As a facility or turbine operator/manager, we request your input to better help understand the biggest obstacles to the adoption of environmentally acceptable lubricants/ oils (EAL’s) as replacement for petroleum-derived turbine oils including Kaplan turbines.

The purpose of this effort is to assess the willingness and readiness of hydropower operators to adopt EAL turbine oils in place of existing petroleum-based turbine oils. EAL qualification requires the oil to be biodegradable, non-toxic, and non-bioaccumulating. At present, performance expectations, maintenance requirements, and cost/purchasing schedules that might influence EAL adoption are not clearly understood by lubricant manufacturers. This survey will highlight the needs and desires of turbine manufacturers, facility operators and managers so that lubricant manufacturers develop and produce EAL turbine oils that meet the requirements of hydropower industry.

We intend to make the aggregated responses available to the hydropower industry without attribution to individual responders.

**Q1**

Have you previously used or are you currently using an EAL turbine oil in your facility? If so, please provide the following information:

* What is/was the primary reason to use EALs?
* Why was this type/brand selected?

**Q2**

Has the EAL turbine oil negatively affected performance? If yes please provide as much detail as possible. Note that we do not intend to include the names of EAL manufacturers in the aggregated responses.

**Q3**

What volume of oil is needed for each unit/facility? Please provide as much detail as possible for the EAL researchers to target adequate EAL production on a timely basis.

For example, how much oil is needed for each unit and the desired replacement frequency:

* <1000 gal.
* 1000-5000 gal.
* >5000 gal.

**Q4**

Are you aware of any commercially available turbine oils? If yes, please provide the relevant manufacturer(s) information.

**Q5**

If you are not currently using an EAL, what is the primary factor that is keeping you from switching to an EAL?

* Price
* Performance
* Availability
* Perceived Risk
* Other (Please Specify)