Consumers Energy Hydro Strategy
Alcona Dam
Community Conversation

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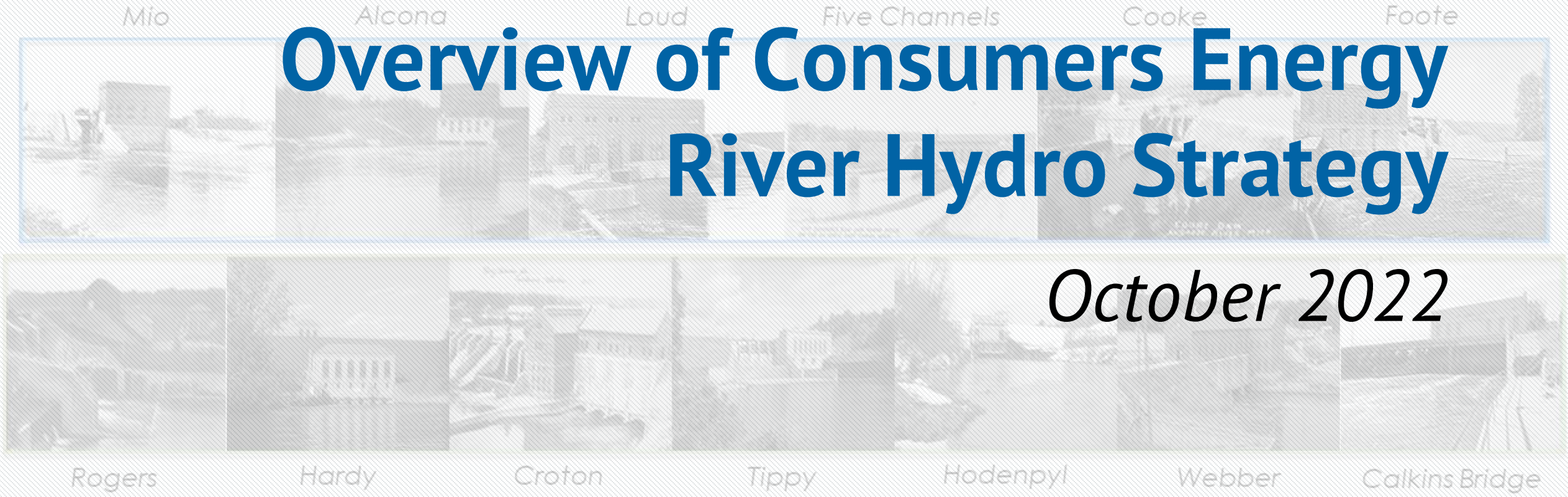
Conversation Objectives

- **Share information** about the development of Consumers Energy's long-term hydro strategy
- **Gain community-wide understanding** about the process and future scenarios
- **Gather input** on community factors that should be accounted for in the strategy



Overview of Consumers Energy River Hydro Strategy

October 2022

Consumers Energy
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CE River Hydro History

Owned more than 90 river hydro assets

Typically, small multiple-use assets that supported a local community

Generation advances and exhaustion of prudent locations stopped expansion

70+ assets sold or retired between 1940 and 1970 due to asset value (*customer value vs. cost*)

River Hydro Fleet Details

Dam	Capacity (MWs)	Average MW/day	Plant Commissioned	FERC License Expiration Date
Rogers	6.75	2.66	1906	6/30/2034
Hardy	31.5	11.87	1931	6/30/2034
Croton	8.85	3.79	1907	6/30/2034
Hodenpyl	17	5.57	1925	6/30/2034
Tippy	20.1	7.13	1918	6/30/2034
Calkins Bridge	2.55	1.52	1935	3/31/2040
Webber	3.25	1.3	1907	5/31/2041
Mio	5	1.74	1916	6/30/2034
Alcona	8	3.29	1924	6/30/2034
Loud	4	2.08	1913	6/30/2034
Five Channels	6	2.79	1912	6/30/2034
Cooke	9	3.15	1911	6/30/2034
Foote	9	3.51	1918	6/30/2034
Total:	**131**	**50**	**About 1% of CE Total Generation**	

Regulatory Agencies

- Michigan Public Service Commission
- Federal Energy Regulatory Commission (FERC)
  - Division of Hydropower Administrative and Compliance (DHAC)
    - Michigan Department of Environment, Great Lakes, and Energy (EGLE)
    - Michigan Department of Natural Resources (DNR)
    - U.S. Fish and Wildlife Service
    - U.S. Forest Service
    - Michigan Hydro Relicensing Coalition
  - Division of Dam Safety and Inspections

Detailed Review

- Safety
- Complying with regulations
- Cost of operation
- Environment
- Community
- Recreation

Hydroelectric facilities

Safety

- Satisfactory Condition with FERC
- FERC Inspections
- Owner's Dam Safety Program
- Public Safety

Complying with Regulations

- Division of Hydropower Administration and Compliance
- FERC Licensing Process
  - Integrated Licensing Plan
- Dam Safety and Inspections
  - Updated Regulations in 2022

Cost of Operation (Fleet)

Benefit of CE River Hydros:

Total average value = $12.9M/year

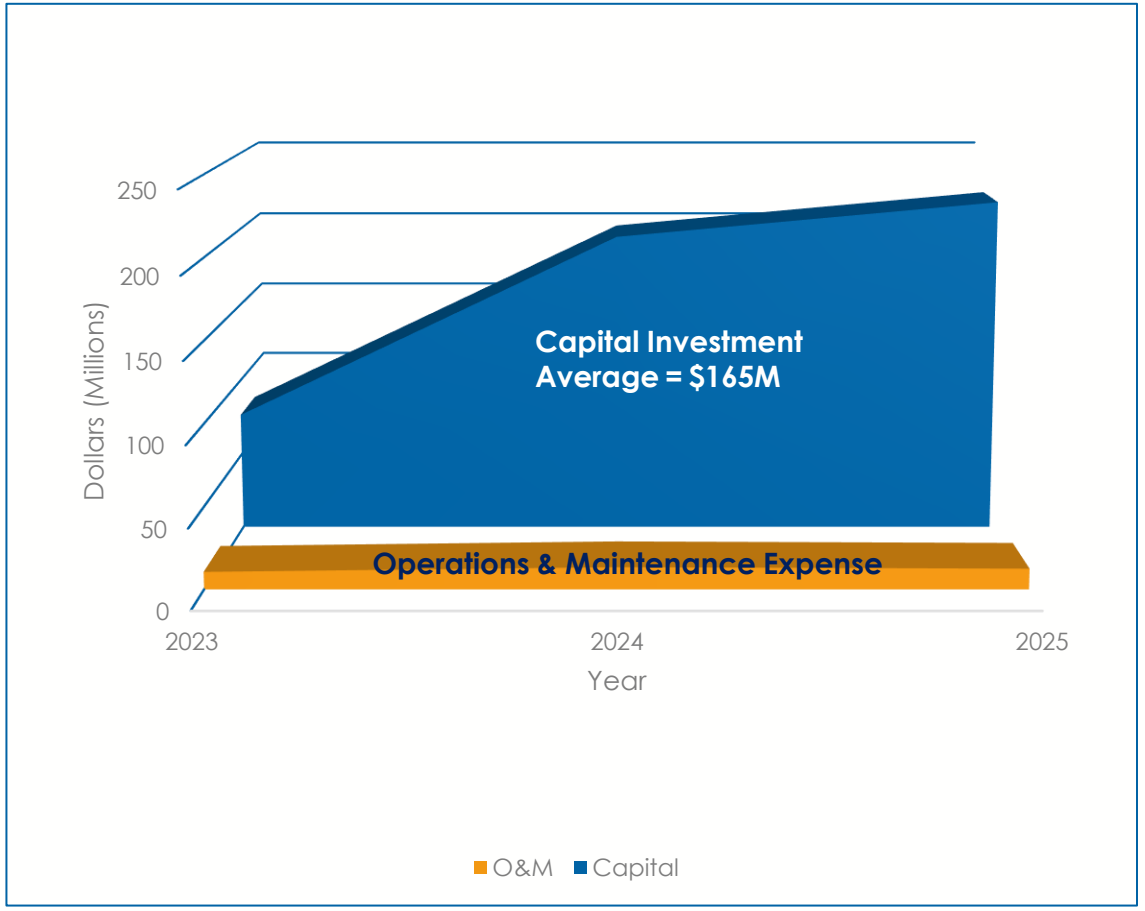
Cost of River Hydros:

Operations and maintenance = $12.6M/year

- Funding for internal/external labor to operate and maintain equipment.

Capital investments = $165.0M/year

- Major projects i.e.: replacement of spillway, new generators, new spill gates, new splash wall, or new wicket gates



Alcona Dam Cost

	Actual O&M Costs 2017-2021	Forecasted O&M Costs 2023-2027	Actual Capital Costs 2017-2021	Forecasted Capital Costs 2023-2027
Alcona Dam	$3.66M	$4.20M	$10.93M	$46.61M

Auxiliary Spillway Project Forecast (2023-2028): $37.7M
Corewall Project Forecast (2023): $4.0M

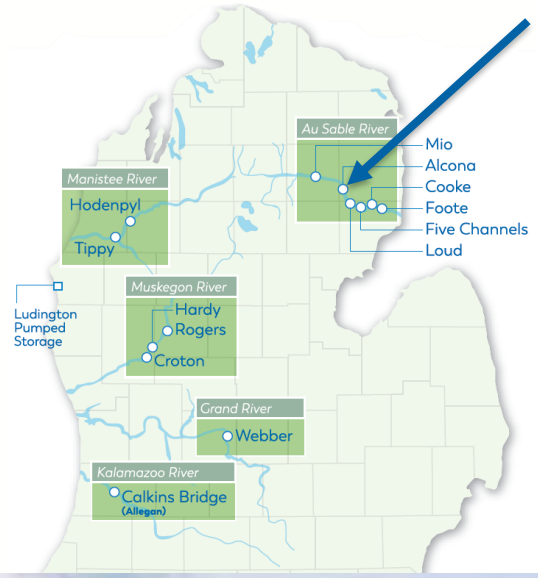
Alcona Avg O&M: $786k

Alcona Avg Value: $841.8k of the $12.9M (fleet)

*All forecasts are subject to change or shift

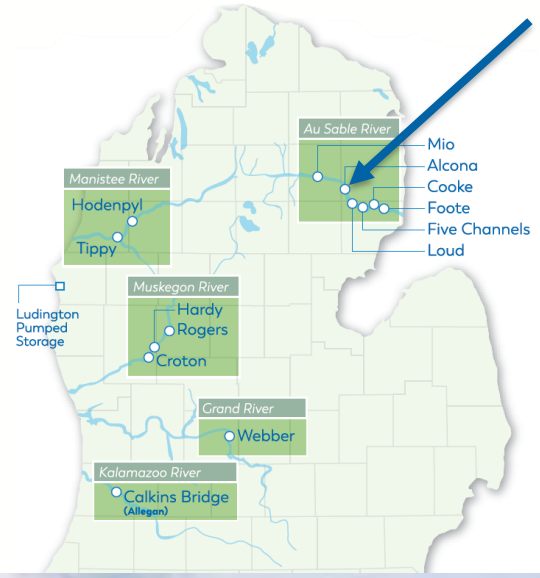
Environment

- River Sediment
- Water Quality
- Not a downstream barrier (invasive species)



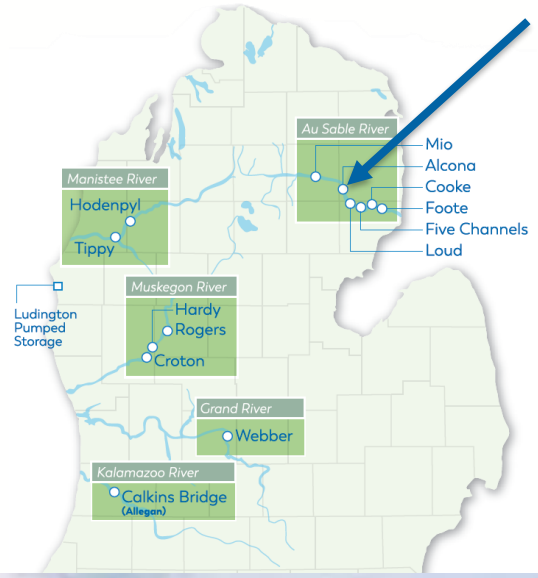
Community

- AuSable River Canoe Marathon
- Originally called Bamfield Dam
- Popular canoe livery drop off and pick up site
- Here to listen and learn



Recreation

- Approximately 86K annual recreational visitors
- 2 Boat Launches
- 1 Fishing Pier
- 2 Campgrounds



Future Scenarios

- Relicense the dam, meeting all the new regulatory requirements, and continue to generate power
- Surrender the license and sell the dam to a third-party owner, who could maintain the dam structure and impoundment
- Remove the dam and return the river to its natural state
- Replace the dam with an alternative structure

Relicensing—Integrated Licensing Process

- Relicensing is handled through FERC and takes approximately five years
- The process involves the general public, nongovernmental organizations, tribal, state, federal, and local government input
- The applicant needs to demonstrate how it will address—either through mitigation, protection, or enhancement projects—the resources surrounding the dam and the dam itself
- Examples of issues the applicant will need to study are:
  - Water quality and other environmental issues
  - Fish and wildlife
  - Cultural
  - Recreation
  - Aesthetics
  - Land use
  - Tribal resources

Surrendering the FERC License

- Consumers may choose to no longer generate power and not relicense the facility. This process would require them to file a request with FERC to surrender their license
- Without power generation, Consumers could look to alternative options for the dam:
  - Transfer ownership of the dam to a different party
  - Remove the dam and restore the natural flow of the river
  - Replace the dam with an alternative structure
- All of these options involve significant input and sign off from many regulatory agencies

Removal of a Dam

- The process for removing a dam is regulated by state and federal agencies. When considering a dam removal, the applicant and regulators consider:
  - **Benefits of the dam and the impoundment** (preventing the movement of aquatic invasives, sediment control, historical significance, transportation uses, water supply, flood control, recreational boating, fishing, swimming, etc.)
  - **Concerns with the dam** (safety and security, costs and liabilities of keeping the dam, environmental and ecological impacts, impediments to fish and other species movement, etc.)
  - **Engineering and design considerations** for the removal of the dam itself and the rehabilitation of the ecosystem
  - **Property rights** and bottomland ownership issues
  - **Costs and potential funding sources** for the removal

Transferring Ownership

- Example: Four Lakes Task Force—four dams located on the Tittabawassee River in Midland and Gladwin Counties
- Ownership was transferred from a private party to the Four Lakes Task Force, which oversees the Special Assessment District (SAD) on behalf of the counties
- Counties established a SAD to allow for the property owners located on the impoundments to pay an operations and capital improvements assessments for the purpose of maintaining legally established lake levels
- Process involved FERC, EGLE, and local county officials

Replacing the Dam

- When a full removal of the dam does not meet the needs of the community, regulators, and/or dam owners, dams sometimes can be replaced with an in-river structure. These options may include:
  - Modifications to the current dam
  - Replacing the dam with a different dam structure (e.g., low-head dam)
  - Rock structure

Engagement Process and Plan Development Timeline

- August–October 2022: Pre-strategy development community engagement
  - Community meetings around each dam
  - Website launched
  - Survey of property owners located within 100 feet of Consumers' property lines
- 2023: Long-term hydro strategy is developed
- 2023–2034: Relicensing and/or retiring process underway, including community engagement

Community Input

Community Input

What does Consumers Energy need to understand about this community's relationship to the Au Sable River, and to the dam and its impoundment?

Community Input

Does it matter to you whether Consumers Energy is the dam owner and operator? Why?

Community Input

Regardless of the outcome, what would Consumers Energy need to provide to your community to make you feel their decision was prudent and your input was incorporated?

For more information, please visit
www.consumersenergy.com/hydrofuture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