feel like the project that you participated in, the Uncommon Dialogue, that the recommendations address that issue sufficiently?

*Mr. Woolf. We do. I mean, this is a remarkable situation to have the river community, tribal representatives and industry agreeing on a package together. And we urge Congress not to -- not to miss this opportunity.

*Mr. Peters. Mr. Kiernan, I know how much -- how devoted you are to the health of our rivers. And I share that concern about environmental quality. I am of the opinion that there is so many instances where we can achieve high environmental standards with less drag on the economy, less time, and less risk to investors. Can you elaborate on

how we can expedite this licensing process for hydro projects while we maintain high environmental integrity?

*Mr. Kiernan. First let me just concur with kind of your assumption. We believe as well that we can improve the processes and improve the health of our rivers and have significant, if not, increasing amounts of hydroelectric generation for our clean energy grid of the 21st century. So agree with that. I think this proposal that we are jointly putting forward does that with greater transparency that we are suggesting, does that with the license surrender clarity and process.

By including climate change, that also helps getting all the information on the table. I will also just say that, over the last many decades, we, as a country, have learned what works well for fish passages, how to better manage our rivers. So I think, with improved processing that we are suggesting for FERC and with the improved knowledge that we have gained, we can do a lot better job improving the health of our rivers going forward. So we are optimistic we can make progress.

*Mr. Peters. I recall in our last conversation about this that the permit process is so unwieldy and unbounded. And I hope that we can -- we can do something that provides more certainty and better timelines and better results and actually, frankly, clean energy with environmental

protection. I think that is our goal.

*Mr. Kiernan. If I can just echo as well Mr. Woolf's comments on the coordination up front by the different agencies we think is key to be able to speed up the process and have it more predictable because get the agencies up front, have a joint study plan. Here is what we need and get that all clear up front is better for the entire process and all constituents.

*Mr. Peters. Thanks again to you all.

And Mr. Chairman, I yield back.

*Mr. Rush. The gentleman's time has expired.

The chair now recognizes the gentleman from North Dakota, Mr. Armstrong, for five minutes.

*Mr. Armstrong. Thank you, Mr. Chairman.

The Uncommon Dialogue proposal that has been presented to this committee seems to have potentially conflicting goals when it comes to the deployment of hydropower capacity. Goal 1 is purported to be a streamlined licensing process that improves coordination, and Goal 2 seems to be an increased regulatory requirements and expand the scope of the environmental review. And really, I do appreciate the intention of streamlining licenses and the recognition of -- particularly of tribal governments and tribal stakeholders in this process. It seems that several of the advocated reforms will only serve to make the process more --

potentially make it more cumbersome. Mr. Wallen, the Uncommon Dialogue endorses the concept of offsite mitigation and dam removal. Do you have any concerns with these provisions?

*Mr. Wallen. You know, we have talked earlier. And as I said, Grant PUD is fully committed to our environmental responsibilities and being good stewards of the resource that we get the opportunity to manage. We have a long and proven track history of doing so, everything from the fish bypassed installation that we performed at both Wanapum and Priest Rapids. I mean, we are talking capital investments in, you know, excess of $100 million.

Our fish habitat and acclamation facility is another capital infrastructure investment, $65 million. But we are seeing the rewards of those. If you look through our fish bypass survival, between Wanapum and Priest Rapids, one area is 96 to 98-and-a-half percent. The other is 96 to 100. This is survival studies over the course of several years. So the proof is in the pudding, in our opinion.

I think that we are all in agreement here today that licensing reform is critically important. We also agree that dams which don't provide values to society can be candidates for removal if dam owners agree. I think where we have discomfort is where we hear arguments for dams that do provide tremendous societal value, and we do not want to

conflate our support for licensing reform with support for removal of productive federally owned dams. And I just wanted to make that clarification to my testimony.

*Mr. Armstrong. Thank you. I appreciate that. And this part of it -- and it appears that the draft also expands the scope of environmental remove and moves, in some cases, potentially the goalpost by making relicensing of existing dams more burdensome. The draft requires evaluation and potential mitigation of past effects caused by the construction of the original dam like in North Dakota.

I mean, we have the dam which potentially close to 100 years ago -- this provision -- and this is where I think I have -- I appreciate everything. But it seems likely to lead to lawsuits and other efforts to remove dams that are deemed to have an environmental impact. Beyond that, what would be considered acceptable? Given your experience in the Columbian Basin, do you have any recommendations about balancing those effects?

*Mr. Wallen. Can you repeat the last part of your question there?

*Mr. Armstrong. Well, it seems like this could lead -- well, I will back up. When we do this, not only is the increased permitting -- and we are talking about -- you were mentioning investment before. But there is -- and maybe I

will move on because I am going to run out of time. But the other problem here is -- one is the increased permitting process, part of the problem that puts constraints associated with the time -- the time it actually takes to do the permitting process. But the second problem is every single piece of paper and duplicative thing that you have to answer leads to the second part of this problem.

And what that problem is, is we have to get the power from where it is being produced to where it goes. And you don't have to go very far. You can go into New England and watch what has happened over the last seven years. I mean, you had the Northern Pass project in New Hampshire that went away. Massachusetts passed a law.

And just recently, the New England Clean Energy Connect was stopped in Maine. And the reason I bring this up is, you know, as somebody who has dealt with lots of pipeline litigation and all of those different issues, the people who -- it turns out nobody likes utilitarian infrastructure. They really don't like it to go through a forest. And the people who are sometimes on sides or sometimes not -- I mean, you are dealing with indigenous groups in Canada that were a problem to that. You are dealing with the Sierra Club that was a problem to that.

You are dealing with the Maine voters who just roundly rejected that. So I appreciate everything that is going on

here, but the -- every single time in an effort to streamline something, if you add duplicative paperwork or ask for things in a different way, you can deal with the permitting side from the regulatory side. But the litigation side that is coming down the pipe -- and I say this a lot, and I have said it on infrastructure.

They don't have to stop it everywhere. They only have to stop it one place. And bottlenecks are the enemy to these types of projects. So all of the work you are doing, I think, is fantastic. But without litigation reform and without streamlining the permitting process, I wonder, very quickly, if we are going to -- if we are going to see the results of whether -- Mr. Woolf, you have something you want to say? You have four seconds, but I am last, so they will let you go a little bit.

*Mr. Woolf. Greatly appreciate your comments about regulatory -- increasing regulatory requirements. We don't see that in this proposal. We see the offsite mitigation as a tool that only licensees can request. And the rest of these are factors that the industry already deals with. So we do see this as a -- as a regulatory streamlining effort.

*Mr. Armstrong. I hope you are right.

*Mr. Wallen. And if I --

*Mr. Armstrong. Yeah.

*Mr. Wallen. -- might also just add, it is our sense

and hope that the recommendations we are making in the proposal will reduce litigation long-term by having clarity in what the process is and isn't so the long-term litigation will be reduced.

*Mr. Armstrong. And I am 33 seconds over, but I think one thing Ms. Pavel would appreciate is that if we do this and allow the tribal governments autonomy, let them make the decision and take some of the other agencies out of the equation because that will help both speed it up and decrease litigation. So with that, I yield back.

*Mr. Rush. The gentleman yields back.

The chair now recognizes the gentleman from Oregon, Mr. Schrader, for five minutes.

*Mr. Schrader. Thank you, Mr. Chairman, and thank all of you for all the work you have done and sitting through this long hearing as we pop in and out. Mr. Woolf, I guess basic question is how much time are we going to save, you know, with the Uncommon Dialogue process? If it is seven to ten years, now what is the anticipation of your --

*Mr. Woolf. Yeah. It is certainly going to save a lot of time for the expedited nonpowered dams and for the closed-loop and the pumped storage facilities, which is huge. That is growth. That is flexible new generation the country needs. For relicensing, it is a little clearer. We are not on a shot clock, but we think by doing these

reforms, we are going to reduce -- we are not going to get bogged down, and it is going to save years off the process.

*Mr. Schrader. So couple years saving?

*Mr. Woolf. I think so. It is going to vary facility by facility, though.

*Mr. Schrader. Everyone generally agree with that assessment?

*Ms. Pavel. Yeah. I agree with that. I mean, again, one of the current barriers is tribes have to knock on the agency's doors as opposed to sitting right down with the operators. Absolutely.

*Mr. Schrader. Okay. Okay. Again, Mr. Woolf and maybe the others for that matter, unclear from my brief reading of what you all have done. Is there an expectation of a parallel process by the different federal agencies so you are not just going from one to the other, but it is being done in parallel, so it can be done in a shorter period of time? Is that the anticipation?

*Mr. Woolf. That is exactly the -- one of the solutions here. There has not been process discipline between the various agencies. And this would require FERC to be the lead agency to set up that coordinated schedule upfront of studies of who is going to do what, coordinated upfront. We think that will create a lot of greater clarity.

*Mr. Schrader. Excellent. Okay.

I guess, Mr. Wallen, just -- I come from Oregon. You are from Washington. Transitioning to clean energy is a big deal for our states. We spend a lot of time doing that, trying to arrest the harmful effects of climate change. Hydro is a big piece of that. Our home states have made notable strides, I think, in, you know, addressing that through setting some pretty bold clean energy goals. And want the federal process, I think, to complement what the states are doing. How do you see the role of hydropower changing as -- in response to what the states are doing and what we may -- what is our role here at the federal level?

*Mr. Wallen. I think, as we have talked about before, as some states take different postures and accelerated timelines on clean energy transformation and goals, hydropower becomes much more important in the short-term as well. Just being able to have the ancillary services, the load following, the grid reliability characteristics, the dependable, dispatchable technology that just doesn't exist current -- in any other current form that is licensed or approved on widescale use.

So I believe we will continue to see that into the future. But as we look at it today, I don't think that it could be any more important than it is right now for us to continue to leverage those resources in cost-effective

manners for the benefit of society, for the benefit of our customers.

*Mr. Schrader. Okay. Okay. Big part of the Bipartisan Infrastructure Law was $52 million to help build out electrical vehicle charging stations in my home state. As we work to electrify our transportation systems and clean up our energy, what is the best way we can leverage constant reliable hydropower to support the intermittent wind and solar? I guess, Mr. Woolf, with you --

*Mr. Woolf. Thanks for the question. As we are electrifying and cleaning up the grid, I think hydropower is that flexible, dispatchable resource. So one of the most important things we can do is the license reform package. We are also, all of us, I believe, strongly supportive of Representative Kuster's bipartisan Twenty-First Century Dam Bill. There are also provisions in the -- in the -- in the various tax packages. And we are concerned that there be tax parity and that hydropower not be left behind in whatever tax package may go through Congress so --

*Mr. Schrader. Very good.

Mr. Wood, I guess last question for you. How is the power restored -- use that term in Penobscot. You know, when you removed those dams, how did full restoration occur? What did you do? What did they do?

*Mr. Wood. Interestingly, sir, we actually owned the

dams for a while. We were part of a collective that bought the dams. The other dams that were on the river just ran their turbines harder.

*Mr. Schrader. Okay. Very good.

With that, I yield back, Mr. Chairman. Thank you so much.

*Mr. Rush. The gentleman yields back.

The chair now recognizes the gentleman from Indiana, Mr. Bucshon, for five minutes.

*Mr. Bucshon. Thank you, Mr. Chair.

I support the development and expansion of hydropower in the United States as part of an all-of-the-above energy strategy. In fact, I authored the Promoting Hydropower Development at Existing Nonpowered Dams Act that has been mentioned in the hearing already, which President Trump signed into law, and a bipartisan Water Resources Development Act of 2018.

The Promoting Hydropower Development at Existing Nonpowered Dams Act cut through the red tape and instructed the Federal Energy Regulatory Commission to create in an expedited permitting process for modernizing existing dams to provide hydropower that will result in a final decision from FERC in two years or less, which went from 10 years to two years, we hope. My bill addressed the key -- a key opportunity to increase a hydropower generation in the

United States. This bill came about as the result of a 2012 U.S. Department of Energy report which estimated that nonpowered dams have 12,000 megawatts of potential capacity that could be used to increase U.S. hydroelectric generation. Additionally, a year after Congress passed the bill, the U.S. Energy Information Administration reported that 32 nonpowered dams were planned to be converted to hydroelectric dams, which EIA estimated would add about 330 megawatts of clean, renewable electrical generating capacity to the grid.

And last summer, I had a chance to ask FERC Chairman Richard Glick before this committee about the progress being made under my bill. Chairman Glick told this committee that FERC had implemented the regulations and that FERC had received a few applications that are making their way through the process. He also mentioned that FERC is working with industry to expedite the completed applications -- completed application required by FERC's rulemaking.

So Mr. Woolf, has FERC interacted with any of your members regarding this process for retrofitting nonpowered dams?

*Mr. Woolf. My understanding is that not a single facility has been able to use those provisions.

*Mr. Bucshon. Yeah. You know, so has FERC done anything to help expedite your members -- to help them

expedite their applications?

*Mr. Woolf. The way that provision is being interpreted such that it does not include the prelicensing activities makes that provision -- it doesn't actually expedite anything if it only starts once all the prelicensing activities have ended. FERC's process at that point is about two years anyway. So it hasn't actually had the effect that all of us wanted.

*Mr. Bucshon. Okay. So once again, a federal agency is not following the intent of Congress, it seems to me, which is not unusual. We have this happen across agencies when they don't want to do something. And I am not sure that is what they want. But, you know, it is too bad because it was bipartisan. We spent a couple years putting that together. And when I asked Chairman Glick last year about what more could be done to improve the process outlined in the bill, he told us -- he told this committee that it was, quote, too soon to really tell whether additional changes need to be made and that we should let the existing process work out for a few years.

Mr. Woolf, I see that the legislative proposal before us today includes provisions concerning the licensing process for modernizing existing nonpowered dams. What changes does the legislative proposal make relative to existing statute governing the issue? That would be the

Uncommon Dialogue.

*Mr. Woolf. This should be low-hanging fruit. You have already got the dams there. They are providing a purpose. Let's add power, get the clean, flexible, reliable generation. But it goes through this -- this Byzantine process that is just way too long. What the legislative proposal would do is start that shot clock when the applicant files its application -- its notice of application and FERC says that it is -- that it qualifies. So that would start that two-year shot clock in a way that, apparently, we weren't clear enough four years ago.

*Mr. Bucshon. Okay. Well, that is great. I would be for that. So the Uncommon Dialogue proposal must -- took into account the previous legislation when crafting that section of the proposal, I am assuming.

*Mr. Woolf. That is right. It would be tailored changes specifically to the existing law from four years ago.

*Mr. Bucshon. And FERC obviously sought some feedback on that section or just --

*Mr. Woolf. We have had several conversations with FERC, but we have not heard specific feedback on that provision yet.

*Mr. Bucshon. Okay. Great.

Ms. Pavel, do you have something you want to add to

that? Your --

*Ms. Pavel. Well, I think the -- the discussion you are having vis-a-vis the expedited process was really -- you know, one of the guiding principles we had in the Uncommon Dialogue process was what problem are we trying to solve.

*Mr. Bucshon. Yeah.

*Ms. Pavel. And that was a problem that was identified by all of the stakeholders. How do we solve that now? How do we make this process work better so --

*Mr. Bucshon. That is great because the intent was, of course, is to streamline the process and where applicable and where people want it, to convert a nonpowered dam to a hydroelectric dam. Because of the advantages of doing that versus creating an entire new hydroelectric -- you know, de novo in a place where there is not a pre-existing dam. So I appreciate that.

Thank you, Mr. Chairman. I yield back.

*Mr. Rush. Does yield back.

The chair now recognizes Mr. Pence for five minutes.

*Mr. Pence. Thank you, Chairman Rush, and Ranking Member Upton.

And thank the witnesses for being here today. I know it has probably been a long morning. I am going to try to avoid repeating questions or points if I may. My district is Southern Indiana. We have the Ohio River runs from my

hometown to Congressman Bucshon's, so we are -- I guess we are tag-teaming today. So, again, thanks.

So sitting on the Ohio River in my district is the Markland Hydroelectric Station, which produces 65 megawatts of electricity for Switzerland County. It is about 52,000 homes in that very remote county. This station has been providing affordable, reliable, and carbon-free electricity to communities like Florence, Indiana since 1967.

The Ohio River, again, which runs on the southern part of the Hoosier state, is a perfect example of an abundant source that holds enormous potential for surrounding communities, particularly when we are talking about the electrification of the transportation industry or even those that talk about getting rid of coal, which I have got two coal plants in my district on the river.

But the onerous process to permit, license, or relicense hydroelectric plants makes new projects uneconomical, let alone the delays to interconnect new transmission lines. And how would you do that; right? Do it after the fact. Just this year, Markland completed a 10-year relicensing process -- and I know you have been hearing some of those stories all morning -- for a 10 percent increase in power output.

Mr. Wallen, would hydro reform legislation like what has been proposed by Ranking Member McMorris Rodgers make it

easier to expedite these types of relicensing and upgrades for new technology on my Ohio River?

*Mr. Wallen. Yes. I believe so.

*Mr. Pence. And that is the simplest answer. And so I would say to my peers across the aisle, come on. Let's figure out how to get this done and work this out. And I know you are all doing a great job and working together, as Ms. Pavel said, and I appreciate that. But I think we ought to move on with this. And with that, Mr. Chair, I yield back.

*Mr. Rush. The gentleman very kindly yields back. And the chair certainly want to commend the gentleman for his outstanding compassion on our witnesses. This concludes the witness questions, and I would like to thank each and every one of you for your participation and your expert testimony in this committee hearing, subcommittee hearing. And that said, I want to remind members that, pursuant to committee rules, that they have 10 business days to submit additional questions for the record to be answered by the witnesses who have appeared today. And I ask the witnesses to respond promptly to any such questions that you may receive.

Before we adjourn, I really do want to request unanimous consent to enter into the record the following documents, a letter dated May 12th, 2022, from the American Public Power Association; a letter dated May 4th, 2022, from

the Confederated Tribes and Bands of the Yakama Nation on the Uncommon Dialogue Hydropower River Restoration and Public Safety Amendment on Tribal Authority; and lastly, a May 12th letter dated -- a May 12th letter from NOAA -- from the NOAA Corporation to the Committee on Energy and Commerce on the Uncommon Dialogue; and also, lastly, a letter from Mr. Grothman, a member of Congress and also from Mr. Pocan, a member of Congress. It has been agreed to by both sides. This letter is a support letter for the bipartisan bill.

Without any objection, the documents will be entered into the record.

[The information follows:]

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

*Mr. Rush. At this time, the subcommittee stands adjourned, and the subcommittee is adjourned.

[Whereupon, at 1:28 p.m., the subcommittee was adjourned.]