



**For the Energy and Technology Committee  
Testimony of Alicea Charamut, Executive Director  
March 7, 2023**

*Rivers Alliance was formed to fight for sound water policies at the state and federal levels, to provide education on water resources, and to advocate for any person or group striving to protect water. If you want clean, free-flowing and healthy rivers, and high-quality drinking water, Rivers Alliance is here to help.*

Thank you for the opportunity to provide testimony on the following raised bill before you today.

**HB 6850 AAC HYDROPOWER – General Comments**

This bill is not clear as what aspects of hydropower the Public Utilities Regulatory Authority could and should provide regarding its use. Is it cost to the consumer? Would costs be compared to other renewable energy sources? Would the external cost to the environment and local economies be taken into consideration?

Hydropower provides clean, carbon-free, energy, but it also can have substantial impacts on river health by blocking fish passage, dewatering areas where fish and other critters raise their young, and degrading habitat along riverbanks by allowing water to fluctuate up and down. The environmental impacts of hydropower should be given equal consideration to other factors in any investigation into how hydropower can be better utilized in Connecticut.

**Clean and green?**

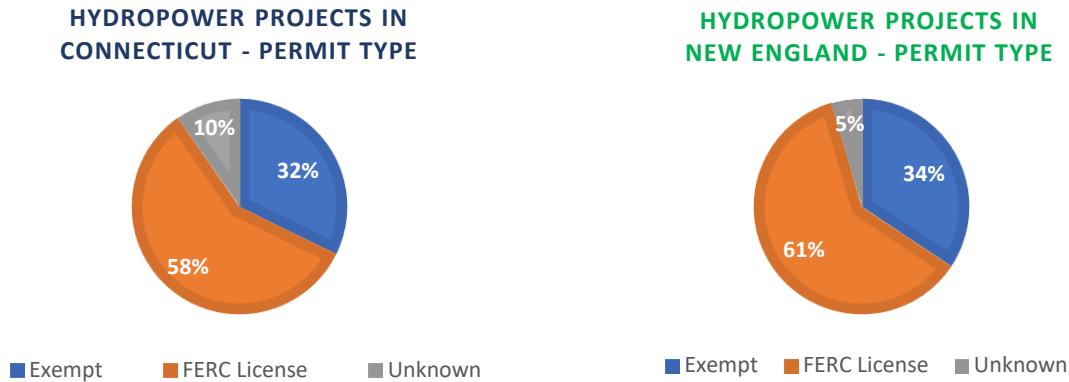
Hydropower can be devastating to river ecosystems. **The assertion that hydropower produces no pollution whatsoever is false.** Hydropower dams cause pollution by altering the temperature and chemical makeup of water. There are some facilities that have more impact than others and mitigation measures to minimize the impact on downstream recreation and ecosystems are far from evenly regulated.

**Hydropower regulation and environmental mitigation – how much can we rely on the current framework?**

Not all hydropower has a FERC license. Small hydropower projects, which are 10 megawatts or less, that will be built at an existing dam are eligible for an exemption from FERC licensing. Projects

granted an exemption are exempt from the requirements of Part I of the Federal Power Act. Exemptions have no expiration date.

Out of all the hydropower projects in Connecticut, 58% are licensed by FERC, 32% are exempt from licensing, and 10% do not fall under FERC jurisdiction. Looking at hydropower projects in New England which is a much larger dataset, 61% are licensed by FERC, 34% are exempt from licensing, and 5% do not fall under FERC jurisdiction.<sup>1</sup>



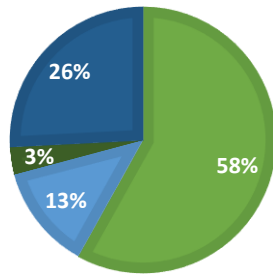
While the majority of hydropower projects in Connecticut and New England fall under FERC jurisdiction, a good percentage are exempt from FERC licensing. What does this mean for river health? Since an exemption does not expire, there is little opportunity or teeth for stakeholders to engage with FERC and a dam owner in order to negotiate a change in operations to address documented harm to the environment and recreation. Keven Zak, founder of the Naugatuck River Revival Group, spent decades documenting serious environmental issues below Kinneytown Dam, which has an active exemption from FERC. It took a lawsuit brought by Save the Sound and the Naugatuck Valley Council of Governments to even get the dam operator’s attention.

FERC jurisdiction does not automatically mean that environmental mitigation measures are in place to minimize the impact on our rivers. Environmental flow releases, effective fish passage, and addressing temperature alteration and the decrease in dissolved oxygen concentrations are all necessary to minimize the impact that hydroelectric dams have on our rivers.

Run of river most closely mimics natural, environmental flows and minimizes downstream flow fluctuations that cause erosion and decrease aquatic biodiversity. It is a base-line for minimizing environmental impacts - yet only 58% of hydropower projects in Connecticut and 43% of projects in New England are run of river. An alarmingly large percentage of projects have no information on mode of operation. The fact that this information is not publically available indicates a lack of transparency or a disinterest in collecting critical data on hydropower or both.

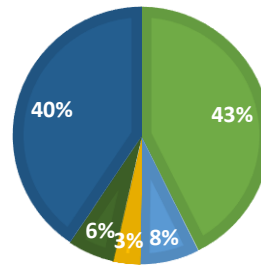
<sup>1</sup> M.M. Johnson, S.-C. Kao, N.M. Samu, and R. Uria-Martinez, Existing Hydropower Assets, 2021. HydroSource. Oak Ridge National Laboratory, Oak Ridge, TN.

**OPERATIONAL MODE - CONNECTICUT**



■ Run of River ■ Peaking ■ RoR/Peaking  
■ Other ■ No Mode Info

**OPERATIONAL MODE - NEW ENGLAND**



■ Run of River ■ Peaking ■ RoR/Peaking  
■ Other ■ No Mode Info

Effective environmental mitigation measures are not automatically incorporated in the FERC licensing and relicensing process. Organizations like the Connecticut River Conservancy, Save the Sound, The Nature Conservancy, and Trout Unlimited have put a significant amount of resources into intervening in the FERC process. Engaging in the process is not trivial. Without legal and expert representation, it is almost impossible for the average person to take part in behalf of their rivers. Even federal and state water quality certificates don't guarantee effective environmental protections for downstream flow and aquatic habitat.

Thank you for the opportunity to weigh in on this issue and Rivers Alliance would be happy to work with the committee to provide the river health perspective on hydropower.