



Staff Report

TO: Board of Directors

FROM: Keane Sommers, P.E., Hydroelectric Manager
Nathan Droivold, E.I.T., Project Manager
Kaylie Hague, Hydroelectric Compliance Technician I

DATE: October 27, 2021

SUBJECT: Rollins Relay Protection Improvements (Project #2394) (Consent)

HYDROELECTRIC

RECOMMENDATION:

Award a contract in the amount of \$162,000 with GS Engineering for design services for the Rollins Powerhouse Relay Protection Upgrade Project (Project), and authorize the General Manager to execute the appropriate documents.

BACKGROUND:

Rollins Powerhouse (RPH) was constructed in the 1980's and is a 12.15 MW plant located on the Bear River below Rollins Reservoir. NID owns and operates RPH under conditions of a Small Generator Interconnection Agreement (SGIA) with Pacific Gas & Electric (PG&E), and design approval will be subject to coordination with PG&E during project progression.

The existing relay protection scheme at RPH is mostly original (1980's vintage) and is outdated. Many existing relays are electro-mechanical type and in need of replacement. Due to their age, the existing relays are difficult to calibrate and are essentially unserviceable. In addition, the existing relays do not provide diagnostic information that could be collected by the future Balance of Plant Programmable Logic Controller that will be installed in 2021.

NID desires to upgrade the existing protection scheme with new multifunction relays to provide improved protection of critical powerhouse systems, reduce the quantity of equipment needed on-site, and improve plant efficiency. Furthermore, new relays would allow District staff to digitally program relay setting changes with ease, which is currently a time-consuming and difficult task.

The Project will provide improved high voltage protection for critical powerhouse systems, including the generator, generator step-up (GSU) transformer, transmission line, and station service equipment. Overall, the upgrade reduces annual operation and maintenance costs, reduces the risk of generation loss, and improves the level of service provided by the District.

A Request for Proposals (RFP) was distributed to 10 prospective bidders on August 16, 2021. Five firms submitted proposals for the Project to the District on September 17, 2021. Received bids were evaluated by District staff using criteria established in the RFP. This criteria was weighted 30% by the firm's approach and scope of work, 30% by their cost of services, and 40% by the experience and qualifications of the Firm and their project team. GS Engineering was selected based on criteria cost of services and experience. A summary of the bid results are shown below.

Ranking	Firm	Proposed Cost
1	GS Engineering	\$162,000
2	Mesa	\$213,704
3	Gannett Fleming	\$399,591
4	Black & Veatch	\$311,010
5	HDR	\$404,245

Staff recommends awarding a Consultant Service Agreement in the amount of \$162,000 to GS Engineering.

This item is in alignment with Goal No. 1 of the District's Strategic Plan, as completion of the Project will provide the District with a modern protection system that continues the resilient and sustainable operation of RPH.

BUDGETARY IMPACT:

The 2021 Hydroelectric Department Budget includes \$150,000 for the Project. To date, none of the 2021 Project budget has been spent, and an additional \$12,000 from the Powerhouse Improvement Program Budget will be used to cover the cost of this contract. In 2022, the Project will move into its procurement and installation phases. It is estimated that the remaining project costs will be approximately \$250,000.

Attachments: (None)

KH