Project Title: Multi-Functional Industrially Integrated Hydro Power System



- Purpose: To win the Hydro Prize Competition sponsored by the United States Department of Energy.
- Problem: According to the Army Corps of Engineers, approximately 85% of the inventory of Dams within the United States are now older than their average life expectancy of 50 years.
- Challenge: The current inventory of hydro power systems within the United States either operate at an inefficient state or are in extreme need of extensive repair or reconstruction to maintain sustainable operations.
- Solution: The advanced manufacturing solution will improve the state of the art, by maximizing all resources, both from the construction and operational perspective, to increase performance, structural integrity, and economic value for all hydro power systems and stakeholders.

## Team: Francis Hydro Electric



- Results: The proposed solution provides an overall minimum cost reduction of at least 10-20% in both, the construction, and continued operations of new/updated hydro power systems.
- Outcomes: Support California with the necessary infrastructure to mitigate against the destructive wildfires and continued droughts.
- Support: Provide Michigan with newly created hydro power systems that will significantly increase economic value.

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