Columbia Vista Short Term Replacement

This investment will replace short-term and real time hydro modeling capabilities. Some of the issues with the current system are:

- It’s slow. A hundred-fold increase in speed is needed with an increase in the resolution of the results as well.
- The optimization engine does not deal well with uncertainty.
- The vendor relationship is strained. There is little confidence in the vendor’s ability to address the shortcomings of the current system.

Short Term Planning and Real Time Operations need the ability to make timely changes to the model inputs and conduct model runs which can quickly produce feasible and stable results for planning operations, determining inventory, and assessing capacity. Feasible and stable model results are essential to assure that the federal hydro system is meeting all obligations and constraints for the current hour and will continue to be able to meet those obligations for the near future. In addition, Short Term Planning needs the ability to run multiple scenarios and develop probabilistic views of FCRPS which will enable BPA to quantify and capture the most value out of FCRPS system flexibility, make risk informed decisions about operational and marketing strategies, measure the likelihood of meeting all of BPA’s non-power hydro constraints, and measure the likelihood of not meeting power obligations. In addition to replacing the modeling tools, this investment also includes a new database which is necessary to meet the uptime requirements of the data involved and to support the interaction of the multiple systems.