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## Opportunities and Challenges on Enhancing Federal Power Generation and Transmission

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Mr. Chairman, members of the Subcommittee, I appreciate the opportunity to appear today to give you the views of Trout Unlimited (TU) regarding "opportunities and challenges on enhancing federal power generation and transmission." We appreciate the Subcommittee's continued interest in the issue.

TU is the nation's largest coldwater fisheries conservation group dedicated to the protection and restoration of our nation's trout and salmon resources, and the watersheds that sustain those resources. TU has over 130,000 members in 450 chapters in 38 states. Our members generally are trout and salmon anglers who give back to the resources they love by voluntarily contributing substantial amounts of their personal time and resources to fisheries habitat protection and restoration efforts. The average TU chapter donates 1,000 hours of volunteer time on an annual basis. In 2004, TU volunteers donated 464,000 hours of time to trout and salmon conservation and education work.

My understanding is that the Subcommittee is primarily interested in power generation at dams operated by the Bureau of Reclamation (Reclamation), and to some degree with dams operated by the Army Corps of Engineers (Corps). We are not experts in the technical aspects of power generation and transmission from federal hydropower dams. However, we are experts in watershed protection and restoration, and we have invested considerable time and effort into successfully mitigating the adverse impacts of federal and privately-owned dams on trout and salmon resources. We believe that healthy wild trout and salmon populations can co-exist with hydropower dams in many situations. Our work has demonstrated how this can occur. Over the past 10 years, TU staff and volunteers have worked with privately-owned hydropower dam operators who are regulated by the Federal Power Act (under the Federal Energy Regulatory Commission (FERC)) to achieve major improvements in dam operations for restoring fish populations while maintaining power generation capacity through the FERC hydrorelicensing process. These include the following:

- **Penobscot Project with PPL:** Signed in 2004, the project is an unprecedented agreement among dam owners, conservationists, tribal, state, and federal agencies to balance hydropower generation and fisheries restoration. It would yield a great array of benefits, most notably improved fish passage to over 500 miles of the Penobscot River and its tributaries in Maine for 12 fish species, including Atlantic salmon, American shad, alewife, blueback herring, and American eel. Implementation of the project will vastly improve river-based recreation and related economic opportunities, and it will resolve a series of longstanding disputes over fish passage and dam removal on the Penobscot River. Importantly, the agreement maintains over 90% of the hydropower generation capacity lost at the dams being removed or bypassed by upgrading power generation on other PPL dams in the area.
- **Lower Clark Fork Project with Avista Power:** Signed in 1999, the project is widely recognized as one of the best, most cooperative relicensing processes ever completed. Owned by Avista, two dams on the Lower Clark Fork River in Montana and Idaho were relicensed in record time due to an outstanding cooperative process involving Avista, TU, state and federal agencies. Avista got its license to continue operating the dams from FERC, and about \$200 million is being invested in conservation over the 45-year life of the license for improvements in the watershed and dam operations for the benefit of endangered bull trout and other aquatic species.

Although no such similar relicensing process exists for the federal dams, TU staff and volunteers have worked with Reclamation, the Corps, and Tennessee Valley Authority (TVA) over the past decades to minimize impacts of hydropower generation on fish populations. These include the following:

- **Reclamation's dams on Montana's Bighorn River, South Fork of the Flathead and the Missouri Rivers:** TU has worked with Reclamation and the state resource agencies to alter flows or modify engineering at the dams to improve trout habitat;
- **Reclamation's Palisades dam on Idaho's South Fork of the Snake River:** TU has worked with Reclamation, the state fisheries agency, and water users to moderate flows to improve fish habitat and reduce the impacts of non-native trout on native trout populations;
- **TVA's Norris Dam on the Clinch River in Tennessee:** TU worked with TVA to increase levels of dissolved oxygen in

the tailwaters to improve trout habitat;

- The Corps' Bull Shoals dam on the White River in Arkansas: TU worked with the Corps to increase levels of dissolved oxygen in the tailwaters to improve trout habitat.

TU volunteers have invested time and money into these projects because they care deeply about the great trout fisheries found there. It is not only TU members who care: the tailwaters below the Reclamation and some of the other Federal dams represent some of the best trout fisheries in the nation. These fisheries generate hundreds of thousands of dollars to local communities and state economies. It is very important for the Subcommittee to consider these values as it considers how to proceed legislatively on the matter.

TU recommends legislative language to study the cost and benefits of increased hydropower generation at Federal dams, including adverse impacts on fish populations and sport and commercial fisheries, prior to any further legislative action to implement the studies.

Because of our stake in the fisheries in and around federal dams, TU has worked closely with the Subcommittee and its staff in the past two Energy bills to craft language that would not be harmful to these valuable fisheries. In the 107th Congress, the Resources Committee and the House approved language to which we and other conservationists strongly objected. The language in H.R. 4 in the 107th Congress included provisions which would both study maximizing power from federal hydropower dams and implement the studies, with no consideration to the likely harmful impacts to the fisheries. Fortunately, the mandatory implementation language was taken out of the bill in conference committee deliberations.

In 2003 as the Resources Committee was developing H.R. 6, again the Committee considered language similar to that included in H.R. 4. TU and other conservationists again objected to the mandatory implementation language. This time, the Committee reconsidered its approach and removed the troublesome language. In the end, what remained in H.R. 6, on this particular provision, was not objectionable. Section 244 of the bill contained a study of ways to increase power generation at Federal dams, which includes study of the impacts to fish, wildlife and recreation. We appreciate very much that our concerns were addressed in 2003, and we urge the Subcommittee and the Committee to support such language again this year as it drafts the new Energy bill. If and when the bill is passed and the study is done, we then urge the Committee to work with Federal agencies and other interests, including water users, power recipients and conservationists, to implement carefully appropriate recommendations of the study.

Valuable sport fisheries below federal dams could be lost or damaged if poorly-conceived power generating increases were implemented.

I wanted to take a moment to make clear why TU and other conservationists objected to the earlier Energy Bill language, and why we would oppose it now if it is put into legislation in the 109th Congress.

The language in H.R. 4 would have required the Department of the Interior to operate federal hydropower projects greater than 50 MW "so as to maximize energy and capacity capabilities...within the constraints imposed ...by other uses required by law." Large Reclamation hydropower plants are not now operated to maximize power generating capacity. Instead, most Reclamation projects are operated to balance water supply, flood control, power generation, recreation, and fish and wildlife purposes – none of the purposes are maximized, all are balanced with other purposes.

Because the fish and wildlife purposes of these projects generally do not impose measurable standards, Interior has great discretion in how it addresses fish and wildlife issues. As a result, fish and wildlife operations are always changeable – they will rarely serve as "constraints... required by law." H.R. 4 required Interior to maximize energy production at hydropower plants, not balance power production with the impact on fish, fishing, boating, water quality, river health, or any other natural resource. Unless there was a law constraining power operations, hydropower would come first.

"Maximizing" the energy and capacity capabilities means running these projects to the greatest extent possible when electricity demands peak power generation – hot summer afternoons or cold winter days. This operation mode is known as "peaking" – it maximizes the value of the power produced, because maximum power is squeezed out when the price of power is the highest. Running hydropower projects to meet peak loads requires releasing the smallest possible flows during off-peak hours and seasons, squeezing fish and aquatic life into trickles, and then flooding water from the dams as electricity demand rises. These peaks and troughs in flow, occurring over a matter of minutes or hours, can be devastating to rivers and their trout populations, and disastrous for the local recreation-based economies.

Most Reclamation projects are run in a modified peaking mode – getting as much high value electricity out as is possible, but within the limits needed for fish and wildlife. The switch to full peaking required by H.R. 4 would have affected the following premier western fisheries, as well as others.

Montana -Yellowtail Dam – Bighorn River In any list of the top western tailwater fisheries, the Bighorn River below Yellowtail dam in south-central Montana is near the top. Trout Unlimited listed this stretch of river in TU's Guide to America's 100 Best Trout Streams. Not only is the fishing terrific, but it also has a huge local economic impact due to the more than 100,000 angler-days of use per year. Hydropower at Yellowtail is operated to generate peak power, and a small re-regulation dam smoothes out flows to some extent. However, the full peaking operations called for in H.R. 4 could have had serious adverse impacts on this premier economic and recreational attraction.

Montana - Canyon Ferry Dam - Missouri River Also listed in TU's Guide to America's 100 Best Trout Streams is the Missouri River below Canyon Ferry, with good cause. The Missouri in this stretch is a big river, full of big trout. Canyon Ferry produces relatively little hydropower in a base load mode. Water released through Canyon Ferry also flows through two privately owned power projects (PPL is the owner) at Holter and Hauser dams, which do little to shape the flows. The result is that the Canyon Ferry release creates the excellent trout fishery for more than 50 miles downstream. Should operations change at Canyon Ferry, the entire fishery --which the State of Montana has estimated generates tens of millions of dollars annually for the economies of local communities-- would be at risk.

Idaho – Palisades Dam – South Fork of the Snake River Below Palisades Dam on the South Fork of the Snake is nearly 60 miles of destination fishing – fishing that people travel from across the country to experience. Listed in TU's Guide to America's 100 Best Trout Streams in part for the rainbow and brown trout fishing, it is also an important stronghold of the native, and declining, Yellowstone cutthroat. The Idaho state fisheries agency and TU have worked with Reclamation to improve flows to enhance trout habitat and improve the valuable recreational fisheries in the river. H.R. 4 language would have undercut these positive efforts by dictating increased peak power generation.

#### Conclusion

Our understanding is that the Subcommittee and the Committee are actively considering provisions to be added into the new Energy bill. We urge the Subcommittee to draft legislative language to study the cost and benefits of increased hydropower generation at Federal dams, including adverse impacts on fish populations and sport and commercial fisheries, prior to any further legislative action to implement the studies. If and when the legislation passes, TU would like to work cooperatively with the Subcommittee to ensure that the Departments do a good job in conducting the study, and would welcome the chance to cooperate on any implementation activities that would occur as a result of the study.

Thank you very much for having the opportunity to testify today.