STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of Consumers Energy Company for approval of the sale of its River Hydroelectric Generating Fleet, related Power Purchase Agreement, and other relief.

MPSC No. U-21985

/

REVISED DIRECT TESTIMONY

OF

JESSICA L. MISTAK

ON BEHALF OF

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

~~February~~ March 2026

Q. Please state your name and business address.

A. My name is Jessica L. Mistak, and my business address is 6833 US-2, 41 & M-35, Gladstone, Michigan, 49837.

Q. What is your educational background?

A. I have a Bachelor of Science degree in Natural Resources from the Ohio State University and a Master of Science degree in Fisheries and Wildlife from Michigan State University. I have been a Certified Fisheries Professional through the American Fisheries Society since 2008.

Q. By whom are you employed?

A. I am employed by the Michigan Department of Natural Resources (DNR) Fisheries Division.

Q. How long have you been employed by Michigan Department of Natural Resources?

A. I have been employed by DNR Fisheries Division since September 2000.

Q. What is your current position with Michigan Department of Natural Resources?

A. I am Fisheries Division's Habitat, Aquatic Species, and Regulatory Affairs Section Manager.

Q. Have you previously provided testimony before the Michigan Public Service Commission ("MPSC" or the "Commission")?

A. No.

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of my testimony is to provide information to the Michigan Public Service Commission on certain existing risks associated with the proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC.

In my role as a DNR employee, I will provide testimony on behalf of Michigan's natural resources and the public's interest in them. I am uniquely situated to provide the Commission with helpful insight and data as to whether this unusual transaction proposed by Consumers Energy will adversely impact the provision of "safe, reliable, and adequate energy service in this state," and is consistent "with public policy and interest." MCL 460.6q(7)(b) & (e). I will provide testimony on how hydropower projects affect natural resources and potential impacts to Michigan's natural resources if the hydropower projects are not operated and maintained properly.

Q. Are you sponsoring any exhibits with your direct testimony?

A. Yes, I am sponsoring the following exhibits:

Exhibit ~~A~~DNR-1 (JLM-1)	Consumers Energy Discovery Response to DNR, U21985-DNR1-CE-0221, 0237
Exhibit ~~A~~DNR-2 (JLM-2)	March 27, 2008 Offer of Settlement
Exhibit ~~A~~DNR-3 (JLM-3)	December 15, 2025, EGLE Comments on Au Train
Exhibit ~~A~~DNR-4 (JLM-4)	August 14, 2023, DNR and EGLE Comments on Au Train
Exhibit ~~A~~DNR-5 (JLM-5)	December 29, 2025, FERC Order Terminating Au Train License
Exhibit ~~A~~DNR-6 (JLM-6)	FERC Financial Assurance Measures for Hydroelectric Projects
Exhibit ~~A~~DNR-7 (JLM-7)	March 26, 2021, DNR Comments on Financial Assurances
Exhibit ~~A~~DNR-8 (JLM-8)	Responses of Confluence Hydro, LLC to DNR's First Set of Discovery Requests re U-21985

Exhibit ~~A~~DNR-9 (JLM-9)	Responses of Confluence Hydro, LLC to MPSC's First Set of Discovery Requests re U-21985
Exhibit ~~A~~DNR-10 (JLM-10)	DNR Fisheries Division Dams and Barriers Policy
Exhibit ~~A~~DNR-11 (JLM-11)	DNR Fisheries Division March 2001 Au Sable River Assessment
Exhibit ~~A~~DNR-12 (JLM-12)	December 29, 2022, DNR Comments on Consumers Energy Hydro Power Strategy
Exhibit ~~A~~DNR-13 (JLM-13)	September 13, 2023, DNR Comments to Consumers Energy Hydro Review
Exhibit ~~A~~DNR-14 (JLM-14)	HSE Hydro Ownership, Confluence Discovery Response 21985-ST-CH-1
Exhibit ~~A~~DNR-15 (JLM-15)	August 23, 2023, EGLE Comments to FERC on Consumers Energy Water Quality
Exhibit ~~A~~DNR-16 (JLM-16)	October 22, 2024, EGLE Comments to FERC on Consumers Energy Water Quality
Exhibit ~~A~~DNR-17 (JLM-17)	February 11, 2023, DNR Comments to FERC on Consumers Energy Water Quality
Exhibit ~~A~~DNR-18 (JLM-18)	September 1, 2023, DNR Comments to FERC on Consumers Energy Water Quality
Exhibit ~~A~~DNR-19 (JLM-19)	Responses of Confluence Hydro, LLC to MSPC's Sixth Set of Discovery Requests re U-21985
Exhibit ~~A~~DNR-20 (JLM-20)	June 4, 2020, Consumers Energy FERC Water Quality Filing
Exhibit ~~A~~DNR-21 (JLM-21)	———DNR 1972 Status Report on Dams

Exhibit ~~A~~DNR-22 (JLM-22)	November 19, 2007, DNR Request for Rehearing on Consumers Energy Retirement Study Report
Exhibit ~~A~~DNR-23 (JLM-23)	Consumers Energy Response to MPSC, U21985-ST-CE-0142
Exhibit ~~A~~DNR-23A (JLM-23A)	Consumers Energy Response to MPSC, U21985-ST-CE-0142_ ATT_0001
Exhibit ~~A~~DNR-24 (JLM-24)	Consumers Energy Response to MHRC, U21985-MHRC-CE-0337
Exhibit ~~A~~DNR-25 (JLM-25)	Consumers Energy Response to DNR, U21985-DNR-CE-0234
Exhibit ~~A~~DNR-26 (JLM-26)	American Rivers and Hydropower Reform Coalition, October 2023, Practitioner's Guide to Hydropower Dam Removal
Exhibit ~~A~~DNR-27 (JLM-27)	November 23,1992 Offer of Settlement between Consumers Energy and USDA Forest Service, US DOI Fish and Wildlife Service, Michigan DNR, US DOI National Park Service, and Michigan State Historic Preservation Officer before FERC
Exhibit ~~A~~DNR-28 (JLM-28)	Boyne Falls Dam Removal and River Restoration: Alternative Basis of Design Report, GEI Consultants, December 15, 2025

Q. What are your responsibilities as Habitat, Aquatic Species, and Regulatory Affairs Section Manager?

A. I help guide Fisheries Division in the pursuit of its mission and goals by participating as a member of Fisheries Division Management Team. I also coordinate Fisheries Division activities, including work and budget planning

processes, within the Habitat, Aquatic Species, and Regulatory Affairs Section. I assist my staff in coordination of statewide activities within Fisheries Division and DNR, and with other state agencies, federal agencies, and tribes. Tasks include:

- Oversee the State's participation in Federal Energy Regulatory Commission (FERC) hydropower licensing efforts.
- Oversee the State's Natural Rivers Program.
- Oversee and guide the Division to accomplish highest priority aquatic habitat protection and enhancement tasks.
- Participate in settlement negotiations involving significant resource implications.
- Oversee development and participate in Division and inter-agency environmental and natural resource policies and procedures.
- Oversee and direct the recreational fishing regulation program including working with the Natural Resources Commission.
- Oversee and direct implementation of state-licensed commercial fishing program.
- Oversee and direct the Division's aquatic invasive species program.
- Serve as legislative liaison for the Division on matters pertaining to the Section.

Q. What is DNR's role in FERC hydropower proceedings?

A. DNR is a principal Department of the State of Michigan, tasked in large part with implementing the Constitutional declaration that the "conservation and

development of the natural resources of the state are hereby declared to be of paramount public concern in the interest of the health, safety and general welfare of the people." 1963 Michigan Constitution, Article 4, § 52. The DNR is one of Michigan's designated resource agencies that routinely intervenes in FERC hydroelectric dam proceedings in Michigan.

DNR is charged with the management of public trust natural resources of the state, meaning that we hold natural resources in trust for the public and have an affirmative duty to manage those resources for the benefit of the public. Our responsibilities are accomplished through conservation, protection, and management actions to allow use and enjoyment of the state's natural and cultural resources for current and future generations. The Department's public trust responsibilities for hydropower projects licensing/relicensing and compliance processes are to seek to:

1) prevent significant deterioration of our natural resources, in particular aquatic resources, resulting either from the operation or failure of hydropower facilities;

2) identify, abate, minimize, and seek mitigation for the adverse natural resource impacts of hydropower facilities;

3) identify responsibilities of the licensee for long term maintenance or removal of structures when it would no longer be cost-effective to continue operating in accordance with water quality and dam safety requirements; and

4) obtain guarantees from project owners for the safe operation and maintenance of structures for the life of the project.

As such, DNR tracks and makes recommendations to avoid, minimize, and mitigate natural resource impacts at hydropower projects; monitors reported dam operations to ensure operators comply with federal, environmental, and recreational requirements; and, in consultation with the dam safety unit at the Michigan Department of Environment, Great Lakes, and Energy (EGLE), monitors reported dam operations and FERC filings to ensure owners comply with federal dam safety requirements.

Q. What is DNR's role in Consumers Energy's FERC hydropower proceedings?

A. DNR is a party to Consumers Energy's FERC hydropower proceedings for each of their 13 dam projects and serves as a member of the Manistee-Muskegon-Au Sable Coordination (MMAC) Team for the 11 Muskegon, Manistee, and Au Sable river projects. The MMAC Team, which includes representatives from Consumers Energy, state and federal resource agencies, and an environmental coalition, coordinates the FERC license implementation process.

The DNR is a party to the following Offers of Settlement with Consumers Energy:

- November 23,1992 - overarching agreement for 11 Muskegon, Manistee, and Au Sable river projects;[1]
- July 25, 2005 - agreement to revise Habitat Improvement Account payments;[2]
- March 7, 2008 - agreement to address retirement studies for 11 Muskegon, Manistee, and Au Sable river projects. While this agreement is still pending FERC's approval, the agreement is an extension of the retirement studies Consumer's Energy created as required by the 1992 agreement and license provisions FERC adopted pursuant to that 1992 agreement. This agreement is provided as Exhibit ~~A~~DNR-2 (JLM-2).

Q. How has the DNR worked with Consumers Energy to address eventual hydropower project decommissioning?

A. Since at least 1992, DNR has negotiated with Consumers Energy alongside federal agencies and non-governmental organizations to agree on timelines by which Consumers Energy would prepare retirement studies for the 11 Muskegon, Manistee, and Au Sable river projects. Both the November 23,1992 Offer of Settlement and subsequent July 15, 1994 FERC project licenses include provisions for Consumers Energy to examine decommissioning options and plan for funding to accomplish project retirement. The March 27, 2008 Offer of Settlement between Consumers

[1] Listed in Redacted Purchase and Sale Agreement Between Consumers Energy and Confluence Hydro, LLC, Schedule 5.10(a), Material Contracts, ¶23, RTB-1 at 187. I have also provided this as Exhibit ~~A~~DNR-27 (JLM-27).
[2] Listed in Redacted Purchase and Sale Agreement Between Consumers Energy and Confluence Hydro, LLC, Schedule 5.10(a), Material Contracts, ¶22, RTB-1 at 187.

Energy, United States Department of Agriculture Forest Service, United States Department of Interior Fish and Wildlife Service, Michigan DNR, and the Michigan Hydro Relicensing Coalition, addressed retirement study reports and funding of retirement costs for these 11 projects.

When asked by the DNR why the 2008 Offer of Settlement was not included as a Material Contract in the application to the Commission, Consumers Energy responded: "The referenced settlement agreement was issued pursuant to the Company's FERC hydro licenses, which are being transferred to Confluence Hydro outside of the list of Material Contracts."[3] It is my understanding that Consumers Energy's application to the Commission includes other Material Contracts issued pursuant to their FERC hydropower project licenses and Material Contracts are defined in their application to include "(f) each Contract with any Governmental Authority . . . ."[4] I believe the March 27, 2008 Offer of Settlement with several governmental agencies should be disclosed and include it as Exhibit ~~A~~DNR-2 (JLM-2).

Q. How are the following sections of your direct testimony organized?

A. My direct testimony is divided into two sections. Section I explains how the proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC could adversely impact safe, reliable, and adequate energy

[3] Exhibit ~~A~~DNR-1 (JLM-1), U21985-DNR-CE-0237, at 1.
[4] Redacted Purchase and Sale Agreement Between Consumers Energy and Confluence Hydro, LLC, RTB-1, at 19.

service in Michigan. Section II describes how the proposed sale may be inconsistent with public policy and interest.

SECTION I

IMPACTS TO SAFE, RELIABLE, AND ADEQUATE ENERGY SERVICE

Q. Please explain how the proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC could affect safe, reliable, and adequate energy service in Michigan

A. In my experience, Consumers Energy is and has been a trusted and responsible dam owner who not only responds to FERC dam safety directives but also aims to achieve FERC license conditions. As mentioned previously, the DNR has a long history of working collaboratively with Consumers Energy. A prime example of this collaboration is the hallmark November 23,1992, Offer of Settlement for the 11 Muskegon, Manistee, and Au Sable river projects whereby Consumers Energy agreed to allocate millions of dollars to address land management (including wildlife management and public recreation), soil erosion control, cultural resources management, fisheries resources, and water quality. Consumers Energy is also a regulated utility company that, under Michigan Public Service Commission oversight, is authorized to recover reasonable costs from ratepayers.

In contrast, Confluence Hydro, LLC is new hydropower project owner with an unproven track record that would not be subject to Michigan Public Service Commission oversight to recover reasonable costs; instead, my understanding is they could operate to maximize revenue and minimize costs, including costs associated with maintaining FERC license compliance. As

explained below, I have witnessed systemic problems with other private entities who own critical infrastructure such as hydropower projects and do not have the accountability associated with being a regulated utility company. These problems include lack of attention to dam safety and natural resources, as revenue is instead directed to shareholders as opposed to timely management of infrastructure. I have also witnessed problems with hydropower project owners who use complicated structuring of LLCs to limit liability and declare bankruptcy for single assets, all while ignoring FERC regulatory requirements.

Q. Please explain FERC's role in regulating dam safety and whether there are concerns with FERC's ability to require a licensee to perform recommended dam safety measures.

A. While FERC holds authority under the Federal Power Act to regulate dam safety, in my experience dam safety mandates are rarely enforced by FERC. It is my understanding that FERC has several enforcement mechanisms at their disposal: voluntary and implied surrender, license revocation, the imposition of civil penalties, seeking injunction relief in federal court, and referral to the Department of Justice for criminal prosecution; however, my experience has been that FERC is often slow to act and the only meaningful action they are willing to take is license revocation or enacting an implied surrender of the license. When this happens, the burden of regulating the dam for safety falls to the State of Michigan.

I am aware of recent experiences with non-compliance with dam safety measures at FERC-regulated hydropower projects in Michigan, including the Edenville Dam (FERC Project No. P-10808) and the Au Train Dam (FERC Project No. P-10856).

For the Edenville Dam, for over a decade, the dam owner did very little to come into compliance with FERC's dam safety directives, but FERC did nothing more than continue to send the owner letters. Eventually, FERC revoked the Edenville Dam license in September of 2018 and denied reconsideration by the licensee on June 20, 2019. That action cut off the dam owner's revenue, thus further decreasing the owner's ability and willingness to spend funds on dam safety measures. The Edenville Dam failed during a flooding event on May 19, 2020, causing the failure of the downstream Sanford Dam (FERC Project No. P-2785), requiring evacuation of over 10,000 residents, impacting over 2,500 structures, and causing hundreds of millions of dollars in structural and environmental damages.

For the Au Train Dam, FERC allowed dam safety issues to persist for more than 25 years, doing little more than sending letters reminding the owner to address the dam safety deficiencies. Even after the dam changed hands and multiple owners continued to disregard FERC's numerous demands, FERC still did not take direct enforcement action. Exhibits ~~A~~DNR-3 (JLM-3) and ~~A~~DNR-4 (JLM-4) include letters submitted to FERC by EGLE and DNR that highlight Au Train Dam safety concerns and urge FERC to

take action. It was only when the dam owner went bankrupt and lost control of its property that FERC took action and terminated the license by implied surrender on December 29, 2025, thus transferring jurisdiction of the dam to the State of Michigan. Exhibit ~~A~~DNR-5 (JLM-5) is a copy of FERC's order terminating the license.

These recent examples demonstrate that FERC is not an effective enforcer of its dam safety standards if the dam owner is unwilling to act. If a noncompliant dam owner would prefer not to invest in complying with FERC's dam safety directives, FERC will allow that situation to persist for many years.

Q. Please identify the hazard classification FERC has assigned to each of Consumers Energy's hydropower projects.

A. Of Consumers Energy's hydropower projects, all but one are considered high hazard. The classification of high hazard indicates that failure or mis-operation would not only cause expected loss of life and severe natural resource impacts, but also means higher investment costs for improvements and repairs to meet dam safety requirements.

- Hardy- High Hazard, approximate population at risk 3,800
- Rogers- High Hazard, approximate population at risk 800
- Croton- High Hazard, approximate population at risk 800
- Mio- High Hazard, approximate population at risk 1,100
- Alcona- High Hazard, approximate population at risk 600
- Cooke- High Hazard, approximate population at risk 800
- Foote- High Hazard, approximate population at risk 600
- Five Channels- High Hazard, approximate population at risk 474
- Loud- High Hazard, approximate population at risk 474
- Hodenpyl- High Hazard, approximate population at risk 800

- Tippy- High Hazard, approximate population at risk 800
- Webber- High Hazard, approximate population at risk 800
- Calkins Bridge- Low Hazard

Q. Please explain whether there are concerns with FERC's ability to require financial assurances to ensure licensees have the capability to carry out license requirements and maintain their projects in a safe condition.

A. As of 2021, FERC did not include license requirements to address whether a licensee could afford ongoing operation and maintenance expenses, required environmental or safety measures, or measures required to ensure the facility could meet future dam safety requirements. In their January 19, 2021, filing "Financial Assurance Measures for Hydroelectric Projects," provided as Exhibit ~~A~~DNR-6 (JLM-6), FERC invited comments on what changes, if any, they should make to their practices for requiring financial assurance measures in licenses and other authorizations for hydroelectric projects. In this filing, FERC noted an increased number of projects that are non-operational or out of compliance with their license conditions, where licensees have stated that they cannot afford to operate or maintain the projects or implement required environmental or safety measures. The filing also notes that while FERC staff regularly work with licensees to bring the projects back into compliance, they have mixed successes.

On March 26, 2021, the DNR submitted a letter to FERC addressing their request for comments on requiring financial assurance measures. This letter is provided as Exhibit ~~A~~DNR-7 (JLM-7). The DNR has a long-standing history of recommending financial assurances as part of hydropower project

licensing, including the ability to pay for the costs of eventual project decommissioning. Rivers are public resources and when they are dammed for hydropower generation, mitigation is needed for the damage to fish and wildlife (including their habitats), changes to recreational opportunities, and degradation of water quality. The need for financial assurances is especially paramount as dams age, become obsolete, or are shown to be inadequately designed for changing land use and environmental conditions.

Despite interest by FERC in 2021-2022 in addressing financial assurances, I've heard very little about this topic over the past few years and have seen no measurable changes. In talking with FERC staff, the current solution is to use a "Reservation of Authority to Require Financial Assurance Measures" as a standard license article in hydropower license transfers and new licenses. By doing so, FERC apparently reserves in the license the power to reopen the licensing process to potentially address funding issues if they see the need to do so. While I believe that FERC may have inserted this clause in licenses outside of Michigan, I am not aware of it being meaningfully used at any hydropower project to address non-compliance with dam safety measures. Meanwhile, as stated previously, the burden of non-compliant or unsafe dams falls to the State of Michigan when FERC orders license revocation or implied surrender of the license.

As of today, FERC does not require license transfer applicants to demonstrate in any meaningful way that the potential transferee has the

long-term financial means to maintain the project in compliance with FERC's safety and environmental requirements. I am not aware of FERC denying requests to transfer hydropower projects. I am also not aware of instances where FERC has placed meaningful financial assurance requirements on existing or transferred hydropower project licensees.

Q. Please explain whether there are concerns with FERC's ability to scrutinize hydropower project license transfers to new owners to ensure safe, reliable operations.

A. Section 8 of the Federal Power Act provides that no voluntary transfer of any license, or the rights thereunder granted, must be made without the written approval of FERC. An application requesting FERC's approval of a transfer must show that the transfer is in the public interest. In my experience, FERC's review of proposed license transfers appears to be an administrative review process; transfer applications are not heavily scrutinized, and transfer requests are rarely (if ever) denied. In fact, depending on the type of license transfer, FERC approval may or may not be needed; for example, changes in parent company corporate structure or licensee name only require FERC notification.

FERC describes the information needed and application process to transfer a license on their website Transfer a License and through provision of a License Transfer Application Template. Required information is characterized as an application statement, verification statement, proof of citizenship, evidence of compliance of transferor with all applicable state laws

or how the transferee proposes to comply, and qualifications of the transferee to hold the license and operate the project.

Q. Please explain whether there are concerns with Confluence Hydro, LLC's ability to operate, maintain, and decommission hydropower projects as needed to protect public safety and provide reliable energy and how this differs from the abilities of Consumers Energy.

A. Michigan is experiencing more frequent extreme weather events that are challenging for hydropower dam owners. To maintain safe, reliable operations at hydropower projects, this requires investment in knowledgeable operators and equipment and a commitment to maintain dams in a safe condition. Management of river flows during complex weather conditions, all while providing a reliable source of energy to customers, is not an easy or simple task for hydropower project owners.

I know that Consumers Energy has worked closely with the DNR, other state and federal agencies, tribes, and non-governmental organizations to operate and maintain their hydropower projects in a manner that is safe for the public and in compliance with their FERC licenses to achieve natural resource and recreational benefits. Consumers Energy has knowledgeable staff who are assigned to hydropower operations, natural resources, and cultural and historic resources protection. While some of these staff may transfer to Confluence Hydro, there is no guarantee that these staff —or their knowledge and relationships with agencies and others—will remain long-term.

Overall, I believe there is uncertainty surrounding operation, maintenance, and eventual decommissioning of the hydropower projects if they are sold to Confluence Hydro, LLC, which is a new hydropower project owner with an unproven track record.

Furthermore, there are concerns that Confluence Hydro, LLC may not have the same motivation as Consumers Energy does to address public interests and natural resource protections when the projects are relicensed by FERC in the not-so-distant future. Relicensing efforts typically begin at least 5 years prior to license expiration. The licenses for 11 projects (Alcona, Cooke, Croton, Five Channels, Foote, Hardy, Hodenpyl, Loud, Mio, Rogers, and Tippy) will expire in 2034, the license for the Calkins Bridge project will expire in 2040, and the license for the Webber Dam project will expire in 2041. Confluence Hydro, LLC stated in Discovery response 21985-DNR-CH-10 that they anticipate filing their relicensing Notice of Intent and Preliminary Application Document with FERC for each dam approximately six years prior to each current license expiring.[5] Relicensing is an intensive process and Confluence Hydro, LLC has no history of carrying out that process. While Hull Street Energy has experience in applying for hydropower project relicensing,[6] for the most part, affiliated entities controlled by Hull Street Energy have not seen the relicensing process through from start to finish as only one of these projects listed under relicensing experience, Lowell

[5] Exhibit ~~A~~DNR-8 (JLM-8), 21985-DNR-CH-10 at 11.
[6] Exhibit ~~A~~DNR-9 (JLM-9), 21985-ST-CH-2 at 3.

(P-2790), is currently owned and operated by Hull Street Energy or its affiliates.[7]

Lastly, I am concerned that Confluence Hydro, LLC does not have the same experience as Consumers Energy with management of high hazard dams. As stated previously, the classification of high hazard indicates that failure or mis-operation would not only cause expected loss of life and severe natural resource impacts, but also means higher investment costs for improvements and repairs to meet dam safety requirements. While the portfolio of dams managed by Hull Street Energy or its affiliates as listed in Exhibit ~~A~~DNR-14 (JLM-14) included high hazard dams, most were only owned for a period of 3–4 years.

SECTION II

PUBLIC POLICY AND INTEREST

Q. What are the natural resource impacts associated with operation of Consumers Energy's hydropower projects?

A. The negative effects of dams on natural resources are well known and established in peer-reviewed literature. Effects of dams are summarized in DNR Fisheries Division's January 18, 2023, Policy & Procedure 02.01.002 Dams and Barriers provided as Exhibit ~~A~~DNR-10 (JLM-10) and include water quality degradation, prevention of migration by fish and other aquatic organisms, altered sediment movement, and altered flow regimes. The DNR Fisheries Division March 2001 Au Sable River Assessment specifically

[7] Exhibit ~~A~~DNR-9 (JLM-9), 21985-ST-CH-1 at 2.

addresses effects of dams on river ecosystems including effects of Consumer Energy's hydropower[8] dams, water quality temperature and dissolved oxygen issues,[9] potential for improvements to sport fisheries,[10] some economic trade-offs of removing dams on the Au Sable River,[11] and considerations regarding upstream passage of Great Lakes fishes.[12]

On December 29, 2022, the DNR sent a letter to Consumers Energy, provided as Exhibit ~~A~~DNR-12 (JLM-12), with comments on their long-term hydropower review strategy and describing impacts of the hydropower project on a watershed and individual project basis. In this letter, the position of DNR Fisheries Division is stated as follows:

> The mission of Michigan DNR - Fisheries Division is: To protect and enhance Michigan's aquatic life and habitats for the benefit of current and future generations. As such, we most frequently accomplish this by promoting free-flowing and self-maintaining river and aquatic systems. Michigan DNR also recognizes that impoundments provide angling and recreational opportunities in their current state and that those opportunities would change in the event of dam removal. Consequently, Michigan DNR views elements of Consumers' evaluation as a matter of how best to transition as dams inevitably face retirement and decommissioning. We hope that this information helps ensure that the State of Michigan and communities affected by these dams are not unduly burdened by infrastructure that is no longer economical or by impacts and risks that are no longer justifiable.
>
> We also recognize that these dams pose a significant, ongoing risk to life and property, and their presence on the landscape up to this point

[8] Exhibit ~~A~~DNR-11 (JLM-11) at 29-33.
[9] *Id.* at 36
[10] *Id.* at 61.
[11] *Id.* at 62.
[12] *Id.* at 63.

has been justified by their value in producing electricity for the public. Consumers' own data shows that the contribution of these dams to energy production and security is limited, so the continued presence of the dams may not be justified compared to their costs and risk.

Michigan DNR has important responsibilities in this process, including honoring its commitments in the 1992 Settlement Agreement for 11 of 13 licenses that are involved in this review. As part of those responsibilities, Michigan DNR carefully considers information presented by Consumers and consults on proposed actions to best evaluate long-term disruptions to fisheries and recreational values. There are many areas where Consumers' decisions will have long-lasting and significant impacts, and we will continue to work with Consumers and others to maximize benefits for natural resources and those that rely on them, under any alternative Consumers and FERC identifies for each dam.[13]

In addition to the above impacts, both DNR[14] and EGLE[15] have provided comments regarding impaired water quality at Consumer Energy's hydropower projects. Recent analysis by EGLE staff using publicly available water quality data shows all 11 of the hydropower projects on the Muskegon, Manistee, and Au Sable rivers are consistently not meeting water temperature standards at downstream monitoring locations. Furthermore, artificially warm water temperatures have a cumulative adverse effect moving downstream as water exceeding state temperature standards moves through downstream projects on each river system. It has been established that these 11 projects adversely affect high-quality trout streams, which are designated and protected for coldwater fisheries use pursuant to R 323.1100,

[13] Exhibit ~~A~~DNR-12 (JLM-12) at 3.
[14] Exhibit ~~A~~DNR-13 (JLM-13), Exhibit ~~A~~DNR-17 (JLM-17), and Exhibit ~~A~~DNR-18 (JLM-18).
[15] Exhibit ~~A~~DNR-15 (JLM-15) and Exhibit ~~A~~DNR-16 (JLM-16).

resulting in an impaired waters listing in EGLE's 2024 Integrated Report. Comments submitted to FERC by EGLE on August 23, 2023,[16] and October 22, 2024,[17] are clear in saying failure by the licensee to demonstrate that projects are meeting Part 4 Water Quality Standards—particularly for water temperature—will jeopardize the impacted projects' ability to gain a grant of Clean Water Act Section 401 Water Quality Certification from EGLE, which is a required step for FERC relicensing before the 2034 expiration date.

Several of Consumers Energy's hydropower projects directly and indirectly negatively affect 2 of the 16 river systems designated as a Michigan Natural River under Part 305 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The Natural Rivers Program was developed to preserve, protect and enhance our state's finest river systems for the use and enjoyment of current and future generations. If a river is included in the program, it means it is a river system noted for its beauty and is of exceptional importance to the public for recreational purposes. Consumers Energy projects negatively impact designated Natural River reaches of the Au Sable River upstream of Loud Dam and including the portions of river affected by Alcona and Mio dams, and in the Lower Kalamazoo River downstream of Calkins Bridge Dam.

Q. How does Confluence Hydro, LLC plan to address water quality impairments at the hydropower projects if acquired?

[16] Exhibit ~~A~~DNR-15 (JLM-15).
[17] Exhibit ~~A~~DNR-16 (JLM-16).

A. In its discovery response, U21985-ST-CH-6.1 to the MPSC, Confluence Hydro says that, while they are "committed to working with state and federal regulators," they have "not identified a specific plan to address water quality issues" but are "working to identify potential mitigations and evaluate their technical and economic feasibility."[18]

I believe that it may be optimistic thinking to believe that there are readily available and inexpensive solutions to address water quality impairments. As noted in Consumers Energy's June 4, 2020 letter to FERC,[19] summarizing their water quality enhancement efforts, Consumers Energy spent $1.75 million in 1992 dollars for study, planning, design, and construction of water quality enhancements, including dissolved oxygen enhancement measures and water temperature enhancement measures for its hydroelectric projects on the Muskegon, Manistee, and Au Sable rivers. Even after all these efforts, all 11 of the hydropower projects on the Muskegon, Manistee, and Au Sable rivers still do not meet water temperature standards at downstream monitoring locations as noted in the previous answer. If EGLE is unable to provide a Clean Water Act Section 401 Water Quality Certification for the projects, it would mean the projects may not be able to be relicensed by FERC. It is concerning that Confluence Hydro, LLC does not have a plan to address this issue.

[18] Exhibit ~~A~~DNR-19 (JLM-19), U21985-ST-CH-6.1 at 3.
[19] Exhibit ~~A~~DNR-20 (JLM-20).

Q. Please explain what potential natural resource impacts could be associated with the proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC?

A. DNR Fisheries Division has noted problems associated with the transfer of hydropower dams to other entities going back to the 1970s. The 1972 Status Report on Michigan Dams describes the following problems within Enclosure #2 as:

> Ownership being transferred to private individuals or corporations or legal entities that do not have the financial capability to maintain the dam in good repair, or do not have the technical know-how in the operation of a dam's spillway facilities under flood flow conditions, thus posing a threat to downstream life and property, and to development on the impoundment should the dam fail.[20]

As mentioned previously, investment in knowledgeable operators and equipment and a commitment to maintain dams is needed for safe and reliable operation at hydropower projects. Unfortunately, DNR has seen how even seemingly little things, such as mechanical gate failure or inattentiveness of an operator, can result in significant natural resource damage including fish kills and downstream sediment releases. Examples of this include failure of the Golden Lotus Dam on the Pigeon River in June 2008, caused by gate malfunctioning that led to draining of the entire impoundment, that led to release of sediment and a catastrophic fish kill; and mismanagement of a drawdown at Morrow Dam on the Kalamazoo River that led to hundreds of thousands of cubic yards of sediment mobilization, catastrophic mussel kills, and disastrous impacts to fisheries. Overall, I

[20] Exhibit ~~A~~DNR-21 (JLM-21) at 7.

believe there is uncertainty surrounding operation, maintenance, and eventual decommissioning of the hydropower projects if they are sold to Confluence Hydro, LLC, a new hydropower project owner with an unproven track record. While Hull Street Energy has some experience managing FERC-regulated hydropower projects, a review of public filings to the FERC docket for those projects demonstrates delays, requests for extensions, and a lack of long-term project management.

Q. Could the proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC affect the amount of land open to the public for recreational purposes?

A. Lands within FERC hydropower project boundaries are, for the most part, available and open to the public free of use for recreational purposes. Typically, project lands excluded from public access are those in the immediate vicinity of the dam, powerhouse, and electrical infrastructure. Since at least the 1970s, the DNR has strongly advocated for the maximum amount of lands to be included within FERC project boundaries to help mitigate for the negative effects of damming a river and has strongly opposed any attempts to shrink project boundaries.

The lands within the current FERC project boundaries maintained by Consumers Energy, including 32,000 acres, provide benefits to fish, wildlife, and public recreation. According to the 1992 Offer of Settlement for the 11 Muskegon, Manistee, and Au Sable river projects Section 10.1 "CPCo shall

maintain within each hydroelectric project boundary all CPCo owned lands that were within the hydroelectric project boundary as of January 1, 1992."[21]

In a discovery response, Confluence Hydro, LLC stated, "Confluence Hydro does not intend to pursue any amendments to the dams' *current* FERC licenses to divest of land."[22] This statement, if taken at face value, means that Confluence Hydro, LLC could endeavor to divest project lands as early as 2034 when relicensing the 11 Muskegon, Manistee, and Au Sable river projects (Alcona, Cooke, Croton, Five Channels, Foote, Hardy, Hodenpyl, Loud, Mio, Rogers, and Tippy).

My understanding is that if Consumers Energy were to get approval to sell any project lands, the proceeds would go into the rate base as appreciated value and benefit customers. If Confluence Hydro, LLC were to sell project lands, the proceeds would go to shareholders. We believe this establishes motivation for Confluence Hydro, LLC to divest of project lands that are currently being used for public recreation.

The DNR has witnessed a troubling pattern whereby FERC is increasingly allowing dramatic reductions to project boundaries, both as stand-alone requests by licensees and in relicensing proceedings, and is largely ignoring recommendations by resource agencies to retain existing project boundaries for the benefit of the public. As a result, the DNR is concerned that public benefits of Consumers Energy's current land ownership

[21]Exhibit ~~A~~DNR-27 (JLM-27) at 22.
[22]Exhibit ~~A~~DNR-8 (JLM-8), 21985-DNR-CH-1 at 2 (emphasis added).

for recreational access are likely to be diminished if the hydropower projects are owned by Confluence Hydro, LLC.

Q. Please explain why the cost of project decommissioning provided by Consumers Energy may be overinflated.

A. I am aware of dam removal costs for completed projects, not only in Michigan but elsewhere in the United States. I have direct knowledge from participating in dam removal projects and through approval of DNR funding for these projects. The costs provided by Consumers Energy are not only significantly higher than actual dam removal costs reported elsewhere, but also include measures that are not typically included in dam removal projects including required fish passage, reservoir dredging, and extensive erosion control.

The DNR has criticized Consumers Energy for overinflating expected dam removal costs since at least 2007. In our filing to FERC on October 23, 2007, requesting rehearing on Consumers Energy's Retirement Study Report, we stated:

> [T]he Resource Agencies and MHRC have a number of technical concerns regarding the Retirement Study Reports and the conclusions derived in them. Most of these concerns focus on the estimated costs associated with Retirement Options 2 and 3 (partial removal and complete removal options). The Resource Agencies and MHRC feel that many of the measures proposed and/or the cost estimates associated with them are excessive and not based on real-world experiences in dam removal, some of which have occurred here in Michigan.[23]

[23]Exhibit ~~A~~DNR-22 (JLM-22)at 2–3.

In 2007, the DNR criticized unnecessary measures such as removal of accumulated sediments instead of allowing the river to re-establish itself through accumulated sediments, extensive seeding of former reservoir bottoms instead of allowing for natural recolonization of riparian areas, and unnecessary extensive erosion control measures. Rather than trying to resolve these concerns, e.g., through actually estimating sediment volume and levels of contamination, it appears as though Consumers Energy has carried forward the same concerning methodology and estimates from the Mead & Hunt 2007 report to more recent reports, which WSP then further increased by 199% (not including contingency or owners cost) to produce the full decommissioning estimate of $1,226,406,401.[24].

To compare the various removal amounts presented in Consumers Energy's October 31, 2025 application and the Mead & Hunt 2007 and 2013 reports, the DNR produced the following summary table of complete removal and partial removal costs:

[24]Exhibits ~~A~~DNR-23 (JLM-23) and ~~A~~DNR-23A (JLM-23A).

Dam Removal Total Cost Comparison			
Complete Removal			
Dam	**Mead & Hunt 2007***	**Mead & Hunt 2013****	**WSP 2025*****
Foote	$21,516,702.00	$24,845,988.00	$121,496,940.00
Alcona	$15,279,607.00	$17,640,447.00	$81,680,654.00
Mio	$16,167,578.00	$18,884,783.00	$82,791,646.00
Loud	$13,227,978.00	$15,195,137.00	$47,075,060.00
Cooke	$21,829,955.00	$28,887,989.00	$103,103,058.00
Five channels	$13,211,411.00	$15,191,437.00	$39,587,216.00
Rogers	$20,916,522.00	$24,314,238.00	$75,362,505.00
Hardy	$46,998,402.00	$53,565,770.00	$280,432,071.00
Croton	$31,441,987.00	$38,828,999.00	$147,014,561.00
Tippy	$27,023,785.00	$31,415,469.00	$96,249,846.00
Hodenpyl	$53,279,155.00	$63,023,442.00	$195,493,171.00
Calkins Bridge		$9,486,252.00	$209,327,853.00
Webber		$17,522,140.00	$59,847,415.00
Total	**$280,893,082.00**	**$358,802,091.00**	**$1,539,461,996.00**
Partial Removal			
Dam	**Mead & Hunt 2007***	**Mead & Hunt 2013****	**WSP 2025*****
Foote	$18,862,041.00	$21,851,493.00	$115,874,743.00
Alcona	$10,787,717.00	$12,573,565.00	$70,139,015.00
Mio	$14,184,517.00	$16,577,673.00	$71,483,105.00
Loud	$11,866,621.00	$13,631,586.00	$41,922,313.00
Cooke	$24,177,316.00	$28,151,717.00	$95,105,419.00
Five channels	$12,272,280.00	$14,132,077.00	$39,421,714.00
Rogers	$18,511,092.00	$21,596,861.00	$66,373,847.00
Hardy	$40,379,807.00	$46,098,884.00	$262,317,648.00
Croton	$28,030,624.00	$32,973,218.00	$130,885,859.00
Tippy	$25,598,485.00	$29,807,592.00	$89,893,656.00
Hodenpyl	$47,682,855.00	$56,159,543.00	$136,450,814.00
Calkins Bridge		$9,473,501.00	$194,830,959.00
Webber		$16,746,753.00	$54,743,102.00
Total	**$252,353,355.00**	**$319,774,463.00**	**$1,369,442,194.00**

*Mead & Hunt 2007 in 2006 dollars
**Mead & Hunt 2013 in 2012 dollars
***WSP 2025 in 2022 dollars

Table 1 – Consumers Energy Full and Partial Decommissioning Cost Comparison

I am concerned with WSP's high-cost estimate of $318 million for managing contaminated sediment, a cost that was not assumed in Mead & Hunt estimates as shown in Exhibits ~~A~~DNR-23 (JLM-23) and ~~A~~DNR-23A (JLM-23A). In a discovery response to MHRC, Consumers Energy said this assumption was derived from web-based research and a "likelihood that contamination may be a factor due to urbanized development and usage in the watershed" for the following dams: Hardy, Croton, and Rogers in the

Muskegon Watershed; Alcona and Mio on the Au Sable; Calkins on the Kalamazoo; and Webber on the Grand River.[25] Without actual sediment testing, I have no faith in this number and can attest that, apart from rivers that have been declared Superfund sites by the Environmental Protection Agency such as the Kalamazoo River, the broad assumption of contaminated sediment is without merit.

For partial dam removals, the WSP 2025 Conceptual Decommissioning Cost Estimates for Surrender and Decommission–Partial Removal scenarios make several assumptions that do not align with my experience. The cost estimates provided include construction of new weir control structures approximately six feet in height and installation of fish passage. In my experience with partial dam removal projects, rather than the more expensive approach of constructing a new, smaller dam, a notch in the existing dam structure is created to lower the dam height. As for fish passage at partially removed dams, this scenario would involve discussions with state and federal agencies and may not be advantageous in certain circumstances, e.g., to prevent passage of invasive Sea Lamprey, and therefore would not be constructed at each dam. Furthermore, the construction of Sea Lamprey barriers, if necessary, would likely involve some level of federal funding to offset the costs of the dam owner. In response to the DNR's discovery request asking for additional information and revised

[25]Exhibit ~~A~~DNR-24 (JLM-24), U21985-MHRC-CE-0337 at 2–3.

cost estimates to better align with measures typically seen in dam removal projects, Consumers Energy responded: "The Company cannot provide the requested document because no such document exists. The requested cost estimates have not been developed by WSP or Consumers Energy."[26] Without realistic and accurate decommissioning costs, it is not clear to me how these estimates can be viewed as reliable.

As part of this testimony, I am providing the publicly available October 2023 Practitioner's Guide to Hydropower Dam Removal by American Rivers and Hydropower Reform Coalition which provides case studies and removal costs for FERC-regulated hydropower dams. For comparison, I provide removal costs for the following Michigan former hydropower dams:

- Boardman Dam: $10,500,000 removed 2017;[27]
- Brown Bridge Dam (page 48): $4,400,000, removed 2013;[28] and
- Sabin Dam (page 48): $6,000,000, removed 2018.[29]

I am also sharing as Exhibit ~~A~~DNR-28 (JLM-8) GEI Consultant's December 2025 estimate for removal of Consumers Energy's former Boyne Falls hydropower dam in Charlevoix County. For this project, options for complete dam removal and river restoration were estimated to be between $9,433,100 and $11,283,000 including 30% contingency, with approximately $2,000,000 in additional costs for design and oversight.[30] GEI's total

[26]Exhibit ~~A~~DNR-25 (JLM-25), U21985-DNR-CE-0234 at 1–2.
[27]Exhibit ~~A~~DNR-26 (JLM-26) at 48.
[28]*Id.*
[29]*Id.*
[30] Exhibit ~~A~~DNR-28 (JLM-8), Appendix F – Cost Estimate, Options 1 – 3.

estimated project costs include estimates addressing road crossings that are unique to the Boyne Falls project which I excluded for the purposes of comparing dam removal costs. These estimates were derived after a thorough evaluation of existing conditions including "reviewing archival documentation, conducting topographic and bathymetric surveys, analyzing sediment characteristics, delineating wetlands, assessing habitat for threatened and endangered species, defining river reference conditions, and examining geotechnical data and utility conflicts."[31] These estimates include steps and approaches that are typically conducted when developing realistic and accurate dam removal cost estimates and represent steps and approaches that should be conducted by Consumers Energy to develop accurate and reliable cost estimates for removal of their 13 hydropower projects. Interestingly, while my purpose in sharing this example is to highlight a well-justified former hydropower dam removal cost estimate, it is worth pointing out that this dam was sold by Consumers Energy to the Village of Boyne Falls for $1 in 1956, further demonstrating how uneconomical hydropower dams often become a public liability and financial burden.

In my experience, the scope of Consumer Energy's proposed partial and complete removals is beyond what has typically been required for other

[31] *Id*. at 1.

projects in Michigan. I believe the estimates could be updated to develop more realistic cost estimates.

Q. Please explain whether there are alternatives within the proposed sale option that may be better for not only rate payers, but also natural resources.

A. Rather than selling all 13 hydropower projects to a single owner, there are other approaches that could reduce risks and costs. This includes Consumers Energy's continued operation of all projects until FERC license expiration and only pursuing relicensing for those projects that are the most economical to operate, and then decommissioning the remaining projects. This approach allows Consumers Energy to retain oversight for these projects rather than selling them to unprepared, underfunded, or unqualified entities to avoid adverse outcomes for both customers and natural resources.

As another approach, communities who want to retain impoundments created by these hydropower dams can pursue establishment of legal lake levels under Part 307 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. If enacted, a Circuit Court-ordered legal lake level would allow for a special assessment district of benefited property owners to defray the costs of establishing and maintaining an established lake level. These costs may include construction, operation, and maintenance of the control structure (dam) to maintain the legal lake level.

Q. Are any of Consumers Energy's hydropower dams critical for control of invasive Sea Lamprey?

A. Sea Lamprey are an invasive, parasitic fish that, without control, could lead to massive fish deaths, ecosystem imbalance, and collapse of important commercial and recreational fisheries including the Great Lakes fishery which generates $5.1 billion a year in economic activity. Sea Lamprey are intensively controlled through various means including selective chemicals (lampricide), trapping, alternative controls (e.g., pheromones, release of sterilized males), and barriers. Currently, the following Consumers Energy's hydropower dams are important Sea Lamprey control barriers on the U.S. Fish and Wildlife Service's lowermost barrier list: Tippy Dam, Croton Dam, Calkins Bridge Dam, and Foote dam. Of these, Tippy Dam and Croton Dam are included in the "Top 25 Sea Lamprey Control Program Lowermost Barriers of Importance List" drafted by the U.S. Fish and Wildlife Service in October 2025. With that said, even though these dams currently serve to block Sea Lamprey upstream passage, these dams do not necessarily need to remain in their current configuration or location to achieve Sea Lamprey control goals. It is possible that new lower barriers, seasonal barriers in alternative locations, or other methods of Sea Lamprey control treatment may be preferred to reach control goals and objectives.

Q. Does this conclude your direct testimony?

A. Yes, it does.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of Consumers Energy Company for approval of the sale of its River Hydroelectric Generating Fleet, related Power Purchase Agreement, and other relief.

MPSC No. U-21985

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REDACTED

REVISED DIRECT TESTIMONY

OF

LUCAS A. TRUMBLE

ON BEHALF OF

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

~~February~~ March 2026

Q. Please state your name and business address.

A. My name is Lucas A. Trumble, and my business address is 525 W. Allegan Street, Lansing, Michigan, 48933.

Q. What is your educational background?

A. I have a Bachelor of Science degree in Civil and Environmental Engineering from Michigan State University

Q. By whom are you employed?

A. I am employed by the Michigan Department of Environment, Great Lakes and Energy (EGLE), Water Resources Division.

Q. How long have you been employed by Michigan Department of Environment, Great Lakes, and Energy?

A. I have been employed by EGLE since September 2010.

Q. What is your current position with Michigan Department of Environment, Great Lakes, and Energy?

A. I am Field Operation Engineering and Enforcement Section Manager.

Q. What are your responsibilities as Field Operations Engineering and Enforcement Section Manager?

A. I oversee EGLE Water Resources Division's Dam Safety, Transportation Review, Hydrologic Studies and Floodplain Management, Resources Enforcement, and Water Quality Enforcement Units. In this capacity, I direct staff and unit managers in:

- Administration of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

- Administration of Part 301, Inland Lakes and Stream, of the NREPA.
- Administration of Part 303, Wetlands Protection, of the NREPA.
- Administration of Part 307, Inland Lake Levels, of the NREPA.
- Administration of Part 315, Dam Safety, of the NREPA.
- Performance of compliance and enforcement actions when regulated entities fall out of compliance with these Parts.

Q. Have you previously provided testimony before the Michigan Public Service Commission ("MPSC" or the "Commission")?

A. No.

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of my testimony is to provide additional information, on behalf of the Michigan Department of Natural Resources (DNR), to the Michigan Public Service Commission related to existing risks associated with proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC. In my role as an EGLE employee providing dam safety expertise to DNR, I will provide additional testimony to the Commission on how hydropower projects affect public health and safety and natural resources and their potential to negatively impact Michigan's public health and safety and natural resources if the hydropower projects are not operated and maintained properly.

Q. Are you sponsoring any exhibits with your direct testimony?

A. Yes, I am sponsoring the following exhibits:

Exhibit DNR-29~~B-1~~ (LAT-1)	June 19, 2020, FERC Letter to U.S. House of Representatives, Committee on Energy and Commerce
Exhibit DNR-30~~B-2~~ (LAT-2)	June 1, 2022, FERC Order Approving Moore's Park Dam Surrender of License
Exhibit DNR-31~~B-3~~ (LAT-3)	September 10, 2018, FERC Order Revoking Edenville Dam's License
Exhibit DNR-32~~B-4~~ (LAT-4)	September 22, 2020, EGLE Comments to FERC's July 24, 2020 Notice of Proposed Rule Making

Q. What is EGLE's role in Consumers Energy's FERC hydropower proceedings?

A. EGLE is assisting the DNR, who is a party to Consumers Energy's FERC hydropower proceedings for each of their 13 dam projects, by providing dam safety expertise not currently available within DNR.

Q. Please explain how the proposed sale of Consumers Energy's hydropower projects to Confluence Hydro, LLC could impact the ability to safely maintain and operate the 13 Consumers Energy Hydropower Projects.

A. Consumers Energy, as a regulated utility in the State of Michigan, is subject to Michigan Public Service Commission oversight related to electric rates. As such, Consumers Energy has the ability to seek to recover investment into the safe operation and maintenance of their dams through increases in electric rates. They have a proven track record in Michigan for safe operation and maintenance of their dams and a clear focus on investing in dam safety.

Confluence Hydro, LLC does not currently have a presence in Michigan and would not have the same ability to recover costs related to dam

investments in the same way that Consumers Energy does currently. Rather, Confluence Hydro, LLC would receive revenue from purchase of power produced at the dam through a power purchase agreement with Consumers Energy. This revenue would then, in turn, be used to fund staffing, operations and maintenance, and profit and overhead necessary to manage Confluence Hydro, LLC's normal business practices. When revenue is sufficient to meet these needs, then continued safe operations and maintenance of the dams is possible. However, if costs increase or if revenue decreases over time, then the continued investment as needed for safe operation and maintenance of the dams may no longer be possible from generation revenue alone. It is my understanding that typical power purchase rates for hydropower in the State of Michigan are much less than what is being proposed between Consumers Energy and Confluence Hydro, LLC, so the concern is two-fold:

1. Is the currently proposed 30-year power purchase agreement adequate to support safe operation and maintenance of all 13 dams over the duration of the agreement?
2. Will revenue from future power purchase agreements be sufficient to support safe operation and maintenance of the dams, similar to what Consumers Energy has provided in past?

There are several recent examples of bad outcomes for dam safety in the State of Michigan in which hydropower generation revenue was not adequate

to provide safe operation and maintenance of dams. In these examples, the dams fell into disrepair, did not receive necessary safety upgrades, and in some cases resulted in failure of dams, jeopardizing public health, safety, and welfare, and causing harm to natural resources.

Q. Please explain the regulatory structure for hydropower dams in the State of Michigan and any concerns you have related to safety of hydropower dams that stem from this regulatory structure.

A. FERC has dam safety regulatory authority over all dams that are licensed to generate hydropower under the Federal Power Act. Conversely, Part 315, Dam Safety, of the NREPA, exempts hydropower dams that are licensed under the Federal Power Act. In other words, the State does not have dam safety jurisdiction over FERC regulated dams.

In my experience, I have often witnessed FERC struggle to compel compliance by licensees on dam safety matters utilizing regulatory tools they have at their disposal. This is highlighted by events at the Edenville Dam, Au Train Dam, and several other examples where FERC tried for years, unsuccessfully, to compel licensees to make necessary dam safety improvements. The most common responses from licensees when requesting additional time to complete these upgrades, or explaining why they cannot, is lack of sufficient funding to complete necessary projects to come into compliance with safety regulations.

Following the failure of the Edenville and Sanford Dams on May 19, 2020, FERC sent a letter to the U.S. House of Representatives, Committee on

Energy and Commerce on June 19, 2020, in response to inquiries they had received from the Committee. I have provided this letter as Exhibit DNR-29~~B-1~~ (LAT-1). The letter highlights the inability of FERC to compel licensees to complete necessary safety upgrades, stating that while the Federal Power Act allows FERC to levy civil penalties, such actions are not typically effective in bringing licensees into compliance. It is my understanding that FERC has taken this stance because it believes fines take away revenue that could have gone towards safety improvements. The letter goes on to state that FERC, "makes every effort to work with licensees to resolve compliance issues before resorting to more punitive measures, such as issuance of a cease generation order, the assessment of civil penalties, or license revocation."[1] FERC even goes on to indicate that, "Michigan has extensive dam safety regulations, including enforcement mechanisms such as the ability to commence a civil action for appropriate relief for violations."[2]

In short, FERC has stated that they are reluctant to take compliance actions they have at their disposal because those compliance tools often take revenue away from licensees who are already struggling to finance necessary safety upgrades, and they believe that the State of Michigan has additional compliance tools that are better suited for compelling compliance from dam owners. In practice, what this means is that if licensees do not voluntarily

[1] Exhibit ~~B-1~~DNR-29 (LAT-1) at 2.
[2] *Id*. at 3.

comply with directives from FERC, then FERC has demonstrated that they have little recourse other than eventually terminating the license and turning regulatory authority over to the State, often after long periods of non-compliance.

Q. What happens when FERC terminates a license to generate hydropower?

A. Once FERC terminates a license, they no longer have any regulatory authority over the safety of the dam. And, since there is no longer a license under the Federal Power Act, the Part 315 exemption no longer applies. Basically, the dam immediately falls to State jurisdiction for dam safety.

In my experience, license termination has happened in one of three ways:

1. Voluntary surrender by the licensee. Under this scenario, the licensee files an application with FERC to begin the license surrender process, presumably because it is no longer economically viable to continue to generate hydropower at the dam. The process takes on average two years and involves consultation between FERC, the licensee, and State agencies including EGLE and DNR. The purpose of the consultation is to determine if the dam, in its current condition, would 1) satisfy state regulatory requirements, including dam safety requirements; or 2) if modifications would be needed in order to comply with state law. In the first case, the State does not object to the surrender of the FERC license and the application is granted by FERC. In the second case,

FERC will not typically grant the surrender until the dam is made to come into compliance with state regulations or there is a plan to remove the dam that is acceptable to all parties. A key requirement for successful consultation and completion of the voluntary surrender process is that the licensee must be willing and financially able to implement whatever requirements FERC imposes in the surrender order, including making dam safety upgrades if necessary.

2. Termination of license via implied surrender. Under this scenario, the licensee is no longer able to meet the requirements of the license, typically because they have lost control over the dam. There have been several recent occurrences of this type of surrender in Michigan, all of which have involved the licensee losing ownership of project lands either through condemnation or foreclosure. Ultimately, not only can the licensee no longer safely operate the dam, but also lacks the ability to make any necessary safety upgrades to ensure safe and reliable performance of the dam structures. In these cases, FERC does not typically impose any requirements on the licensee, because they could not fulfill those requirements anyway, and the dam falls to state jurisdiction immediately upon termination of the license in whatever condition it is in. When a licensee has its license terminated due to loss of project lands, the dam is often in disrepair as investments were not made to address dam safety concerns.

3. License revocation. Under this scenario, FERC has typically exhausted all regulatory options and the licensee has not achieved compliance with FERC requirements. If there is no hope that the licensee will take meaningful steps to achieve compliance, FERC has the option of revoking the license to generate hydropower. In these cases, there has typically been a long period of non-compliance, deferred maintenance on the dam, and lingering dam safety concerns. Similar to license termination by implied surrender, license revocation orders neither include a consultation period or requirements to bring the dam into compliance with state dam safety standards. So, again, regulatory authority transfers immediately to the State and the dam remains in disrepair.

Q. What happens when a FERC license is terminated and the State takes over dam safety regulatory authority? Can you provide examples?

A. In the case of voluntary surrender of a FERC license, it's a relatively smooth transition from FERC to State jurisdiction. In this scenario, dams are typically in compliance with state safety standards, and the owner typically has the financial and operational capacity to continue to maintain and operate the dams in a safe and reliable manner. However, in cases of implied surrender or revocation of a FERC license, there are many challenges in the transition from FERC to State regulatory authority. Here, dams typically fall to state jurisdiction in very poor condition with lingering dam safety

concerns, as the owners have lost most or all of the revenue stream (hydropower generation) that could be used for operation and maintenance. In short, the State is faced with the challenge of trying to bring dangerous dams into compliance with safety standards with dam owners who have a long track record of non-compliance and no revenue from hydropower generation to put towards improving the condition of the dam.

The following are recent examples that have occurred in Michigan for each license termination scenario:

1. Voluntary surrender – Moore's Park Dam, Ingham County. In this case, the Lansing Board of Water and Light (LBWL) determined that it was no longer feasible to continue to generate hydroelectricity at the dam and filed a petition with FERC to surrender its license. State agencies were consulted and reviewed engineering documents related to the dam, including past inspection reports, plans, and other engineering analyses and technical documents, and ultimately determined that the dam was in satisfactory condition and met or exceeded state dam safety standards. FERC issued an order approving surrender of license on June 1, 2022. I have provided this order as Exhibit DNR-30~~B-2~~ (LAT-2). The dam is now under state jurisdiction and LBWL has retained ownership of the dam and has both the financial and operational capacity to continue to operate and maintain the dam in a safe manner and is committed to doing so into the future.

2. Implied surrender – Au Train Dam, Alger County. In this case, after a long period of non-compliance under FERC jurisdiction and failure to make necessary dam safety improvements, the licensee, Renewable World Energies (RWE), also lost control over project lands including the parcel where the powerhouse sits, thus triggering a termination of license via implied surrender by FERC. This action became final on December 29, 2025, but the order did not contain any requirements to bring the dam into compliance with State of Michigan Dam Safety standards.[3] EGLE is currently working with the dam owner, RWE, to find a viable solution to address dam safety concerns, which include lack of sufficient spillway capacity to convey the probable maximum flood, structural and embankment stability concerns, and general condition concerns. The ability to address outstanding dam safety concerns is increasingly difficult because RWE no longer generates any revenue from hydropower generation and has recently undergone bankruptcy proceedings.

3. Revocation – Edenville Dam, Gladwin/Midland Counties. In this case, after decades of non-compliance under FERC jurisdiction and failure to make necessary improvements to the dam, the licensee, Boyce Hydro, lost their license to generate hydropower via revocation by FERC. I have provided FERC's order revoking license as Exhibit DNR-31 ~~B-3~~

[3] See Exhibit DNR~~A~~-5 (JLM-5).

(LAT-3). Similar to the implied surrender scenario described above, the license revocation at the Edenville Dam did not include any consultation with the State nor did the revocation order require Boyce Hydro to make any safety improvements at the dam. Approximately 20 months after FERC license revocation, the Edenville Dam failed during a flood event, causing the failure of the downstream Sanford Dam, impacting 2,500 structures, forcing evacuation of 10,000 people, and causing an estimated $200,000,000 in damages.

Q. Has EGLE ever made recommendations to FERC about how they could better handle issues of non-compliance at hydropower dams?

A. Yes. On September 22, 2020, EGLE responded to FERC's July 24, 2020, Notice of Proposed Rule Making. In EGLE's response letter, which I have provided as Exhibit DNR-32~~B-4~~ (LAT-4), we urged FERC to consider implementing rules which required licensees to bring their dams into compliance with all state dam safety requirements or, at the very least, implement risk reduction measures such as drawdown, modification, or removal of the dam prior to issuing an order revoking a license to generate hydroelectricity and turning the dam over to state regulatory jurisdiction. The letter also recommends that FERC establish a funding mechanism that would grant FERC the ability to step in and take necessary actions when the licensee fails to do so. The rationale for these recommendations being that revoking the license without forcing these types of actions not only eliminates revenue that could have been used to address lingering safety concerns, but

also shifts responsibility to the state regulatory agency to try to address those concerns which were not addressed while under FERC jurisdiction.

Later, on December 15, 2025, EGLE also responded to a notice proposing termination of the Au Train Dam license by implied surrender, issued by FERC on November 14, 2025.[4] Similar to license revocation, implied surrender orders do not typically include corrective actions to be completed by the licensee prior to termination of the license as the licensee has typically lost control or abandoned the project at that point and has little means to take any meaningful action. Such was the case with the Au Train Dam. In that letter, EGLE made many of the same recommendations as were made in the September 22, 2020 letter, but also urged FERC to further utilize the compliance tools they have at their disposal, including seeking injunctive relief from the courts to force licensees into action when they fail to comply with dam safety orders issued by FERC.[5]

Q. Has FERC implemented any of these suggestions EGLE has made?

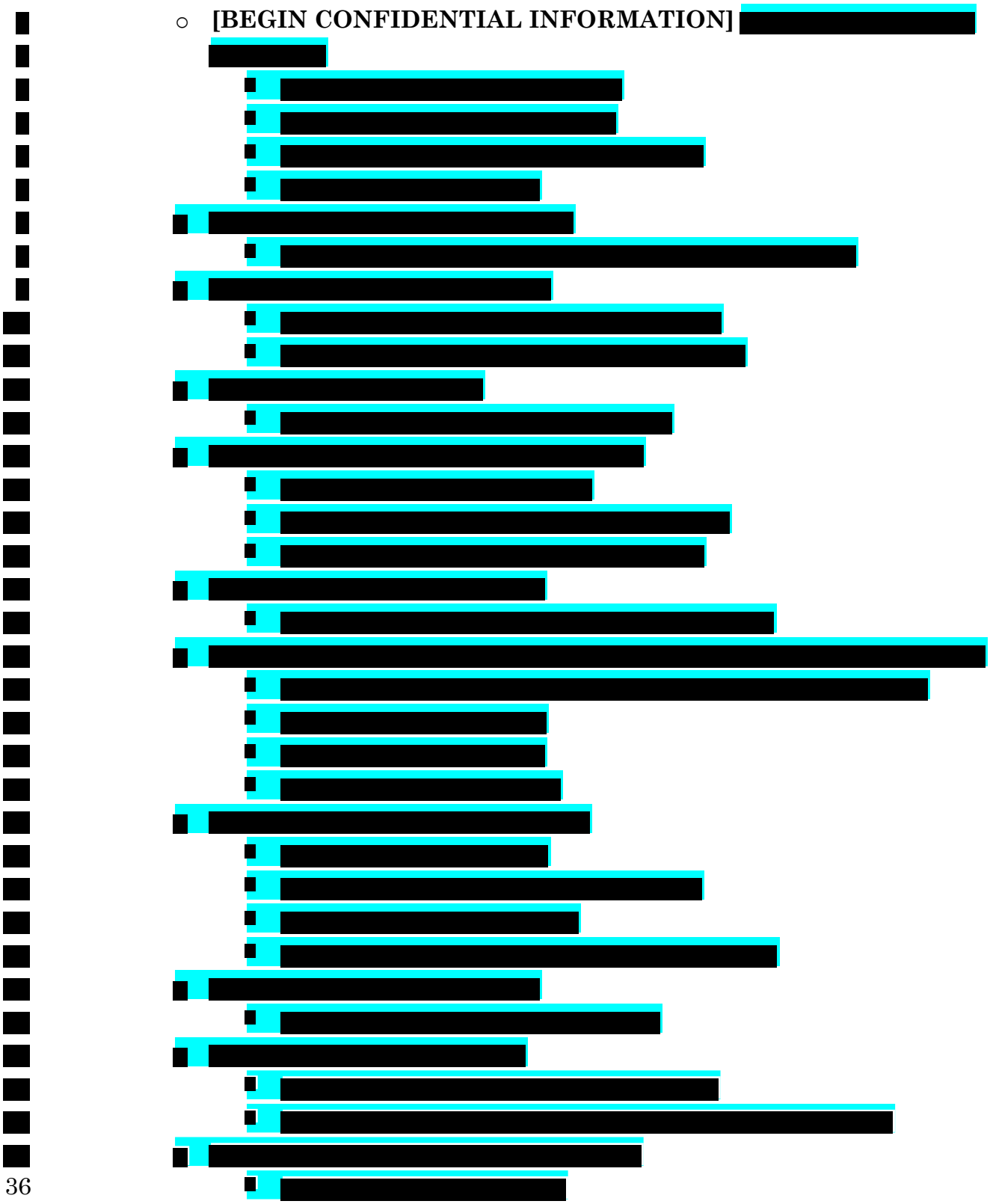
A. Not to my knowledge.

Q. Please explain how FERC describes existing dam safety conditions of Consumers Energy's hydropower projects.

A. The latest Part 12D inspection reports for the dams include the following conditions assessments and recommended corrective actions:

[4] Exhibit DNR~~A~~-3 (JLM-3).
[5] *Id.*

- **[BEGIN CONFIDENTIAL INFORMATION]** [redacted]



[redacted]

[6] This information comes from Consumers Energy's Confidential 21985-DNR-CE-0223 discovery response. I am not reproducing the reports because Consumers already has them.

[redacted] **[END CONFIDENTIAL INFORMATION]**

In addition to these recommended corrective actions, the Part 12D inspection reports also include assessment of Potential Failure Modes and likelihood of those failure modes developing. For these Potential Failure Modes Analyses (PFMAs), each failure mode is categorized as follows:

- Category I – Highlighted Potential Failure Modes – Those potential failure modes of greatest significance considering need for awareness, potential for occurrence, magnitude of consequence and likelihood of adverse response (physical possibility is evident, fundamental flaw or weakness is identified and conditions and events leading to failure seemed reasonable and credible) are highlighted.
- Category II – Potential Failure Modes Considered but not Highlighted – These are judged to be of lesser significance and likelihood.
- Category III – More Information or Analyses are Needed in order to Classify.
- Category IV – Potential Failure Mode Ruled Out – Potential failure modes may be ruled out because the physical possibility does not exist, information came to light which eliminated the concern that had generated the development of the potential failure mode, or the potential failure mode is clearly so remote a possibility as to be non-credible or not reasonable to postulate.

The most up to date PFMAs for the 13 dams highlight the following **[BEGIN CONFIDENTIAL INFORMATION]** **END CONFIDENTIAL INFORMATION]**

In general, Category I PFMs require immediate consideration and dam owners should take meaningful steps to reduce the risk of those PFMs developing; Category II PFMs are less concerning but still warrant consideration for implementation of risk reduction measures; while Category

[7] This information comes from Consumers Energy's Confidential 21985-DNR-CE-0223 discovery response. I am not reproducing the reports because Consumers already has them.

III and IV PFMs do not typically require risk reduction measures, but may require additional evaluation to determine if a credible risk exists.

Q. Please explain any concerns you have related to these existing dam safety conditions.

A. In general, **[BEGIN CONFIDENTIAL INFORMATION]** [redacted] **[END CONFIDENTIAL INFORMATION]**. I have two main concerns with the potential sale of Consumers Energy's dams to Confluence Hydro, LLC. The first being that Consumers Energy has the ability to invest in dam safety and recover those costs, whatever they may be, through increases in electric rates to their customers. This structure has proven to be successful in the past, even when constructing very large, expensive projects. If the dams are sold to Confluence Hydro, LLC, they will be subject to the rates established in their Power Purchase Agreement and will not have the ability to increase revenue to offset any unexpected or increased costs to perform necessary dam safety improvements. Additionally, Confluence Hydro, LLC is a newly formed LLC and will need immediate access to large amounts of capital to continue with

planned upgrades, including the Hardy Dam auxiliary spillway project, which I understand will cost hundreds of millions of dollars alone. I'm not fully aware of Confluence Hydro, LLC's plan to finance these planned projects, but presumably those costs will be repaid over time through sale of electricity under the Power Purchase Agreement. My concern with this is whether available financing and future sale of electricity will allow for Confluence Hydro, LLC to complete all safety upgrades currently planned by Consumers Energy, along with any new safety concerns that may develop, in a timely manner, or if maintenance would get deferred until adequate funding becomes available.

My second main concern is that the proposed Power Purchase Agreement between Consumers Energy and Confluence Hydro, LLC includes purchase rates which are much higher than what I've seen in other Power Purchase Agreements for hydroelectricity. Initially, this sounds like a good thing, but the proposed Power Purchase Agreement only lasts 30 years, so my concern is that after 30 years a new Power Purchase Agreement may not include such favorable rates and fall more in line with other power purchase agreements where the rates are driven by market rates for replacement costs. As dams continue to age and construction costs continue to rise, the potential for less generation revenue under a future power purchase agreement could put the continued safe and reliable operation of the hydroelectric facilities at risk.

Q. Please explain any concerns you have with the cost estimates for full removal of the 13 dams provided by Consumers Energy in their application.

A. I reviewed the 2007 and 2013 Mead & Hunt, 2021 Kiewit, and 2025 WSP cost estimates and methodologies provided by Consumers Energy. I believe that several items in those estimates assumed construction practices, which in my experience with over 50 dam removal projects in the state of Michigan, are not standard practice, including the following:

- inclusion of large contingencies for specific line items when the overall cost estimate already employs a large contingency;
- draining of reservoirs over a 50-month period;
- hydraulic dredging of the former stream channel prior to drawdown;
- dredging of the entire or large portions of the drained reservoirs without first accurately quantifying the volume of sediment that has deposited;
- removal and offsite disposal of large volumes of presumed contaminated sediments without first performing sediment quality analyses;
- very large grading costs for the entire reservoir area;
- and very large seeding and planting costs for the entire reservoir area.

In my experience with typical dam removals in Michigan, many of these practices do not occur. My concern with many of the assumptions made in the cost estimates provided is that they add tens of millions of dollars to the overall cost of removal.

Q. What are some of the items typically included in dam removal cost estimates?

Typical dam removal cost estimation practices include:

- Utilizing unit costs and quantities for construction practices and not including additional line-item cost contingencies above the overall contingency for the estimate.
- Estimating cost associated with performing and monitoring draining of reservoirs based on a typical drawdown rate, usually six inches per day, unless there are compelling reasons to consider a slower drawdown rate.
- Dredging of the stream channel during and after drawdown has occurred using terrestrial excavation equipment rather than hydraulic dredging prior to drawdown. Note that including costs of widespread dredging of exposed reservoir areas following drawdown is almost never completed unless widespread contamination is present and requires remediation
- Performance of screening level sediment characterization or making assumptions on expected contamination levels in reservoir sediments based on past sediment quality data. Estimating need for removal of contaminated sediments based on that data rather than a general assumption of percentage that will be contaminated.
- Estimate costs of offsite disposal of contaminated sediments based on data driven approach described above.

- Estimation of grading, seeding, and planting costs based on areas that will be directly impacted by channel and floodplain restoration and onsite spoils disposal rather than assuming that the entire, or at least large portions of the reservoir will be disturbed and require grading.

The report prepared by GEI Consultants for the Boyne Falls hydropower dam in Charlevoix County, included with the testimony of Jessica Mistak (Exhibit ~~A~~ DNR-28 (JLM-28), is consistent with what I typically would expect to see for a dam removal project in Michigan.

Q. Which assumptions made by Consumers Energy have the greatest impact on the cost estimates for dam removal?

A. The greatest impact on cost is the assumption of dredging and excavation volumes that include very large portions of the exposed reservoir bottom. In my experience, dredging is only required to restore the pre-dam channel and floodplain. and any other grading occurs in spoils areas and access/haul roads. Other areas would be left undisturbed and would not require additional grading or seeding/planting. In turn, only those disturbed areas require grading, stabilization and seeding. Planting of trees and shrubs can also be completed if the dam owner would like to speed up the process of establishing that type of vegetation in the former reservoir areas, but it is not typically necessary in undisturbed area since the native seed bank present in the sediments will re-establish vegetation very quickly after those sediments

become exposed. The assumption that all, or nearly all, of the exposed reservoir areas will need to be dredged and graded, also then requires that those areas are seeded and stabilized. When all of these things are considered together, the cost estimates increase by tens of millions and sometimes over a hundred million dollars, when compared to what I consider a more typical approach to dam removal in Michigan.

Q. Can you estimate potential cost savings by implementing a dam removal approach more consistent with past Michigan projects?

A. Yes. To estimate the potential cost saving by implementing a dam removal approach more consistent with past Michigan projects, I recreated and modified the 2025 WSP spreadsheet cost estimate calculation in accordance with the items outlined above. A summary of those potential cost savings is provided below. It should be noted that these are not my opinion of *actual* project costs but merely a representation of what costs might be using the WSP methodology and adjusting assumptions for the above activities for a more typical approach in Michigan. There are many assumptions related to sediment volumes and quality included in the WSP cost estimates that have not been confirmed by field investigation, so these cost estimates should be viewed as a planning tool only. More refined cost estimates benefiting from

more detailed engineering studies would better estimate expected project costs.

- Rogers – WSP: $76,498,483 Adjusted: $27,752,972
- Hardy – WSP: $299,444,981 Adjusted: $156,694,193
- Croton – WSP: $151,111,087 Adjusted: $60,317,983
- Hodenpyl – WSP: $191,415,386 Adjusted: $79,402,442
- Tippy – WSP: $96,250,027 Adjusted: $60,985,431
- Mio – WSP: $81,503,287 Adjusted: $47,930,208
- Alcona – WSP: $79,721,125 Adjusted: $42,752,558
- Loud – WSP: $47,076,887 Adjusted: $36,621,583
- Five Channels – WSP: $39,588,475 Adjusted: $30,846,575
- Cooke – WSP: $103,331,544 Adjusted: $65,755,133
- Foote – WSP: $121,584,277 Adjusted: $114,529,625
- Calkins Bridge – WSP: $196,048,542 Adjusted: $180,952,129
- Webber– WSP: $58,637,855 Adjusted: $33,250,526

WSP $1,531,657,020 Adjusted:$937,791,357 Difference: $593,865,663

Q. Does this conclude your direct testimony?

A. Yes.

PROOF OF SERVICE - U-21985

The undersigned certifies that a copy of the ***DNR's public Revised Testimony*** was served upon the parties listed below by e-mailing the same to them at their respective e-mail addresses on the 25th day of March 2026.

/s/ Nathan Gambill

Nathan Gambill

Consumers Energy Co.:
Bret Totoraitis
Evan Keimach
Bret.totoraitis@cmsenergy.com
Evan.keimach@cmsenergy.com
Kelly.hall@cmsenergy.com
Mpsc.filings@cmsenergy.com

ALJ:
Hon. James Varchetti
varchettij@michigan.gov

Attorney General of Michigan:
Celeste Gill
Gillc1@michigan.gov
ag-enra-spec-lit@michigan.gov

Sebastian Coppola
sebcoppola@corplytics.com

DNR:
Nathan Gambill
Hadley Tuthill
gambilln@michigan.gov
tuthillh@michigan.gov

MPSC Staff:
Amit Singh
Daniel Sonneveldt
Adam Cozort
Singha9@michigan.gov
sonneveldtd@michigan.gov
cozorta1@michigan.gov

MEC:
Christopher Bzdok
Natasha Fowles
chris@tropospherelegal.com
natasha@tropospherelegal.com

ABATE:
Stephen Campbell
Michael Pattwell
scampbell@clarkhill.com
mpattwell@clarkhill.com

ELPC:
Daniel Abrams
Katherine Duckworth
Bradley Klein
Howard Learner
dabrams@elpc.org
kduckworth@elpc.org
bklein@elpc.org
hlearner@elpc.org

Confluence Hydro:
Timothy Lundgren
Justin Ooms
Laura Chappelle
Haylee Skank
tjlundgren@varnumlaw.com
jkooms@varnumlaw.com
lachappelle@varnumlaw.com
hnskank@varnumlaw.com

Grand Traverse Band:
William Rastetter
bill@envlaw.com
karla@envlaw.com

Lake Allegan Association:
Caroline Soodek
Jennifer Heston
coco@seasongoodlaw.com
jheston@potomaclaw.com

Croton Township:
Michael Watza
Nathan Inks
Clifford Bloom
Tonya Voakes
mike@bloomsluggett.com
nathan@bloomsluggett.com
cliff@bloomsluggett.com
tonya@bloomsluggett.com

Anglers of Au Sable:
Scott Steiner
sjsteiner21@gmail.com