

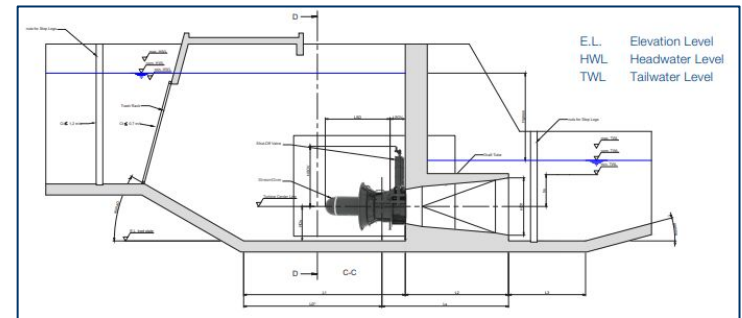
# NAU HydroJacks Hydropower: Renewable Energy



# Background of Competition

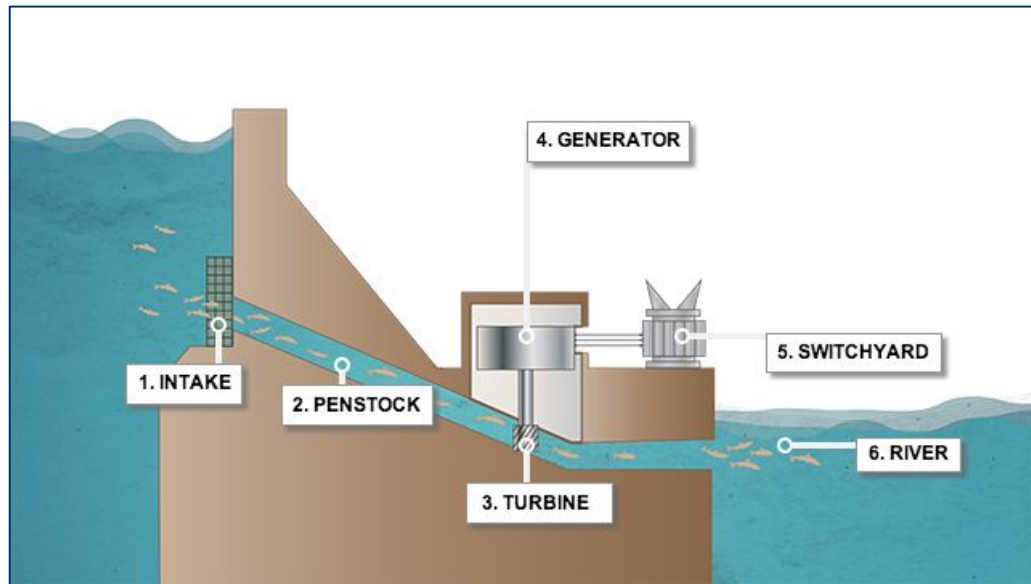
## Goals

- **Siting Challenge** - Perform a hydropower site selection process for a potential NPD with a generation capacity between 1 MW and 10 MW.
- **Design Challenge** - Choose between a conceptual facility design, or a component deep dive.
- **Community Connections** - Engage with with professionals and develop unique solutions to address challenges. Engage with the community to create interest in the STEM field.
- **Build and Test (Optional)** - Build and test a scaled prototype.



# What is Hydropower?

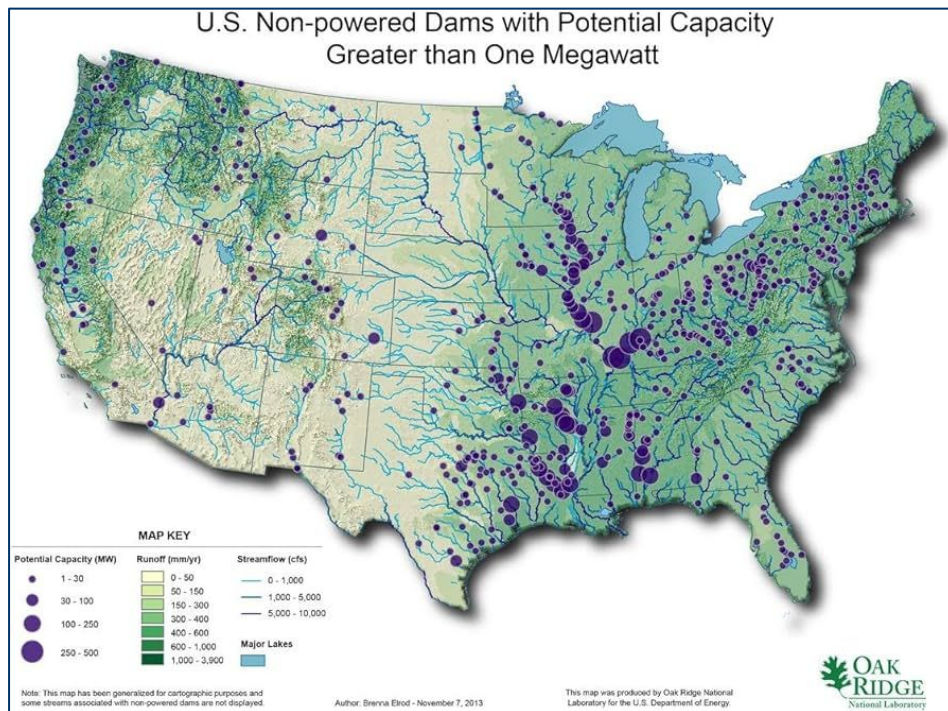
- Have you heard of hydropower before today?
- Dams are used for flood control, water supply, and recreational uses.
- Some dams are used for hydropower generation.
- Hydropower uses flowing water to make electricity. When water is released from a dam water rushes out, spins turbines, and those turbines spin a generator which creates electricity.



# Why it Matters

## A Key Renewable Energy Source

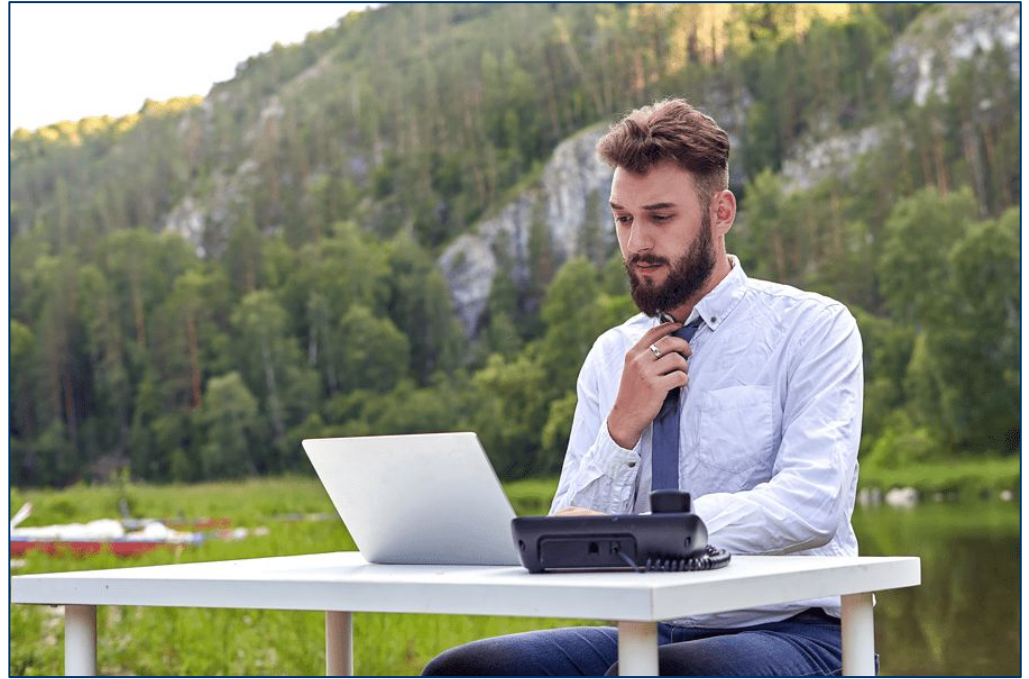
- Reliable and consistent power
- Low emissions
- Existing infrastructure
- 80,000+ dams in the U.S.
- Most don't generate power



# Careers in Hydropower!!!

## Engineering Opportunities

- Mechanical - turbines & systems
- Electrical - generators & grid
- Civil - dams & structures
- Environmental - ecosystems & fish passage
- Project management
  
- Would you consider a career in renewable energy?
  - **Solar / Wind / Hydro**



# Quick Questions

Before you go... :(

- Do you feel you understand hydropower better now?
- Would you like to learn more about hydropower?
  - **Follow our instagram**



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**THANK YOU!**  
**Questions?**