

Testimony of The Low Impact Hydropower Institute on LD 1868: An Act to Advance a Clean Energy Economy by Updating Renewable and Clean Resource Procurement Laws.

The Low Impact Hydropower Institute (LIHI) appreciates the opportunity to provide written testimony on LD 1868: An Act to Advance a Clean Energy Economy by Updating Renewable and Clean Resource Procurement Laws (LD 1868). LIHI shares this testimony specifically as it refers to the role of hydropower as a qualified, renewable, or clean energy source.

Maine's Renewable Portfolio Standard (RPS) has been a key mechanism for driving the state's progress to achieve its climate goals by requiring electric providers to procure an increasing portion of their power from renewable and other clean energy resources. At present, separate portfolio standards are required for energy sources classified as "Class I", "Class IA", or "Class II".

LD 1868 Section 6 creates a new "Class III" for "clean resource" which is defined as a facility that is a Class I or IA resource, or a source of generation that "(1) Generates power that can physically be delivered to the control region in which the New England Power Pool...has authority over transmission...and (2) Has been certified by the Governor's Energy Office in accordance with an emissions-based definition adopted by rule or order by the Department of Environmental Protection." The new Class III effectively allows for any hydropower or nuclear facility to qualify. This change is deeply concerning and antithetical with shoring up public and environmental safety and advancing Maine's climate goals. Furthermore, the proposed loosening of standards for eligible generation in the RPS is unlikely to change affordability outcomes. Rather, the procurement of 100% renewables as a whole will reduce prices, since avoiding fossil fuels will drive price reductions. As a general matter, natural gas price spikes have driven retail power price increases.¹ It is unnecessary to weaken environmental standards to achieve price reductions.²

This testimony outlines information regarding concerns around loosening hydropower's RPS eligibility criteria as defined in LD 1868. This testimony provides background on LIHI, outlines why LD 1868's proposed changes are detrimental to public and environmental safety, and concludes with a recommendation for strengthening existing safeguards for hydropower projects to become eligible to participate in Maine's RPS program.

¹ See, Pierpont, 2024. Clean Energy Isn't Driving Power Price Spikes. At p. 11. Available at: <https://energyinnovation.org/wp-content/uploads/Clean-Energy-Isn't-Driving-Power-Price-Spikes.pdf>

² For additional information, see testimony submitted by Steve Clemmer from the Union of Concerned Scientists' for information.

Background on the Low Impact Hydropower Institute

LIHI is a national 501(c)(3) organization that was established in 1999 with a mission to recognize and support hydropower that prioritizes environmental, recreational, historical, and cultural resource protection.³ Since its inception, LIHI has served as a unique bridge between the hydropower industry and the environmental community to support projects that avoid or significantly reduce their socio-environmental impacts and that invest in river stewardship beyond regulatory compliance. In the United States, LIHI offers the *only* science-based Low Impact Certification program⁴ for hydropower projects, regardless of their size or regulatory status.

Recognizing the unique challenges and impacts of hydropower operations, several states use LIHI Certification to verify hydropower facilities' responsible operational practices and to assess their eligibility for state RPS programs. In the New England region, for instance, the Massachusetts Department of Energy Resources requires hydropower facilities to obtain the Low Impact Certification by LIHI to reliably demonstrate meeting the Green Communities Act of 2008's environmental requirements on an ongoing basis as a pre-requisite to participate in the state's RPS program.⁵ Likewise, LIHI Certified® facilities that meet additional size caps and vintage requirements can qualify as a Tier II resource as part of the Vermont RPS program.⁶

Over the last two decades, LIHI has independently reviewed and certified over 300 hydropower facilities in 24 states and 101 rivers based on eight Low Impact Hydropower criteria. These criteria cover flow regimes, water quality, upstream fish passage, downstream fish passage, shorelines and watershed, threatened and endangered species, recreational, public and traditional cultural access, and cultural and historic resources.⁷ In the New England and New York region, LIHI has certified 142 hydropower facilities representing over 6,000 Gigawatt-hours of average annual generation. In Maine alone, LIHI has issued 28 certificates comprising 42 facilities that generate 1,360 GWh annually. LIHI Certification has enabled these hydropower projects to remain economically viable while ensuring protection and continual reinvestment in the region's fragile ecosystem.

LIHI's experience in certifying Low Impact Hydropower facilities has highlighted a critical need to balance climate mitigation and conservation outcomes. Hydropower is a key renewable energy resource that has a pivotal role to play in the state's clean energy future. Yet, hydropower operations can have serious impacts on river systems and the people, fish, and wildlife that depend on them. Without rigorous guardrails, hydropower's strategic role in climate change mitigation risks exacerbating these impacts and undermining the state's conservation goals.

³ Low Impact Hydropower Institute. About us. Available at: <https://lowimpacthydro.org/about-us-2/>

⁴ Low Impact Hydropower Institute. Criteria & Goals. Available at: <https://lowimpacthydro.org/certification-program/>

⁵ Massachusetts Renewable Portfolio Standard 225 CMR 14.05(1)(a)(6) [Class I] and 225 CMR 14.05(1)(a)(6) [Class II].

⁶ Vermont Renewable Energy Standard Rule §4.406(b)(1)(B)(iv).

⁷ Low Impact Hydropower Institute. Criteria & Goals. Available at: <https://lowimpacthydro.org/certification-program/>

LD 1868 Proposed Changes Undermine Public and Environmental Safety

LD 1868 will allow all hydropower facilities to qualify as a “Class III clean energy source” notwithstanding their safety, community, and environmental impacts. In other words, the proposed definition for hydropower eligibility will create the unintended outcome of giving *more* incentives and ratepayer funds for projects that do *less* for communities and the environment.

Under the current 35-A MRSA §3210, sub-§2 of the General Statutes of Maine, a hydropower⁸ facility can qualify for the RPS if it is licensed by the Federal Energy Regulatory Commission (FERC) (or is a qualified small power producer as defined by FERC), under 100 MW, and “meets all state and federal fish passage requirements applicable to the generator”. Further, hydropower that is over 25 MW must not be located in the Distinct Population Segment (DPS) for Atlantic Salmon.

These current requirements serve as a starting point for safeguarding environmental and community interests, despite their imperfections. For example, a hydropower project’s size or FERC license status are not good predictors of the project’s socio-environmental impact or lack thereof. In LIHI’s 25-year experience in certifying hydropower projects, we have observed no correlation between project size and impact as demonstrated based on the number of mitigation actions required or the ability of the project to be LIHI Certified®.⁹ Likewise, a project’s FERC licensing status is not indicative of its impact either and notably, almost a third of hydropower projects in the New England region that would qualify for the existing RPS are exempt from FERC’s review.¹⁰ (Appendix A provides an overview of the current regulatory status and context for hydropower projects in Maine and the New England and New York regions). *Even if* a project requires a FERC license, impacts may persist since license conditions may not protect community and environmental interests; and, *even if* there are conditions, there may be gaps in their enforcement and monitoring. Given the recent cuts to federal resource agencies, there may not be sufficient resources to even review projects. One way the imperfections in the current RPS definition can be addressed is by improving the oversight, verification, and implementation of the existing socio-environmental safeguards.

Rather than *address* the imperfections, the current RPS LD 1868 removes *all* community and environmental safeguards for hydropower. There are no constraints for hydropower that would qualify into LD 1868’s new Class III. As climate change impacts become more devastating and unpredictable, it is critical to strengthen implementation of the current RPS requirements that protect communities. Instead, LD 1868 does the opposite: it will allow even projects with safety concerns and those that harm communities and local river systems to

⁸ See, <https://www.mainelegislature.org/legis/statutes/35-a/title35-Asec3210.html>

⁹ Ames, S.B.J, and M. Fischer. 2020. Low Impact Hydropower Institute 20-Year Review Report. Low Impact Hydropower Institute, Arlington, MA, at p. 5. Available at: https://lowimpacthydro.org/wp-content/uploads/2021/02/LIHI-20-Year-Report_2020_12_30.pdf

¹⁰ M.M. Johnson, S.-C. Kao, and R. Uria-Martinez, Existing Hydropower Assets, 2023. HydroSource. Oak Ridge National Laboratory, Oak Ridge, TN.

be rewarded through the RPS program. And since hydropower from neighboring states can participate in the RPS program, those unable to meet stringent socio-environmental safeguards in those states can sell into Maine with the ultimate outcome of having the public pay for projects that may neither address affordability concerns nor promote public safety and climate resilience.¹¹

Recommendation for Strengthening Existing Safeguards for Hydropower’s Eligibility as a Renewable Energy Source in Maine

Maine’s RPS program provides critical incentives for supporting renewable energy projects; any project that qualifies for the RPS should ultimately deliver benefits to the public. Simply put, all **projects should only be paid more for doing more for public safety and environmental stewardship**. Furthermore, environmental stewardship is needed now more than ever to build climate resilience. LD 1868 Section 8.D (4) stipulates that qualifying facilities must “where possible, avoid, minimize or mitigate environmental impacts to low-income populations”. It is possible to mitigate for hydropower’s impacts. Nearly 50% of LIHI Certified facilities in New England impact communities where energy prices are a significant burden.¹² Thus, any hydropower project that is considered an eligible renewable resource must operate in a socio-environmentally responsible manner which should include protecting public health and safety.

A key way to strengthen the existing safeguards for Maine’s eligible hydropower resources and ensure that they deliver public benefits is to require these projects to demonstrate socio-environmentally responsible operations on an ongoing basis, such as through obtaining a Low Impact Certification by LIHI. Given that hydropower projects across the New England and New York regions can participate in Maine’s RPS, in addition to in-state resources, it is critical to adopt a common baseline mechanism for projects to demonstrate socio-environmentally responsible operations despite state-level regulatory diversity.¹³ In this context, the LIHI Certification Program that relies on eight science-based criteria—that align with Maine’s existing requirements for Class I resources — can serve as one such common

¹¹ For instance, Massachusetts has stringent requirements for hydropower to qualify for the state’s RPS program to ensure that only socio-environmentally responsible hydropower benefits from participation in the program. In recent years, the MA Class I Renewable Energy Credit (REC) prices and ME Class I REC prices have been approaching similar levels since 2022 and, if all requirements for hydropower eligibility are removed for Class III, it could be possible for projects that do not meet socio-environmental safeguards in MA to sell into ME and still be paid similarly. For trends in New England REC prices, see <https://www.seadvantage.com/blog-post/dont-be-rec-less/>

¹² <https://lowimpacthydro.org/wp-content/uploads/2023/05/Hydro-and-Environmental-Justice-A-LIHI-Case-Study-Updated-2023-05-09.pdf>

¹³ Take, for example, the diversity in the availability of site-specific Water Quality Certificates. States are authorized to provide Section 401 Water Quality Certificates under the Federal Clean Water Act (33 U.S.C. 1314). In LIHI’s experience, the presence of a Water Quality Certificate is not guaranteed for individual hydropower projects and moreover, even within a single state, requirements may exist for one project but not another. Across New England, 64% of FERC exempt hydropower projects that LIHI has certified do not have a Water Quality Certificate. In New York, none of the FERC exempt LIHI Certified® facilities have a Water Quality Certificate. In the absence of project-specific, state-level water quality requirements, LIHI has used a wide variety of site-specific scientific studies and databases, such as state lists of impaired water bodies, to determine whether a project meets water quality goals—which, in turn, can help assess whether a project meets the definition of Maine’s RPS’s renewable energy source.

baseline mechanism for projects to demonstrate low-impact, socio-environmentally responsible operations. In Maine, 61% of Class I/IA hydro and 40% of Class II hydro is already certified by LIHI. Requiring LIHI Certification would not be a burdensome requirement but would provide a crucial and ongoing check on the impacts of hydropower facilities receiving additional income through the RPS.

Currently, for existing hydropower projects that do not need a FERC license as well as for those that have years to go before their next relicensing, LIHI Certification is the *only* available science-based process in the nation that can help drive socio-environmentally responsible operations. Even in cases where there may be some regulatory oversight, LIHI's Low Impact Certification provides value in its sole focus on minimizing or avoiding socio-environmental impacts of a hydropower project regardless of the project's power characteristics or benefits. When compared to FERC's license requirements, LIHI facilities typically demonstrate voluntary actions, additional accountability, and additional scrutiny.¹⁴

The Task Force to Study Hydropower in Connecticut, developed a 2024 report on Connecticut's Hydropower Assets, which included participants from the hydropower industry, identified LIHI's Certification program and science-based criteria to independently evaluate hydropower projects as a best practice for hydropower.¹⁵ Given agency resource constraints, LIHI's independent review can help provide greater oversight in verifying hydropower eligibility for Maine's RPS program. Moreover, since the public ultimately pays for the RPS resources, it is crucial to ensure that their input and perspectives are incorporated into ongoing operations and that a project's details are available publicly; yet, given the gaps in the current regulatory framework, and reductions in agencies' workforces, opportunities for public input may be limited for the large number of facilities in New England that either have a FERC license exemption or have a long way to go before their relicensing. In this regard, LIHI's program serves as a tool to foster transparency and public input for hydropower facilities. LIHI publishes comprehensive information on all Low Impact Certified® projects on its public website with no paywall.¹⁶ Additionally, the Certification Program's initial certification process along with annual compliance reviews, mid-term reviews, and periodic recertification reviews allow for ongoing monitoring and transparency of the certified hydropower projects and create opportunities for public input on the operations of these projects on an ongoing basis. This public involvement ensures that project-related socio-environmental issues are identified and addressed swiftly.

Conclusion

Hydropower is a key resource to support Maine's renewable energy transition. Yet, this resource may have community, environmental, and safety impacts. LD 1868's proposed approach that in essence removes all safeguards for hydropower's participation in the RPS may

¹⁴ See Ames, S.B.J., and M. Fischer. 2020. Low Impact Hydropower Institute 20-Year Review Report. Low Impact Hydropower Institute, Arlington, MA, at p. vii. Available at: https://lowimpacthydro.org/wp-content/uploads/2021/02/LIHI-20-Year-Report_2020_12_30.pdf

¹⁵ Connecticut's Hydropower Assets, 2024 Report from the Task Force to Study Hydropower, April 1 2024. At p. 26.

¹⁶ See, <https://lowimpacthydro.org/certified-facilities/>

have detrimental outcomes for public safety and local river systems without addressing affordability concerns. Rather than providing a loophole in necessary safeguards, it is critical to address the existing gaps by requiring hydropower projects to demonstrate socio-environmentally responsible operations on an ongoing basis through obtaining an independent science-based certification, such as from LIHI's Low Impact Certification program. Such a certification would provide the oversight and verification needed to ensure that projects that receive incentives from their participation in the RPS program deliver public benefits and protect public and environmental safety.

Thank you to the Committee on Energy and Technology for raising this bill. LIHI is eager to assist in developing policy alternatives to support hydropower projects that put people and the environment first.

Sincerely,

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Appendix A

Regulatory Status and Context for Hydropower Projects in Maine and the New England and New York Region

In the United States, the Federal Energy Regulatory Commission (FERC) provides regulatory oversight over non-federal hydropower projects. FERC reviews and issues licenses for non-federal hydropower projects for terms that last 30 to 50 years; projects undergo relicensing once their initial term ends.¹⁷ It is worth noting that not all non-federal hydropower projects require a FERC license. A conduit hydropower project with a capacity of 40 Megawatts (MW) or less and conventional hydropower projects with a capacity of 10 MW or less are exempt from FERC's licensing requirements.¹⁸ FERC exemptions are issued in perpetuity;¹⁹ in other words, exempt projects have minimal to no opportunity for periodic review to assess and address their social and ecological impacts. Currently, almost a third of all non-federal hydropower projects in the Maine and New England and New York region are FERC exempt (see Figure 1 below).

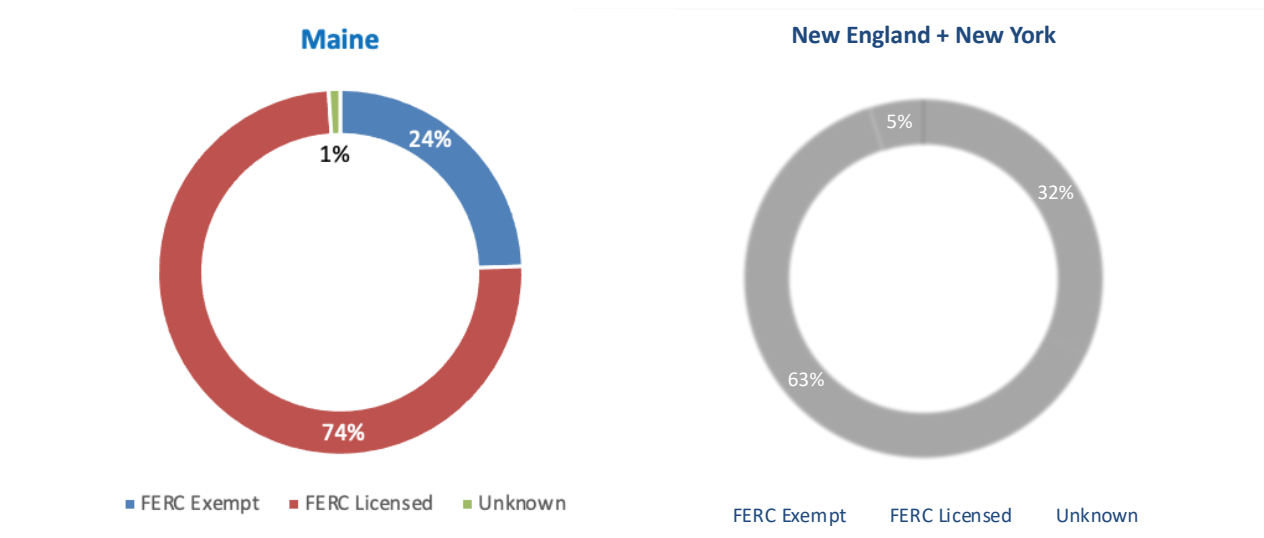


Figure 1 Regulatory Status of Non-Federal Hydropower Projects in Maine and the New England and New York Region.

Source: M.M. Johnson, S.-C. Kao, and R. Uria-Martinez, *Existing Hydropower Assets*, 2023. HydroSource. Oak Ridge National Laboratory, Oak Ridge, TN.

As part of its license review, FERC solicits input from other relevant federal, state, and local government agencies, federally recognized Tribes, and the public to identify project

¹⁷ Federal Energy Regulatory Commission, *Hydropower Licensing—Getting Involved, A Guide for the Public*, at p. 4. Available at: <https://www.ferc.gov/sites/default/files/2020-04/hydro-guide.pdf>

¹⁸ Federal Energy Regulatory Commission. *Exemptions from Licensing*. Available at: <https://www.ferc.gov/licensing/exemptions-licensing>

¹⁹ Federal Energy Regulatory Commission. *Exemptions from Licensing*. Available at: <https://www.ferc.gov/licensing/exemptions-licensing>

impacts.²⁰ FERC may include conditions proffered by relevant state and federal agencies and federally recognized Tribes in its mandatory terms and conditions of the license.²¹ However, recommended conditions by other agencies are not always adopted by FERC in the final license and, as such, the licensing process alone is inadequate to guarantee environmental protection as highlighted by the Connecticut Task Force report on Connecticut’s Hydropower Assets.²² This is because under Section 4(e) of the Federal Power Act as amended by the Electric Consumers Protection Act of 1986, FERC is mandated to give “equal consideration” to power and non-power aspects of a project.²³ By design, the FERC licensing process is insufficient to guarantee that projects will be low impact since the environmental considerations are weighed against the power benefits and economics of a project; this approach also applies to the imposition of license conditions. Over the life of the LIHI program, 20% of applications cannot meet LIHI’s science-based criteria and are thus not certified, *regardless of FERC requirements*. Furthermore, *even if* FERC outlines conditions for hydropower projects in licenses or exemptions, such conditions are only as strong as their enforcement and ongoing monitoring and this challenge is amplified with resource agency staff constraints.

²⁰ Federal Energy Regulatory Commission, Hydropower Licensing—Getting Involved, A Guide for the Public, at p. 6. Available at: <https://www.ferc.gov/sites/default/files/2020-04/hydro-guide.pdf>

²¹ Federal Energy Regulatory Commission, Hydropower Licensing—Getting Involved, A Guide for the Public, at Glossary of Terms. Available at: <https://www.ferc.gov/sites/default/files/2020-04/hydro-guide.pdf>

²² Connecticut’s Hydropower Assets, 2024 Report from the Task Force to Study Hydropower, April 1 2024. At pp. 24-25.

²³ The Federal Power Act, Available at: https://www.ferc.gov/sites/default/files/2021-04/federal_power_act.pdf