

PUBLIC POWER BENEFIT

UPDATE • **HYDRO RESEARCH**

MARCH 19, 2018



CHELAN COUNTY

Information Only
Approval Consideration 4/16/18

Topics

- » Current status update on approved funding
- » Conclusions thus far
- » Recommended path forward



SUMMARY

Funding Already Approved

	2015-2016 PPB	2017 PPB	2018 PPB
PROJECT 1 Data Analytics Platform	\$200,000		
PROJECT 2 Sensor Technology Development	\$50,000		\$150,000
PROJECT 3 RR Turbine - Generator Model		\$250,000	\$100,000
Total Approved	\$250,000	\$250,000	\$250,000
Total Spent as of Feb 2018	\$202,700	\$190,650	\$0

Conclusions Thus Far

The concept of aggregating data is valuable

Others are willing to contribute funds

There is an interest in this concept from:

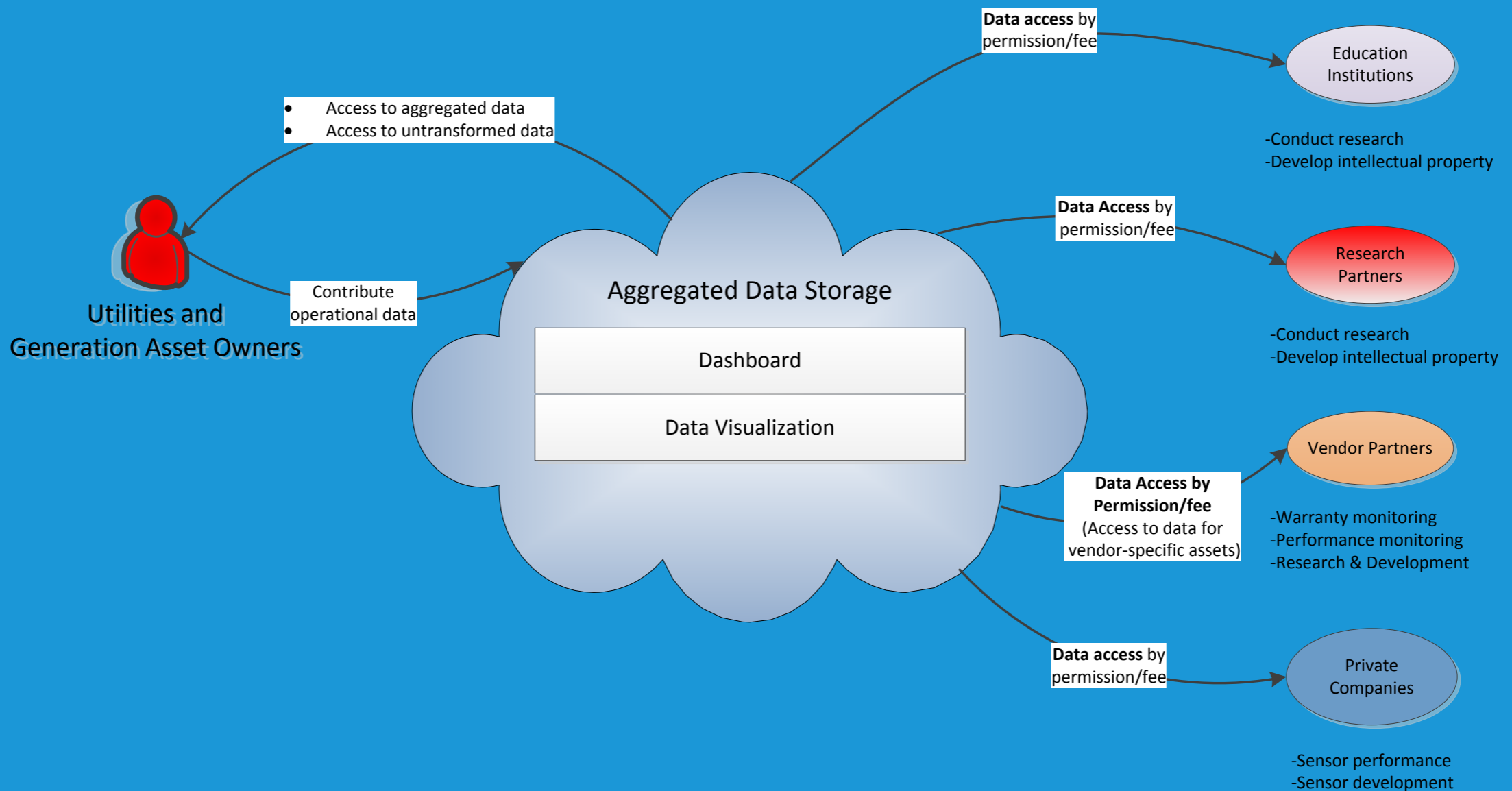
- » Hydropower owners
- » Manufacturers
- » National Labs
- » Colleges and Universities

There is an interest regionally in research collaboration between Agriculture, Hydropower, Healthcare, and Technology industries

Hydropower Research Institute

Hydropower Research Institute Members

Hydropower Research Institute Subscribers



Potential Application

Reduce forced outages

Benchmarking

Improve O&M practices

Improve predictive capabilities

Perform research

Develop new sensors and monitoring equipment

Improve quality and contract terms

Recommended next steps

1. Incorporate Institute as a nonprofit corporation in Chelan County
2. Develop articles of incorporation, by-laws, operation plan, and select contract operator between now and August
3. Reallocate \$200,000 from sensor technology development to the Institute formation. Allocate an additional \$300,000 from unallocated PPB funds for the incorporation effort and begin contract operations.
4. Solicit additional hydropower owner membership and subscribers
5. Begin aggregating operational data by the end of the year with US Army Corps of Engineers and Southern Company

A wide-angle photograph of a large dam with multiple spillways. Water is cascading down the spillways, creating white foam. In the background, a wide river flows through a valley, with rolling hills and mountains under a clear sky. Several high-voltage power line towers are visible in the river. The word "QUESTIONS?" is overlaid in large white letters across the center of the image.

QUESTIONS?