



Steve Moyer
Vice President of Government Affairs

April 11, 2017

The Honorable Lisa Murkowski, Chair
The Honorable Maria Cantwell, Ranking Member
Senate Committee on Energy and Natural Resources

Re: Statement of Trout Unlimited regarding Hydropower development and *opportunities to improve American energy infrastructure.*

On March 13th the Senate Committee on Energy and Natural Resources held a hearing on energy infrastructure, titled *Hearing to receive testimony on opportunities to improve American energy infrastructure*. The same week, the House Energy and Commerce Subcommittee on Energy held a hearing titled *Modernizing Energy Infrastructure Challenges and Opportunities to Expanding Hydropower Generation* (3/15/2017). Trout Unlimited appreciates the committees' interest in improving the hydropower regulatory framework. We offer the following statement in response to these hearings.

Trout Unlimited and our members have a huge stake in ensuring that hydropower development is done right. TU's mission is to protect, conserve and restore the Nation's trout and salmon fisheries and the watersheds on which they depend. Our 155,000 members live, recreate, hunt and fish along the waterways impacted by hydropower development. TU has a long history of engagement — both in project-specific licensing and in regulatory or policy-level processes — partnering with utilities and project developers to identify and implement collaborative solutions balancing the needs of fish and wildlife with power production goals. From working with Avista Corporation to restore bull trout in northwest Montana, to working with Portland General Electric (PGE) to restore salmon and steelhead on the Deschutes River in Oregon, to working with Pacific Power and Light (PPL) to restore Atlantic salmon on the Penobscot River, Maine, TU has a deep history with hydropower regulation. We have seen it work well, and we have seen it work poorly.

Based on our experience, we offer the following perspective on opportunities to invest infrastructure and improved regulatory processes to support expanding hydropower production while meeting the balanced goals described above. We urge Congress to carefully consider our views, as well as those of the hydropower industry, Tribes, state and federal resource agencies, and communities directly impacted by hydropower generation. We urge Congress to be far more inclusive and deliberate when it develops its legislation than it did in the prior Congress. We urge Congress to develop consensus within stakeholders on the legislation. It is tough work, but just as we have found lasting, durable agreements with stakeholders on individual licenses, we strongly believe that we can as well in Congress.

A mission to conserve, protect, & restore North America's coldwater fisheries and their watersheds.

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Trout Unlimited Recommendations

1. Support state, tribal and federal resource agency mandates

The Federal Power Act provides conditioning authority to the State and federal resource agencies to protect fish, wildlife and lands. These authorities include ensuring timely and effective fish passage and assurances of water quality above and below the project. TU relies on federal resource agencies 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, 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 our nations' existing hydropower projects were developed before the existence of most major natural resource laws. The relicensing process provides our resource managers with the much needed opportunity to ensure that these projects are upgraded to meet modern day laws and standards for conservation performance. Support for these agencies is critical to ensuring a timely and balanced outcome.

The most efficient way to ensure a timely process is to ensure these resource agencies have the tools and resources that they need to effectively engage in the licensing process; the greater involvement by these regional local and regional staff, the better the outcomes.

Any legislative proposal should support state and federal conditioning authorities – including support for the resource evaluation and information needs of permitting agencies - and ensure that these agencies have the necessary resources to effectively engage in support of their resource protection obligation to the American public.

Not only does this include preserving the statutory conditioning authorities that allow agencies to protect fish and wildlife habitat and other public land resources, but also supporting funding to agency programs and staff to ensure the resources are available to fulfill these obligations in an efficient and effective manner.

TU recommends that any legislative approach to expanding hydropower infrastructure include the following principles to support state, tribal and federal resource agencies in the licensing and relicensing process:

Do no harm: Protect critical state, tribal and federal resource agency mandates and authorities

Previous legislative proposals proposed to centralize permitting authority at FERC, undercutting the individual conditioning authorities provided by the Federal Power Act sections 4(e), 18, and 10(j) and to the States and Tribes through the Clean Water Act section 401. Although the Commission has a skilled staff, the agency does not have the statutory mandate to protect the lands and resources that are currently within the jurisdiction of its sister agencies in the Departments of the Interior and Commerce, such as fish and wildlife, endangered species, and public lands. These federal resource agencies have

local and regional field staff with on the ground knowledge of the resources involved in any particular licensing process. Their level of familiarity and connection to the resources helps bring a deeper level of knowledge to the process, with is necessary to optimize a license for all users. ***No proposal should minimize or reduce Mandatory conditioning authorities for state and federal resource agencies***

Ensure complete and early record development

Agency authorizations can face delay where the agency is unable to obtain the necessary information as a part of the FERC study process. These studies are necessary in order for agencies to fulfill their statutory obligations in relationship to hydropower relicensing. The standard length of a study is only two years, although if the licensee presents insufficient information, the studies may go on longer.

Delay could be minimized by improving coordination at the study phase to ensure all agencies – not just FERC – are able to obtain the necessary information to complete review and processing of necessary permits and authorizations without additional delay for data collection. Congress could provide direction to FERC to either grant these study requests or allow other agencies to require them under their own regulatory authority. While these recommendations do not necessarily require a change to the Federal Power Act, a statement by Congress would have the salutary effect of encouraging FERC to adopt them.

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. We 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. Additionally, we recommend that Congress evaluate allowing licensees to pay to the land managing agencies a portion of the fees that they now pay to FERC for the direct cost of implementing their license conditions.

2. Invest in existing infrastructure

TU believes that any effort to increase hydropower supplies should focus first on existing infrastructure, prioritizing power gains through improvement and modernization of existing resources and equipment (efficiency improvements) and adding or expanding production at existing, well-maintained infrastructure – including federal storage facilities and water delivery infrastructure.

Improve operations at existing facilities to increase production while reducing impacts (capacity additions or efficiency upgrades)

A critically important finding of the Department of Energy's 2016 Hydropower Vision Report is that building new dams will cost more in both investment dollars and negative impacts to clean water, fish and wildlife, and rural economies than it is worth. The Report concluded that efforts to expand hydropower production should instead focus on promoting efficiency, retrofitting suitable non-powered dams, and upgrading the century-old technology that is present in far too many currently operating hydroelectric projects. We agree

Adding power at appropriate non-powered dams and conduits (well-maintained and mitigated facilities) –anywhere water is moving, there is opportunity for power generation.

Opportunity exists to expand hydropower development at existing infrastructure – such as federal dams and irrigation delivery systems where water is already in motion for another important use. Conduit development in particular has the potential to be beneficial for rural agricultural communities as in-conduit energy development creates opportunity for benefit to water users and ecosystem values by creating an additional source of revenue for investment in water saving efficiencies or infrastructure improvements, such as fish passage and screening or improved bypass flows. Conduit development can bring in rural, dispersed sources of power to irrigation districts and water users whose power needs are often far from the grid.

To encourage these types of developments, Congress can help by supporting multi-use authorizations at federal facilities. Such action would add power production and fish and wildlife as authorized purposes consistent with existing and primary project purposes. This would enable flexible management and allow for more creative solutions.

For example, in 2013, TU supported Representative Tipton’s Bureau of Reclamation Small Conduit Hydropower and Rural Jobs Act, which became Public Law No: 113–24. The bill was aimed at improving the process for hydropower development at Bureau of Reclamation Facilities and was advanced without sacrificing the environmental review and protections that are essential to balanced outcomes.

Improvements could also be made to the regulatory process for licensing hydropower developments at US Army Corps of Engineers’ (USACOE) projects to minimize delay and process duplication between the FERC and USACOE licensing processes for adding hydropower to non-powered Corps facilities.

3. Encourage Ongoing Investment during life of license

Look for opportunity to promote mid-term investments by utilities to support ongoing study and improvement during the license term. A current complaint with relicensing is that there is too much study and too much expense. Ongoing investment and study would arguably allow a utility to spread investment cost over time while also entering the next relicensing period with more data and understanding about project operations and impacts. One approach, outlined in previous legislative proposals, would allow the Commission to consider certain “project-related investments” made by the licensee over the term of the project license (where those investments did not already result in an extension of the license term by the Commission) as a factor in determining the length of a project license during relicensing. This approach would encourage project owners to make early or ongoing project investments that may be above and beyond what their underlying FERC license requires by clarifying that FERC will take these investments into account when evaluating a future relicensing proposal. This concept is worth further exploration.

4. Support Cooperative Processes and Collaborative Settlements that Consider Larger Picture - Local solutions, local successes

Whether adding capacity to an existing non-powered dam or conduit, or relicensing and updating operations at an existing facility – the best outcomes are achieved in the context of a multi-stakeholder, collaborative approach. TU has partnered with industry and other stakeholders in a number of licensing settlements and related processes.

Trout Unlimited staff and volunteers have worked on hundreds of licensing and relicensing processes around the country. Some of the best results came from those examples where utilities, agencies and stakeholders worked collaboratively to develop a plan to advance power and non-power needs. To name but a few among these processes, TU worked to restore valuable fisheries and relicense dams owned by Avista Corporation in northwest Montana; PGE on the Deschutes River in Oregon, and PPL on the Penobscot River, Maine.

We supported these efforts because they were focused on improving the regulatory process or promoting project development without sacrificing natural resource safeguards. We urge the Committee to apply this same basic principle to any future legislative proposal regarding hydropower licensing.

Additional Considerations

Changing Climate: Changes to timing and magnitude of streamflow will have an impact on hydro operations and in the cost-benefit calculation for new hydro resources. On the supply side, warming temperatures will likely reduce snowpack in the West, which is important for maintaining base flows in rivers and streams during the dry season (e.g., mid-summer-early fall) when there is little precipitation. This will likely cause a reduction in hydropower generation. Conversely, hydropower generation may increase in some areas during the winter because warmer temperatures will likely result in more precipitation falling as rain as opposed to snow increasing streamflow. On the demand side, warmer temperatures are predicted to reduce winter heating demands, while significantly increasing peak demands during summer periods. Consequently, it is likely that hydropower will be a less reliable energy source in the future because its availability during times of high demand will be diminished as the climate warms.

Aging Infrastructure: While we see promise for expanding hydropower at existing facilities, we caution that not all dams are suitable for hydropower operations. As noted in the hearing memo, many of America's dams have exceeded their design life and are in need of modernization. By 2025, 70 percent of the dams in the US will be over 50 years old. According to the American Society of Civil Engineers, 15,500 dams are classified as high hazard.

As the Congress undertakes evaluation of the interconnected topics of Infrastructure investments; expanding hydropower generation and water storage and delivery solutions for the drought-stricken west; we encourage lawmakers to include consideration of dam removals and infrastructure repair as part of the overall picture.

Lawmakers should also carefully weigh the relative energy benefits and natural resource impacts of multiple small dams. Dam impacts on fisheries do not necessarily scale up with size. An old 500 kilowatt

hydro plant with no fishway near the head of tide on a coastal river can have much larger impacts on recreationally and commercially important fish than a modern 50 MW plant that can afford good fish passage or appropriate mitigation. Resist calls to exempt older or small plants from fish passage requirements.

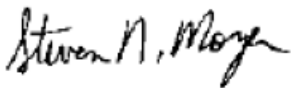
Conclusion

The most balanced and efficient way to bring new hydropower online, is to ensure that the development is well-sited and appropriately mitigated from the start and to support and encourage early and often investment in evaluating and improving operations over time.

We support a balanced and critical review of current processes for regulating, mitigating and integrating hydropower. We hope that such discussions will help to ensure that any legislative proposals are carefully tailored to address specific concerns or opportunities for improvement in a manner that balances power and non-power values. We were very concerned with legislation advanced during the last Congress, such as the hydropower provision of HR 8. Specifically, we urge Congress to support and defend resource agency authorities and mandates - including the Clean Water Act, Endangered Species Act and Federal Power Act.

We appreciate the opportunity to provide these comments to the committee of its consideration and we look forward to working with members of the committee to identify areas for improvement in the process that will not result in loss of protections for fish, wildlife and recreation values.

Sincerely,

A handwritten signature in black ink that reads "Steven N. Moyer". The signature is written in a cursive, flowing style.

Steve Moyer

Summary of Recommendations:

1. Support state, tribal and federal resource agency mandates;
 - Keep in place critical state, tribal and federal resource agency mandates and authorities
 - Ensure study requests are approved to ensure complete and early record development
 - Support strong funding to agency budgets to support early and consistent engagement

2. Invest in Existing infrastructure;
 - Improve operations at existing facilities to increase production while reducing impacts (capacity additions or efficiency upgrades)
 - Adding power at appropriate non-powered dams and conduits (well-maintained and mitigated facilities) –anywhere water is moving, there is opportunity for power generation.

3. Encourage Ongoing Investment during life of license;

4. Support Cooperative Processes and Collaborative Settlements.