

Staff Report

for the Administrative Practices Committee Meeting of March 3, 2020

TO: Water and Hydroelectric Operations Committee

FROM: Keane Sommers, P.E., Hydroelectric Manager
Phil Nedved, Maintenance Superintendent

DATE: February 25, 2020

SUBJECT: Hydroelectric Department Training Request

HYDROELECTRIC

RECOMMENDATION:

Review and discuss Hydroelectric Department Training needs and advance a recommendation to the Board of Directors as appropriate.

BACKGROUND:

Hydroelectric Department Systems Technicians and Machinists are responsible for the maintenance of high-risk Nevada Irrigation District assets, including seven powerhouses, three flume systems, and more than a dozen dams that supply water from the upper-division to the water distribution system. This staff report includes a training request for two separate trainings. Per Board Policy 2175.2 training expenses in excess of \$3,000, including all meals, transportation, lodging, and training costs, require prior approval of the Board of Directors.

Hydroelectric System Technician

As part of modernizing the control systems to achieve greater reliability and safety, smart transmitters are replacing instrumentation that is obsolete and less reliable. Having well-trained staff ensures that the assets are programmed and maintained by professionals that are capable of performing their duties to the highest standard possible, minimizing the risk to the public.

The El Dorado Irrigation District is sponsoring a local class by the International Society of Automation (ISA) and has offered the District a seat. The class offered provides a level of knowledge that meets industry standards and ensures that District staff is able to respond to situations as they arise during their normal job duties.

Hydroelectric Machinist

The District utilizes mechanical governors to control powerhouse speed and output at several locations. Proper governor operation is critical to powerhouse function. American Governor is offering a focused class on the type of governor the district uses in Amherst, Wisconsin. This Woodward Mechanical Cabinet Actuator Focus Class provides in-depth, hands-on training on the following topics:

- Flyball Assembly
- Dashpot and Dashpot Bypass
- Pilot Valve Assembly
- Restoring Links and Levers
- Permanent Magnet Generator
- Auxiliary Speed Switches
- XX Herringbone Gear Pump
- Screw-type Pump

Training staff on the calibration and function of this equipment will save money over time. In 2019 the District spent \$11,265 in consulting to troubleshoot a problem with the governor at the Dutch Flat 2 Powerhouse.

These trainings support Goal Numbers 1 and 4 of the District's Strategic Plan by ensuring the resilient and sustainable operation of our systems and educates staff to continue to look for processes and technologies that will allow us to operate at peak efficiency.

BUDGETARY IMPACT:

The 2020 Hydroelectric Maintenance Department budget includes \$35,000 for training. The Hydroelectric System Technician training is expected to cost \$4,000, and the training for the Hydroelectric Machinist is expected to cost approximately \$6,000, including applicable taxes, fuel, and toll charges. To date, no items have been recorded against this budget. Following this expenditure, approximately \$25,000 will remain in the budget item.

KSS