Testimony of

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Subcommittee on Energy

Modernizing Hydropower: Licensing and Reforms for a Clean Energy Future.

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Chair 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.

I am the CEO and President of Trout Unlimited (TU), the nation's largest trout and salmon conservation organization. TU is a non-partisan, not for profit organization representing more than 300,000 members and supporters across the country, sportsmen and sportswomen, many of whom are your constituents.

Trout Unlimited has a deep and abiding interest in the relationship between dams, hydropower projects and trout and salmon fisheries. Trout and salmon are highly migratory fish. When their migratory paths are blocked, and the cold water they need is warmed too much, their life cycles are compromised. Science tells us that dam construction and operation has caused, or contributed to, harm and extinction of many species of trout and salmon in the U.S. Thus, we have a huge stake in ensuring that hydropower development is done right, and balanced properly, with the needs of people and communities who depend fish and wildlife resources of our waterways.

TU's mission is to bring together diverse interests to care for and recover rivers and streams so our children can experience the joy of wild and native trout and salmon. Our members and supporters live, recreate, hunt and fish along the waterways impacted by hydropower development. Our members and volunteers dedicate more than 700,000 hours annually in projects to restore and improve their local watersheds.

While we are passionate advocates for our fish, we see ourselves first and foremost as problem solvers. TU has a long history of engagement that stretches back to the early 1980's— in project-specific licensing and in regulatory and legislative processes — partnering with Tribes, states, and federal resource agencies, and of course utilities and project developers, to identify and implement collaborative solutions, balancing the needs of fish and wildlife with power production goals. In Congress, we have testified in this same room in 2002 on this same subject and worked hard with the person whose name is revered in this very room, our beloved friend John Dingell, prior to the enactment of the FPA amendments in 2005. On the ground, we have had some successes, and learned some hard lessons. From working with Avista Corporation to restore bull trout in northwest Montana, to working with

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Portland General Electric (PGE) to restore salmon and steelhead on the Deschutes River in Oregon, to working with Pennsylvania Power and Light (PPL) to restore Atlantic salmon on the Penobscot River, Maine, TU has a deep history with hydropower licensing. We have seen the process work well, we have seen it work poorly, and we have seen the ways in which improvements to the process could be valuable.

With this history in mind, TU was a participant in in the Uncommon Dialogue - along with representatives from industry, tribes and conservation interests – to identify and advance mutually beneficial license reform proposals to support hydropower development, advance tribal rights, and promote conservation and natural resource benefits. That effort resulted in a proposed suite of reforms to the Federal Power Act ("proposal"), which is the topic of discussion in today's hearing. We applaud this effort to find common ground and provide meaningful solutions to vexing issues on hydropower relicensing and the management of our nation's again dam inventory. We salute all who are participating, especially those friends who sit next to me today, American Rivers, Tribes, and Hydropower industry.

We support many of the concepts included in the package - in particular provisions related to tribal authority and language aimed at supporting state, federal, and tribal agencies participating in licensing proceedings. But there are key aspects of the package that we think are under-developed or that may need to be sharpened to avoid harm and unintended consequences. For example, the proposed modification of mandatory conditioning authorities under Sections 4(e) and 18 of the Federal Power Act are likely unneeded and at a minimum 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 federal and state resource agencies - to make further improvements to these concepts through the legislative process. When improvements are made, we look forward to fully supporting the legislation.

We will further outline our perspectives on the significance of the hydropower licensing process and where we see opportunities and pitfalls in license reform discussions.

Hydropower and the Licensing Process // Why the licensing process is important to Trout Unlimited

Hydropower has been a significant source of power for the Nation dating back to the earliest days of the United States. It helped establish our Nation, it continues to be a critical part of our power supply today and will be part of climate mitigation solution assets for tomorrow. But it comes at a price. Hydropower and dams can and do have significant impacts to rivers and streams and to migratory fisheries, such as trout, salmon, shad, and the habitats they rely on. Blocked fish migration, dewatered rivers and streams, changes in flow and sediment transport, water temperature warming, are some the well-documented impacts. These impacts have real world consequences for recreational and commercial fisheries, tribes and treaty resources and local communities.

A license term lasts between 30 – 50 years; the underlying infrastructure is likely to exist much longer. The licensing process is the critical juncture during which industry, regulators and affected stakeholders are able to work together to ensure that impacts are minimized and adequately mitigated.

The Federal Power Act (FPA) was established in 1935 to regulate the development of power from privately owned dams in a manner that successfully balanced the interests of hydropower developers and the interests of all other river users and communities who depend on healthy, vibrant rivers. The Act provided several protections for non-power interests, including 4(e), which requires any license within a reservation not interfere or be inconsistent with that reservation's purpose and Section 18,

which requires that licensees construct, maintain and operate "such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce" to protect fish populations.

In 1986, Congress amended the FPA (ECPA amendments) to ensure that in issuing licenses, FERC give "equal consideration" to a number of power and nonpower values, including "the protection, mitigation of damage to, and enhancement of, fish and wildlife… (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality." FPA Section 10; 16 U.S.C 797(e). The new law also provided a clear role for federal and state fish and wildlife agencies by requiring FERC to include conditions in the license to "adequately and equitably protect, mitigate damage to and enhance…fish and wildlife affected by the development, operation and management of the project" and to develop such conditions based on the recommendation of these agencies. (10(j) recommendations).

Through these authorities – Section 4(e), 18, and 10(j) - Congress developed a framework meant to ensure timely and effective fish passage and assurances of water quality above and below hydroelectric projects. TU relies on these resource agencies and these authorities to protect and restore our fisheries resources and to help ensure equal consideration of non-power values in FERC's licensing processes.

Because hydropower licenses can last as long as 50 years, and the associated infrastructure many years beyond that, tribes and natural resource agencies' roles in the licensing process provides a crucial opportunity to ensure that projects will be properly developed and operated to ensure our river resources are preserved for future generations. This opportunity is all the more crucial for re-licensing, as many of the projects coming up for relicensing in the next 10-15 years were developed prior to the existence of major natural resource laws or the 1986 equal balancing requirements and have not had significant updates or upgrades since their last license. The relicensing process provides our resource managers with the much-needed opportunity to ensure that these projects are updated and appropriately modernized.

Of particular significance to Trout Unlimited is the Section 18 fish passage authority. Section 18 authority to provide effective, appropriate, fish passage at dams is fundamental to addressing the impacts of hydropower dams on the nation's migratory fish. Lack of effective fish passage at hydropower dams is the primary driver of salmon declines and multiple ESA-listings on both coasts. Agency authority to prescribe fishways and establish performance standards to assess their effectiveness is essential to prevent salmon extinction.

Effective use of Section 18 and the other mandatory authorities have produced some outstanding results for fish and power across the nation.

The **Penobscot River Restoration Project** may be the best win win fish habitat restoration project conceived and completed so far in the United States. In a project cited as the inspiration for the Uncommon Dialogue discussions that bring us to you today, TU, other NGOs, the Penobscot Indian Nation, the state of Maine and several federal agencies agreed to the purchase of three critical dams in the Penobscot watershed by the Penobscot River Restoration Trust.

- The two lowest dams on the Penobscot, Veazie and Great Works, were purchased by the Penobscot Trust (YES! TU was temporarily a dam owner!) and were removed in 2012-2014.
- The Trust built an innovative nature-like fish bypass around the third dam in 2016.
- Licenses for all three dams were surrendered.

- Changes to the hydropower configuration at other dams actually resulted in a **net increase** in hydropower production while removing three significant barriers to fish passage from the watershed.
- Fish recovery was immediate. Before construction on the bypass was complete, nearly 2 million river herring, and 7,000 American shad had returned to spawn upstream of the removed dams.

Relicensing of two **Avista** dams on the lower Clark Fork River in Montana in the late 1990's and early 2000's is another excellent example of the importance of Section 18. In preparation for relicensing, Avista pro-actively asked FERC if the company could convene a collaborative relicensing group to work out license stipulations and mitigation upfront, instead of putting together a plan, having FERC review it, then go out to the public and await controversy, the usual FERC relicensing process. Montana Trout Unlimited was the main conservation group involved, along with Idaho Panhandle TU chapter. Following a few years of in-depth meetings and planning, Avista's license renewal included a record-breaking amount of funding (for the project size) for mitigation, about $200 million. Avista saw it as a much better deal than years of adversarial interactions, attorneys and likely litigation over mitigation. The mitigation package included funds for things like cutthroat and bull trout restoration, conservation easements/land purchases to protect habitat, fish migration studies coupled with fish passage projects, including fish passage at Cabinet Gorge dam. With lots of follow-up credit to Idaho Fish & Game, it has been a very big success for native trout and other assemblages of native and sport fish in that system. It stands as a model for how to do relicensing collaboratively, rather than combatively.

These are excellent examples of the balance provided for in law by this committee. Effective use of Section 18 brought stakeholders together to find placed based solutions to real life challenges. We seek more of these win-wins, not fewer.

Uncommon Dialogue license reform proposal

There are many positive aspects of the Uncommon Dialogue proposal**.**

Improvements for Tribal management of water and fisheries resources

The proposed reform package takes an important and long overdue step of further clarifying/expanding the authority for Federally Recognized Tribes to protect their lands, waters, other resources, and treaty protected rights. This is one of the very best aspects of the proposal.

Process coordination

Process coordination, communication and collaboration are critical aspects of an supporting a timely and efficient process. In the early 2000s, stakeholders involved in the hydropower licensing process worked together to develop the Integrated Licensing Process (ILP) at FERC to help improve coordination, maximize early planning and engagement, and move more efficiently and collaboratively through the licensing process. The ILP has been successful in many ways, including greater timeline certainty and efficiency and increased support for agencies to effectively engage as partners in the process.

The reform package proposes further process coordination steps, requiring FERC and other agencies and tribes to consult in development of a coordinated schedule, requiring status check-ins and further coordination on study plans, with the intent to make a more timely and transparent process. As noted, we support coordination, but caution that additional process burdens must also include additional resources to support the agencies. To that end, we are very supportive of cost recovery language aimed at supporting the agencies and tribes.

Agency funding to enhance capacity

The proposed reform package attempts to meet that challenge with measures aimed at supporting resource agencies. Specifically, for federal agencies, the proposal would clarify the existing FPA process to direct the portion of costs recovered in annual charges for Federal agencies be refunded to the relevant Federal agency directly rather than held in the general treasury. For administrative costs incurred by Federally Recognized Tribes and State agencies, the proposal allows for cost recovery through establishment of a "license reimbursement fund" at FERC. The revenues for this fund come from reallocation of a portion of other annual charges that FERC currently directs to the Treasury. We support these concepts as critical to ensure agencies are able to meet the new process steps.

Support the process for license surrender and for addressing non-operational facilities

We support provisions in the proposal which contains improvements to the FERC process to better facilitate decommissioning and a pathway for dam removal at sites where generation no longer makes sense.

Much of the nation's existing infrastructure is aging. Changing climate, changing electric system needs, new technologies and other pressures have changed conditions and, in some places, removing existing infrastructure may be the most appropriate step. As we review our existing infrastructure for potential dam safety needs and opportunities to add or increase power generation (whether adding power to a nonpowered dam, or adding additional capacity at existing powered dams), we should also look for opportunities to support and incentivize voluntary removal of projects that no longer serve a public purpose or where the impacts no longer justify the benefits.

Removing dams – even dams with existing or hypothetical power production values – can be done without detrimental impacts to power values. On the Penobscot, for example, TU helped build deals to replace every bit of power production lost in removing the dams by bolstering hydropower generation elsewhere in the basin without harming fish.

When we remove dams, we see clear results: healthier river ecology, and trout, salmon and steelhead moving back into their historic habitats upstream. No other restoration action comes close in terms of helping migratory freshwater fish species reach spawning waters and rebuild their populations.

Modification of mandatory conditioning authorities: Section 18 concerns

The proposed reform package would modify the language of Sections 18 and 4(e) to add new statutory language tying those mandatory conditions to project effects. While the modification is minor in appearance, the implication of modifying these foundational provisions is potentially significant.

Section 18 applies to any hydropower project that may affect the passage of fish species present in the project area (or species planned for introduction in the area). It authorizes the U.S. Fish and Wildlife Service and National Marine Fisheries Service to prescribe upstream and downstream fishway passage requirements. Existing statute plus **bold underline** proposed addition reads:

> [FERC] shall require the construction, maintenance, and operation by a licensee at its own expense of such … fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate **to address project effects and other relevant factors.**

Section 4(e) authorizes federal land managers to impose mandatory conditions on a FERC license for hydropower projects located on federal reservations. Existing statute provided with **bold underline** reflecting proposed additions in the UD proposal:

> [A license issued within a reservation] shall be subject to and contain such conditions as the [relevant Secretary], **or Indian Tribe as provided in section 823h of this title** shall deem **(A)** necessary for the adequate protection and utilization of such reservation **and (B) reasonably related to project effects on the reservation and its utilization.**

We strongly support the addition of Indian tribes to this section. We have concerns about the addition of part (B) language.

Proponents of this proposed language suggest that the intent is not to change the scope or effect of Sections 4e and 18, but simply to clarify what is already standard practice, namely, that agencies are required to provide reasonable rationale for their conditions. However, this new language could be interpreted as limiting the existing scope of the authorities, imposing new levels of scope and scale rationale and risks placing agency exercise of the authority under increased legal scrutiny and or causing a "chilling effect" on use of the authority. In our view, the simplest way to avoid changing the intent is to simply not change the law. The significance of these provisions is too important.

This proposed language change would introduce new uncertainty at a critical juncture – we are still working through relicensing of projects operating on pre-ECPA licenses, many of which have inadequate fish passage provisions. These relicensing provide once-in-a-generation opportunities to improve fish populations. These opportunities are increasingly important as the multiple threats facing migrating fish populations, especially endangered and threatened populations, are compounded by changing climate conditions. Changes to 4(e) and 18 could make it more difficult to address critical protection, mitigation and enhancement needs – such as addressing fish passage – at a time when fish are increasingly impacted by climate change.

We urge the committee, at an appropriate point in the legislative process, to bring agency witnesses to a hearing to gain their insights into these concerns to see whether they have merit or not.

Additional considerations for the committee

Hydropower as a climate solution

Climate change is having a profound impact on our nation's waters – and the coldwater fisheries that rely upon healthy habitat and cold, clean water. Dams and hydropower projects can – but not in all cases – further exacerbate these challenges for coldwater species. Trout and salmon depend on an abundance of clear, cold water, a feature which makes them particularly vulnerable to climate change. Fish in rivers are extending their ranges northward and migrating earlier to waters that were previously colder than the fish could tolerate. As coldwater habitats begin to warm, the ability of these populations to access coldwater habitats, from small headwater streams to deep river pools, will be critical.

As we consider opportunities to expand hydropower capacity, it is imperative that we also look for ways to reduce impacts and improve conditions for coldwater systems – this includes evaluating existing infrastructure to prioritize investment in repair, retrofit, or removal as appropriate.

Support strong funding to agency budgets to support early and consistent engagement

In order to carry out their duties in an efficient and effective manner federal resource agencies must be adequately funded in order to support their employees and their work. As noted above, we applaud the language in the in the proposed reform package to support cost recovery by federal, state and tribal agencies. We further urge the Congress to increase appropriations to the federal resource management

agencies in order to fund the staff positions that allow them to efficiently and thoroughly evaluate applications for hydroelectric licenses.

Twenty First Century Dams Act (H.R.4375 / S.2356), and thanks to Congress for obsolete dam removal funding in IIJA.

Trout Unlimited is proud to have been part of the Uncommon Dialogue effort with stakeholders representing dam safety, tribal, conservation and industry interests, including NHA, to develop bipartisan proposals to advance the rehabilitation, retrofit and removal of the nation's dams. This effort led to the development of the Twenty First Century Dams Act (H.R.4375 / S.2356), led by Representative Kuster (D-NH) and supported by many on this committee and to advance several key funding and investment provisions as a part of the bipartisan Infrastructure Investment and Jobs Act to support these goals. All of these proposals demonstrate the type of collaborative solutions that are needed to responsibly maintain and expand our nation's hydropower capacity – incentivizing upgrades and investments in our existing hydropower fleet, supporting responsible addition of capacity at existing infrastructure, and investing in repair or removal of infrastructure where appropriate.

Conclusion

Hydropower – when carefully sited and operated to minimize and mitigate impacts – can provide a responsible and low-carbon source of energy and provide an essential component of our nation's energy mix. Like any form of energy, hydroelectric development is not without impact and when it comes to rivers and aquatic ecosystems, dams and hydropower can have profound and lasting harmful impacts. It is important to get the balance right.

We believe that we can responsibly advance hydropower development without repeating the impacts of the past, but it will require collaboration and commitment to advancing the least impactful projects, improving conditions at existing facilities, and, if necessary, removing infrastructure where appropriate.

We are proud of our role in the collaborative effort that led to the development of the proposed license reform package. We support the groups stated goal of advancing mutual interests in a manner that "does no harm." While we have concerns on some of the details of the proposal, we intend to continue to work with and alongside our colleagues here today, as well as with Members of Congress and the broader community of non-profits, tribes, dam owners, and regulatory agencies who work in this arena to help ensure that a final legislative product is successful and allows all stakeholders to move forward together.

Thank you for holding this hearing today and for inviting us to share our perspective. We look forward to working with the Committee on this topic.