



## HydroDynamyk turbine/generator upgrade system with control suite, for increasing hydropower plant flexibility

\$3.08 million collaborative award with U.S. Department of Energy Water Power Technologies Office (DE-EE0002417)

Timetable: selected for award June 2022

Principal Investigator: D. Duquette

Summary: This project aims to design, build, and field test a rapidly deployable upgrade system for existing hydropower plants. The system consists of a novel pump-turbine that can be added to existing dams that, along with associated controls and software, will enhance a plant's ability to adjust electrical output while decreasing wear and tear on equipment.

### Team members:

- LPS
- Penn State University Applied Research Laboratory
- Electric Power Research Institute
- American Electric Power
- Hydro Performance Processes Inc.
- McCullough Consulting LLC
- Norm Bishop Consulting LLC
- Clear Energy Hydro
- HydroDyne Energy

