SOUTH FEATHER WATER & POWER AGENCY

AGENDA

Regular Meeting of the Board of Directors of the
South Feather Water & Power Agency
Board Room, 2310 Oro-Quincy Highway, Oroville, California
Tuesday; September 26, 2023; 2:00 P.M.

Remote participation is available via Zoom by logging into:
https://us02web.zoom.us/j/82340086325
Meeting ID: 823 4008 6325
One tap mobile
+16699006833,,82340086325# US (San Jose)
+16694449171,,82340086325# US
For attendees calling by phone use *9 to raise hand

A. Roll Call

B. Approval of Minutes *(Tab 1)*

C. Approval of Checks/Warrants *(Tab 2)*

D. Business Items

Water Rates Technical Consulting Services Proposal. (Tab 3)
Requesting approval to issue a notice to proceed to one of three candidates who submitted proposals for water rate analysis services.

Gannett Fleming Security / Vulnerability Assessment and Security Plan Updates (Tab 4)
Recommended approval for a change order to the previously approved scope of work at the March 23, 2023 regular board meeting.

Miners Ranch Canal Panel Repair (Tab 5)
Seeking approval to execute the Demolition and Reconstruction of panels 208-212.

Sly Creek Powerhouse Governor (Tab 6)
Requesting approval for Governor Control System Replacement.

E. Information Item

Water Distribution Optimization Study (Tab 7)
Presentation by Advisian Principal Engineer, Surface Water Engineering, Americas.

F. *Staff Reports* *(Tab 8)*

G. Public Comment – *Public comment for Directors can be submitted anytime via e-mail. However, in order to be read into the record during the meeting it must be submitted to PublicRelations@southfeather.com by 12:00 P.M. Tuesday September 26 , 2023. Individuals will be given an opportunity to address the Board regarding matters within the Agency's jurisdiction that are not scheduled on the agenda, although the Board cannot take action on any matter not on the agenda. Comments will be limited to 5 minutes per speaker. An opportunity for comments on agenda items will be provided at the time they are discussed by the Board. Comments will be limited to five minutes per speaker per agenda item.*

H. Directors' Reports

Directors may make brief announcements or reports for the purpose of providing information to the public or staff, or to schedule a matter for a future meeting. The Board cannot take action on any matter not on the agenda and will refrain from entering into discussion that would constitute action, direction or policy, until the matter is placed on the agenda of a properly publicized and convened Board meeting.

I. Closed Session *(Tab 9)*

Conference with Labor Negotiator (Government Code §54957.6(a)):
Agency-designated representatives: Rath Moseley.
Employee Organizations: IBEW 1245, Hydro Generation Employees Unit Annual Opener

Conference with Real Property Negotiators (Government Code 54956.8):
Property: APN 072-050-026 (property adjoining Miner's Ranch Reservoir and Dam)
Agency Negotiator: Rath Moseley, General Manager, and Minasian Law, District Counsel
Negotiating Parties: Donald M. Toney Trustee to Babette H. Toney
Under Negotiation: $250K , 2.5% listing agent fee

Conference with Legal Counsel – Existing Litigation
(Paragraph (1) of subdivision (d) of Government Code section 54956.9

A. Name of Case: North Yuba Water District v. South Feather Water & Power Agency et al., Sutter County Superior Court Case No. CVCS21-0001857
B. Name of Case: South Feather Water & Power Agency v. North Yuba Water District et al., Sutter County Superior Court Case No. CVCS21-0002073

J. Open Session

K. Adjournment

The Board of Directors is committed to making its meetings accessible to all citizens.
Any persons requiring special accommodation to participate should contact the Agency's secretary at 530-533-2412, preferably at least 48 hours in advance of the meeting.

MINUTES of the REGULAR MEETING of the BOARD of DIRECTORS of SOUTH FEATHER WATER & POWER AGENCY

Tuesday, August 22, 2023, 2:00 P.M.,
Agency Board Room, 2310 Oro-Quincy Hwy., Oroville, California

DIRECTORS PRESENT (In Person): Rick Wulbern, John Starr, Brad Hemstalk, Ruth Duncan, Mark Grover

DIRECTORS ABSENT: None

STAFF PRESENT (In Person): Rath Moseley, General Manager; Cheri Richter, Finance Manager; Dustin Cooper, General Counsel; John Shipman, Water Treatment Superintendent; Jaymie Perrin Operations Support Manager

STAFF PRESENT (By Zoom): None

OTHERS PRESENT (Via Zoom): Gretchen Flohr

OTHERS PRESENT (In Person): Ron Fink, Alton Wright, Leona Harris, Marieke Furnee, Roger Bailey, Charles Sharp, Toni Reid

CALL TO ORDER
President Wulbern called the meeting to order at 2:02 p.m. and led the Pledge of Allegiance.

APPROVAL OF MINUTES
M/S: (Grover/Hemstalk) approving the Minutes of the Regular Meeting of July 25, 2023.
Ayes: Starr, Duncan, Wulbern
Public Comment: Roger Bailey made a comment about Tod Hickman's communication.

APPROVAL OF CHECKS AND WARRANTS
M/S (Wulbern/Starr)
Ayes: Duncan, Grover, Hemstalk
Approving the total General Fund and Joint Facilities operating fund expenditures for the month of July 2023 in the amount of $3,636,950.94 and authorize the transfer of $2,500,000.00 from the TCB General Fund to the TCB Accounts Payable and Payroll Fund for the payment of regular operating expenses.

BUSINESS ITEMS

Rules and Regulations – Part C Compliance with Agency Rules
Approval to increase meter tampering fees as published in agency rules and regulations.
After discussion of options a motion to approve First Incident $200, Second $500 and third, meter removed.
M/S (Grover/Duncan)
Ayes: Starr, Wulbern
NO's: Hemstalk

Gannett Fleming Security / Vulnerability Assessment and Security Plan Updates
Discussion and potential approval for cost-of-service change order to the previously approved scope of work at the March 23, 2023 regular board meeting.
This item was tabled until more analysis is performed on the change order and requirements.

No Action taken: Duncan, Wulbern, Starr, Grover, Hemstalk

FINANCE MANAGER'S REPORT
The Finance Manager communicated the following:

CalPERS Health Plan Premiums
Open Enrollment for the 2024 health plans will be held from September 18 through October 13, 2023. The same four plans available to employees in 2023 will again be available in 2024. The CalPERS Board of Administration approved a premium increase, for calendar year 2024, at an overall premium increase of 10.77%. CalPERS' Basic Health Maintenance Organization (HMO) plans will have an average premium increase of 10.50%. Preferred Provider Organization (PPO) plans will have an average increase of 12.17%. Medicare plans will rise 9.55% overall. Beginning September 11, premiums will be made available for specific zip codes, and members can find Open Enrollment information on the CalPERS website. Updated health plan premiums, specific to SFWPA will be distributed to employees before Open Enrollment begins.

CalPERS Actuarial Valuation
The CalPERS actuarial valuations setting retirement contribution rates for July 1, 2024 through June 30, 2025 have been released. The Agency's employer contribution rate for its Classic employees will be 16.51%, an increase from the 2023-24 rate of 16.44%. The PEPRA employer contribution rate (applies to employees entering the CalPERS system after January 1, 2013) will be 7.87%, an increase from the 2023-24 rate of 7.68%. For Classic employees, the member contribution rate is 8% and for PEPRA employees, the member contribution rate will remain at 7.75%.

CalPERS Investment Return
CalPERS has announced a preliminary investment return of 5.8% for the 2022-23 fiscal year. With the CalPERS discount rate set at 6.8% and this year's preliminary return of 5.8%, the estimated overall funded status stands at 72%. For the previous fiscal year, the CalPERS investment return was -6.1%.

2024 Budget Calendar
A preliminary budget calendar leading to adoption of a 2024 annual budget was provided. A finance committee meeting is tentatively scheduled for Thursday, November 9 allowing for a presentation to the full Board at its regularly scheduled November 28 meeting.

POWER DIVISION MANAGER'S REPORT
The Power Division Manager communicated the following:

South Fork Div tunnel average flow was 67 CFS. Slate Creek Div tunnel was open for 12 days. Little Grass Valley and Sly Creek Reservoirs combined storage was 129 kAF at month's end. No reservoirs are currently spilling.

SFWPA operates and maintains the South Feather Power Project reservoirs as specified and defined by FERC and DSOD Dam Safety compliance parameters, and FERC license recreational requirements. All Project reservoirs will fluctuate in water storage and water levels throughout the year. Specifically, variations in reservoir storage and level will occur based upon any of the following:

- Performing maintenance and repairs on reservoirs and dam structures
- Hydrology water year type variations
- Precipitation and weather pattern variations
- Storage management based on recreation purposes and uses
- Storage change based on water block transfers and sales
- Storage change due to powerhouse operation and dispatch schedules

Table B in this report contains Little Grass Valley Reservoir and Sly Creek Reservoir storage and level data, and historical information.

DWR Bulletin 120 observed precipitation conditions and reports will resume in the 2024 water season.

MAINTENANCE

Powerhouses

- Woodleaf Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for February 2024.
- Forbestown Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for March 2024.
- Sly Creek Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for October 2 thru 21, 2023. Unit trip on cooling water low flow device. Recoating of valve chamber completed.
- Kelly Ridge Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for November 1 thru 18, 2023.

Project Facilities and Assets

- LGV Dam – Inspect, Clean Spillway Drains, Repair Spillway Concrete, Repair Buoys, Service Low-Level Outlet Valve, Repair Portal Conduits
- LGV Res at Black Rock – Inspect, Repair Boat Dock
- South Fork Div Dam – Apply Coating to Railings and Toe Kicks
- Slate Creek Div Dam – Inspect, Perform Annual PM's
- Sly Creek Dam – Inspect, Clean Spillway Drains, Remove Vegetation, Apply Herbicide
- Lost Crk Dam – Inspect, Perform Annual PM's, Service Mid-Level Outlet Valves, Service Low-Level Outlet Valve, Operate Tunnel Intake Gate, Clean Drains, Remove Vegetation
- SF-14 – Inspect, Apply Herbicide
- Woodleaf Penstock – Install Tunnel Valve Controls
- MRC – Inspect Canal, Clean Trash Racks
- Station 2 and 3 – Inspect, Clean Trash Racks
- Ponderosa Dam – Inspect, Remove Vegetation, Apply Herbicide
- Project Sites – Install and Test Fire Suppression Systems
- Vehicle Fleet and Equipment – Perform Service and Maintenance

REGULATORY COMPLIANCE

Upcoming Dam Safety and Security Inspections

Our FERC field engineer will be on the Project August 22-23 to conduct safety inspections at our high hazard dams. The Gannett Fleming Security team, including the physical, cyber and structural experts, will be on site for the Security and Vulnerability assessments of all nine dams and appurtenant structures August 29-31. Our DSOD field engineer will be on site September 13-14 to conduct safety inspections at all nine jurisdictional dams. Agency maintenance crews have done an excellent job to complete annual performance maintenance and address items noted in 2022 inspection reports. We are in good shape to host our regulators out on the Project!

PROJECT WORK

Miners Ranch Canal Panel 208-212 Repair

The Agency issued an RFB to solicit proposals from qualified contractors to remove and replace a 100-foot section of the Miners Ranch Canal. A pre-bid job walk was conducted with responsive contractors on August 9th. Bids are due on September 14th.

Engineering and Design for Miners Ranch Canal Replacement Program

The Agency has executed a contract with Gannett Fleming to perform a complete engineering and design package for the Miners Ranch Canal, which will replace the incomplete and outdated drawings that we currently have, and will provide a comprehensive "alternatives analysis" to determine the most executable and cost-effective way to refurbish the canal. A project kickoff meeting will be scheduled in the upcoming weeks.

Sly Creek Powerhouse Governor Control System Replacement

RFPs were issued to Respondents on May 8, 2023 by posting on the Agency's website and via direct email to several hydro industry firms. By the closing date of August 7, 2023, four proposals were received. The RFP outlined the Power Division staff that would comprise the Review and Ranking team, as well as the Scoring criteria. The team is currently reviewing and scoring the proposals.

PERSONNEL

Recruitment – Electrical Machinist, Journey Level

The Agency is recruiting for an Electrical Machinist, Journey Level, in preparation for future staff retirement.

GENERAL MANAGER'S REPORT

The total Miners Ranch Treatment Plant (MRTP) treated water production for the month of July totaled 272.68 million gallons.

The total Bangor Treatment Plant (BTP) treated water production for the month of July totaled 1.274 million gallons.

The Red Hawk Ranch Pump Station raw water total flow for July totaled 2,437,535 gallons.

Large number of leak repairs and service replacements though out the district this month primarily due to aging infrastructure. Several days were spent raising and concreting valve boxes post county contracted paving on Miners Ranch Road. Sand and gravel was hauled back from the Palermo project area to SF's yard as it is unlikely the district will be performing the work.

SB 998 current district statistics were presented.

811 Dig/Utility locate tickets were profiled in a bar graph to demonstrate the continued increase in requests for field locate resources.

All irrigation systems are in full operation. WD6 water flow was slightly reduced in a effort to increase water diversion at Costa Creek. A site visit was conducted at the Helfer-Stout Flume on the Upper Forbestown Ditch to review emergency repair needs that NYWD is working on. If there is a failure in the flume, water supply is severed to both district's (raw and treated to NYWD and raw / Lake Wyandotte Reservoir for SF).

Water Rates: The request for proposal for contract services to assist SF in an updated water rates study was submitted at the end of July and posted on the Agency website. There were a few emails from potential parties of interest and the official closing date for mailed proposals is Friday August 18, 2023. At the time of this writing for publication into the board packet the closing date had not occurred. An update on submissions will be communicated during the August 22, 2023 regular board meeting.

PG&E standby metering: A phone meeting was conducted on August 16, 2023 with the Corporate Principal, Regulatory Affairs from PG&E in regards to standby metering at SF's four powerhouses. A discussion centered around legal requirements of parity on Hydro compared to Gas-Fired generation as it pertains to Resource Adequacy (RA). Site visits will be scheduled at all four powerhouses, access to CAISO data for determination of billing changes and tariff language supporting the use and billing costs. There are a number of items that need to be addressed around details of use and cost which will be forthcoming.

Advisian: Len Marino would like to present a proposal at September's board meeting post the water storage analysis performed last year. This presentation would include

1. Bathymetric Surveys (**study of the "beds" or "floors" of water bodies)** to determine amount of sediment in Miners Ranch and Ponderosa Reservoirs.
2. Miners Ranch Dam crest raise study.
3. Water Distribution Optimization Study.

CSDA: The public affairs field coordinator for CSDA inquired if South Feather would be interested in providing a short, targeted tour for representatives of Assemblyman Gallagher's and Senator Dahle's office. SF staff provided a tour of Miners Ranch Treatment Plant and Kelly Power house on August 17, 2023.

Palermo Water Consolidation Project: SF is working with Butte County to receive re-imbursement of expenditures of materials on the project. The Water Board has communicated to the County that SFWPA many not be able to construct the project, given that any funding source my be required to go to bid and comply with prevailing wage requirements. The Water Board is also waiting for a Resolution from SF adopting the current rate structure and 5-year budget projections. State funding for the project is likely six months out.

Wyandotte Creek: A communication by Butte County approving annual fees for the sub-basin annual expenses was shared with the board. SF's counsel commented that the County would need to get the agency's consent to assess fees to its landowners per the MOU.

PUBLIC COMMENT

Public comment for Directors can be submitted anytime via e-mail. However, in order to be read into the record during the meeting it must be submitted to PublicRelations@southfeather.com by 12:00 P.M. Tuesday August 22, 2023.

Ron Fink reminded the board that historical water rights are important and what's at risk. There is a property owner impact to land value. Asked if we knew why there was a decline in customers on the miller hill ditch. Stated 68 users in 2018 and 36 users in 2020. Watch State and Federal regulations. Asked if the Henderson application is now added to users and stated he should be provided 2-3 inches. Encouraged directors to travel fire camp road and take a look at their district. Thanked the agency for accurate meeting minutes from the previous month.

Donna Corson introduced herself as a NYWD customer and lives in Dobbins. Many actions helped water reach Dobbins this year. Thanked Tod Hickman – Bangor Winery. He gave support for two to three years. South Feather board and management committed to success for all. False statements of Mr. Hickman. He lost his seat on the board.

Charles Sharp, Oregon House thanked SF for all you provided to restore irrigation water. Gratitude to staff for mutual aid on the ditch. Appreciates all the support. Tod Hickman is an inspiration to all.

Toni Reid Communicated that she lives at 466 Circle Drive. Has three water meters, 2 irrigation and 1 domestic. Required to buy drinking water. All areas around her have access to drinking water it should be available on upper Circle Drive. Palermo is getting expanded drinking water and so should Circle Drive.

Roger Bailey communicated that he had submitted comments to Rath (below) and that the Request for Proposal on Water Rates was excellent.

Hello Rath,

Respectfully submitted are comments for the 8/22 SFWPA Board Meeting. First, a comment on the noted item in the Minutes.
Following, is a response to your suggestion to review the RFP soliciting for consultant to provide the Agency with Analysis of Water Rates, submitted as an
Owner/Voter/Member of the SFWPA and a Domestic Water User are offered below; noted, that a lot of effort went into creating this RFP!

1. July '23 Minutes: Mr. Todd Hickman's Public Participation presentation appeared to be asking the Board to open an action to evaluate a possible merger combining SFWPA and NYWD. The proposal has merit. Minutes do not seem to reflect the item as a Member Request before the Board, no indication of Board follow-up! Will the Board take this up for formal business determination?

2. RFP, Water Rates Consulting:
(Well written, Comprehensive appears to be carefully thought through.)

Comments:
A. The RFP indicates to "this reviewer", a major project is required of the Consultant! To "get it done", a large and diverse set of criteria (extensive undertaking) will have to be assembled and analyzed in order for the Consultant to derive the Final Determinations and Recommendations as sought by the SFWPA, examples:

- Effort to Transfer SFWPA's business model knowledge to the Consultant will be a drain on Agency resources.
- The Consultants "digging in" to come to a comprehensive understanding of SFWPA's business is critical and consequential.
- Narrowing a "field of Water Providers" who are viably comparable to the SFWPAs Business Model.
- Consequently, there is risk that Bidders or the selected Consultant may request extension to RFP, report deadlines.

Summarizing, a truly comprehensive Bid is speculated to be "costly".

B. Purpose, Pg. 2 or RFP
1.0) Pg. 2; *Purpose "Opening Statement" of RFP ... ref "validate an estimated value of the subsidy that agency's General Fund receives from Sly Creek Power revenues."* Paragraph and the statement omits the following: ***"an estimated value of the subsidy that agency's General Fund receives from the Joint Facility"*** *(by whatever bookkeeping means). And a statement that* ***"the Bidder's***

analysis and evaluation, in concluding a proposed Water Rate Schedules, it is to be based on the entirety of SFWPAs Business!

C. Pg. 2; Background and History .....The Rancherias (Fed Reservations) Customer should be included in the list of "special entity customers" and a consideration of their current, or any appropriate Fee Structures.

- *Mooretown Rancheria*
- *Berry Creek Rancheria*

Respectfully Submitted,

Roger Bailey

SFWPA Owner/Voter

Gretchen Flohr expressed gratitude and appreciation for SF's board and GM. Stepped in to provide mentoring to field staff. Cited training through mutual aid. Renewed faith in mankind.

Alton Wright introduced himself and communicated the following:

Change is never easy and often comes with risk. Should be done with strategy and sustainable implementation. Comprehensive water shed management. Mr. Wright then continued and read the following commentary.

Hello Everyone,

I'm Alton Wright, before you today as a resident of Forbestown, Yuba County.

Thank you for the opportunity to speak.

We all know change is never easy, especially when it comes to business decisions.

There are many criteria to consider:
Like risk, be it financial, operational or risk associated with public perception,
There are audiences to consider like staff and customers, as well as community naysayers and uninformed elected representatives gumming things up.
And, of course, there are always the time challenges – Some will say, "it's not the right time," or "too soon," while others will exclaim, "it's about time," or "should have happened years ago."
And so forth and so on...

Clearly, having sound, experienced leadership means these challenges are well evaluated and are supported by smart strategies and stellar implementation.

If executed right, most business changes guarantee healthy growth, staff opportunities and increased customer satisfaction. A win-win for everyone.

If implemented poorly, with hesitation, without confidence and without taking a leadership position, the result can be a blemish, possibly forever.

There's an opportunity unlike anything previously considered. A once-in-a-lifetime chance to provide valuable improvements for both Butte and Yuba County through comprehensive watershed management without the stumbling and waste of an obstacle. An opportunity that assures greater cooperation between the two largest water agencies in the region. An opportunity that cements an improved, better run, more water-rich, more fire-safe future for our shared communities and their families.

I urge you to act with urgency, without hesitation.
There's never been a better time than right now.
Waiting might signal weakness and will allow for local wedges.
A better future is out there. Please make this happen!

Thank you.

Marieke Furnee thanked the board for SF's slight decreases in water diversion at WD-6 as it helped 10 NYWD customers continue to receive irrigation water this season at Costa Creek Diversion. Commented on the upper Forbestown ditch Helfer-Stout flume field visit between NYWD and SF.

DIRECTORS' REPORTS
Director Starr: Discussed water levels at Little Grass Valley Reservoir and cabin owners are concerned about the lack of communication on water levels. More dirt bank is showing than in the past this time of year and would like to see improved communication when elevation levels change.
Director Duncan: No report for the month of August.
Director Wulbern: Thanked the public for coming to the board meeting. The Director's goal is to represent the district in the best way they can. Not opposed to listen to anything that helps the overall community.
Director Hemstalk: No report for the month of August.
Director Grover: Thanked the public for being here today.

RECESS (4:01)
President Wulbern offered opportunity for public comment on closed session items.

CLOSED SESSION (convened at 4:11 p.m.)

The public was asked if there were any questions before South Feather enters closed session and expect action to be taken once closed session is completed and back in open session.

Conference with Legal Counsel – Existing Litigation
(Paragraph (1) of subdivision (d) of Government Code section 54956.9

A. Name of Case: North Yuba Water District v. South Feather Water & Power Agency et al., Sutter County Superior Court Case No. CVCS21-0001857
B. Name of Case: South Feather Water & Power Agency v. North Yuba Water District et al., Sutter County Superior Court Case No. CVCS21-0002073
C. CONFERENCE WITH LEGAL COUNSEL--EXISTING LITIGATION
(Paragraph (1) of subdivision (d) of Section 54956.9)
Name of case: Claim submitted by Aiman-Smith & Marcy on Behalf of Cari McCormick
D. LIABILITY CLAIMS
Claimant: Aiman-Smith & Marcy on Behalf of Cari McCormick
Agency claimed against: South Feather Water and Power Authority

OPEN SESSION (reconvened at 4:50 p.m.) – President Wulbern announced that legal counsel was given direction during closed session.

Counsel communicated in regards to new liability claim that there were five I's rejecting the claim and zero NO's.
The five I's were Director's Rick Wulbern, Ruth Duncan, Mark Grover, Brad Hemstalk and John Starr.

ADJOURNMENT (4:51 p.m.)

Rath T. Moseley, Secretary

Rick Wulbern, President

SOUTH FEATHER WATER & POWER AGENCY

TO: **Board of Directors**

FROM: **Cheri Richter, Finance Manager**

DATE: **September 21, 2023**

RE: **Approval of Warrants and Checks**
Agenda Item for 9/26/2023 Board of Directors Meeting

August, 2023 expenditures are summarized as follows:

Checks:	64963	to 65183	$ 1,130,707.02
Electronic Fund Transfers:	230801	to 230811	$ 345,449.25
Payroll Expenses:			$ 492,667.23
TOTAL EXPENDITURES FOR AUGUST, 2023			**$ 1,968,823.50**

At August 31, 2023, the authorized balance available was $351,546.62.

Action to approve all expenditures:

"I move approval of expenditures for the month of August, 2023 in the amount of $1,968,823.50 and authorize the transfer of $1,500,000.00 from the TCB General Fund to the TCB Accounts Payable and Payroll Fund for the payment of regular operating expenses."

South Feather Water and Power Agency
Checks Paid, August, 2023

Date	Check #	Vendor Name	Account	Description	Amount
8/4/2023	64963	Accularm Security Systems	01-50-50201	8/2023 Fire/Burg Monitoring, Email Notifications	$197.00
8/4/2023	64964	ACWA/JPIA	07-62-62390	Property Insurance Prog Renewal...7/1-6/30/2024	$305,033.34
8/4/2023	64965	AT&T	07-68-68251	6/19/23 - 7/18/23 Equipment/Router-Circuit Billing	$163.00
8/4/2023	64966	AT&T Mobility	01-50-50251	6/19/23 - 7/18/23 Cell Phone/Tablet Service	$249.03
8/4/2023	64967	Better Deal Exchange	01-54-54104	PVC Check Valve, Fittings, Thread Seal Tape, Clamps	$149.92
8/4/2023	64968	Bobcat of Chico	01-56-56150	Pins, Recirculation & Hydraulic Oil Filters	$322.85
8/4/2023	64969	Carpet Warehouse	07-62-62370	Carton of VCT tiles, I Gallon Adhesive	$289.01
~~8/4/2023~~	~~64970~~	~~VOID~~		~~VOID~~	$0.00
8/4/2023	64971	Kisters North America	07-68-68380	Annual Maintenance and Support 9/1/23 - 8/31/24	$3,883.95
8/4/2023	64972	Long, Ashlee	01-55-55394	Health Benefit Reimbursement	$60.00
8/4/2023	64973	Major, Robert	01-54-54394	Health Benefit Reimbursement	$35.00
8/4/2023	64974	McMaster Carr Supply Co.	01-53-53260	PVC On/Off Valve for Drinking Water	$105.08
8/4/2023	64975	Metal Works Supply	01-54-54104	Floor Plate	$229.25
8/4/2023	64976	Napa Auto Parts	01-56-56150	Air/Fuel Filters, Oil Drain Plugs, Serpentine Belt	$360.14
8/4/2023	64977	Nevers, Cory	07-66-66394	Health Benefit Reimbursement	$60.00
8/4/2023	64978	Office Depot, Inc.	01-50-50106	Copy Paper, Toner Cartridge	$368.36
8/4/2023	64979	Oroville Cable & Equipment Co.	01-56-56150	Hydraulic Hose, Swivel Adapter - T140	$187.36
8/4/2023	64980	Oroville Ford	01-56-56150	Antifreeze	$31.09
8/4/2023	64981	Pace Supply Corp.	01-00-22300	3/4 MIP X 1 CTS Adapter	$470.16
8/4/2023	64982	Perrin, Jaymie	01-52-52394	Health Benefit Reimbursement	$60.00
8/4/2023	64983	Ramos Oil Co.	01-56-56160	Fuel	$3,428.51
8/4/2023	64984	Southern Computer Warehouse	01-58-58100	USB Wall Charger, USB A Cables, Laptop Dock	$494.57
8/4/2023	64985	Underground Service Alert	01-54-54201	2023 Membership	$2,108.56
8/4/2023	64986	Vista Net, Inc.	07-68-68201	Assist With Website Issues, Correct Call Forwarding	$1,050.00
8/4/2023	64987	W.G. Civil Engineers, Inc.	01-54-54201	Eng./Survey Services Rendered	$1,510.60
8/4/2023	64988	Weimer and Sons	01-54-54264	Recycled Base, Utility Sand	$1,187.95
8/4/2023	64989	Better Deal Exchange	07-63-63100	Main Vent Fan Filters - WPH, FPH, SPH	$933.68
8/4/2023	64990	Capital One	07-66-66100	Bottled Water, Garbage Bags Wasp/Hornet Spray	$267.00
8/4/2023	64991	F.E.R.C.	07-64-64501	2023 FERC Hydropower Annual Admin Charges	$128,705.67
8/4/2023	64992	Grainger Inc.	01-61-61260	Needle Valve	$55.92
8/4/2023	64993	McMaster Carr Supply Co.	07-63-63260	Mounting Nuts, Screws, Drilled Screwdrivers	$82.89
8/4/2023	64994	Napa Auto Parts	07-66-66150	Bearing Race Kit, Roller, Oil Filter, Spark Plugs	$200.19
8/4/2023	64995	North Valley Distributing	07-68-68260	Breaker DIN Rail Assembly-Radios, Adapter Cables	$262.81
8/4/2023	64996	North Yuba Water District	07-66-66250	Water Svc For Hq. 5/23/23 to 7/20/23	$61.00
8/4/2023	64997	Oro Dam Auto Center	07-66-66100	Floor Mats For T-311	$107.17
8/4/2023	64998	PBM Supply & Mfg., Inc.	07-66-66150	AWS-3 Leaf Spring w/2550# Axle Cap	$105.89
8/4/2023	64999	Simple Pump	07-65-65370	Hand-Operated Well Pump/Material-1 Campground	$2,552.00
8/8/2023	65000	Cooper, Raymond	07-62-62370	Labor to Repair VCT Flooring in Map Room	$500.00
8/11/2023	65001	Access Information Management	01-50-50201	July 2023 Shred Service	$231.10
8/11/2023	65002	Advanced Document Concepts	01-50-50380	July 2023 Printer/Copier Maintenance Contract	$790.44
8/11/2023	65003	AT&T	01-53-53251	7/14/23 - 8/13/23 MRTP Internet Connection	$134.82
8/11/2023	65004	AT&T Long Distance	07-60-60251	6/22/23 - 7/24/23	$289.17
8/11/2023	65005	Baker Supplies and Repairs	01-54-54270	Auto cut 25-2 Weed Eater Parts, Spark Plugs	$116.91
8/11/2023	65006	Better Deal Exchange	01-54-54270	PVC Primer/Cement, PVC Adapters, Caution Tape	$391.24
8/11/2023	65007	BSK Associates	01-53-53201	Nitrate-N Testing, Lead/Copper Testing	$920.00
8/11/2023	65008	Carboline Global Inc.	01-53-53260	Carbothane 134 VOC Polyurethane Finish	$1,284.67
8/11/2023	65009	Cawthon, Ross	07-63-63394	Health Benefits Reimbursement	$60.00
8/11/2023	65010	Comcast	01-53-53251	August 2023 Mainline - Phone/Circuit Service	$2,453.59

South Feather Water and Power Agency
Checks Paid, August, 2023

Date	Check #	Vendor Name	Account	Description	Amount
8/11/2023	65011	Cook, Dawn	01-56-56394	Health Benefit Reimbursement	$55.00
8/11/2023	65012	Copy Center	01-53-53201	UPS Fee - 8 Shipments	$861.94
8/11/2023	65013	Cranmer Engineering, Inc.	01-53-53201	Colilert P/A 18hr Testing	$430.00
8/11/2023	65014	De Air Company	01-56-56201	Cleared Shop Office AC	$179.00
8/11/2023	65015	InfoSend, Inc.	01-55-55201	7/3/23 FedEx Door Hangers, July Cycles 1-10 Billing	$8,812.80
8/11/2023	65016	Manufacturers Edge Inc.	01-54-54104	Bangor Redhawk Pump Repair Kit	$490.33
8/11/2023	65017	McMaster Carr Supply Co.	07-64-64260	High-Pressure Steel Tee Outlets, Padlock able Hasps	$148.35
8/11/2023	65018	Metal Works Supply	07-64-64100	HR Plate, Angles, Rebar, Flat Plate, Galv Pipe	$1,181.17
8/11/2023	65019	P G & E	01-54-54250	6/2/23 - 7/24/23 Service	$15,591.17
8/11/2023	65020	Recology Butte Colusa Counties	01-56-56250	July 2023 Garbage Service	$1,109.43
8/11/2023	65021	Thomas Hydraulic & Hardware	01-56-56150	O-Rings, Wiper, Pump For Dump Bed	$590.73
8/11/2023	65022	U S A Blue Book	01-53-53260	pH 10.00 Buffer Blue/Yellow/Yellow, Cylinder	$960.29
8/11/2023	65023	Underground Service Alert	01-54-54201	7/1/23 - 6/30/24 Membership	$726.19
8/11/2023	65024	Vista Net, Inc.	01-58-58360	8/23 Email/Monitoring/Spam Service, Licenses	$5,148.14
8/11/2023	65025	Capital One	07-63-63100	Clorox Wipes, Ziplock Bags, Plasticware	$49.77
8/11/2023	65026	Comcast Business	07-63-63251	For CAISO Meters In SPH/PHs 8- 9/2/23	$190.08
8/11/2023	65027	Copy Center	07-63-63201	UPS Fees	$341.25
8/11/2023	65028	Emerson Process Management	07-63-63260	Governor Pump Overhaul Kits, Governor Parts	$10,903.39
8/11/2023	65029	Global Power Technologies	07-64-64260	Shut-Off Valve-Thermo Generator, Insulation Spacer	$482.30
8/11/2023	65030	Home Depot Credit Service	07-64-64100	Lumber, Carpet, Impact, Drill, Microwave	$986.79
8/11/2023	65031	M J B Welding Supply	07-63-63100	MIL 907757, Multimatic 220 AC/DC Welder For SHP	$4,486.71
8/11/2023	65032	Orkin Pest Control	07-64-64201	Ground Squirrel Suppression Prog 7/2023	$750.00
8/11/2023	65033	Oroville Cable & Equipment Co.	07-66-66171	Tank Rent For July 2023	$233.75
8/11/2023	65034	P G & E - Sacramento	07-63-63501	Gen. Interconnection Agr. For 8/2023	$7,010.37
8/11/2023	65035	Paramex Screening Services	07-62-62226	DMV Physical For One Employee	$95.00
8/11/2023	65036	Ramos Oil Co.	07-66-66160	Gas & Diesel	$6,583.00
8/11/2023	65037	Ray's General Hardware	07-65-65260	Treated Lumber, Connectors, Paint, Bolts, Screws	$459.72
8/11/2023	65038	Recology Yuba-Sutter	07-65-65250	Garbage Svc. For 8/2023	$2,438.47
8/11/2023	65039	STAPLES CREDIT PLAN	07-60-60106	Tape, Batteries, Office Supplies, First Aid Supplies	$322.31
8/11/2023	65040	Tate Andale, LLC	07-00-11140/2023-0608	Final Payment For 8" Model R Duplex Strainer	$27,226.34
8/11/2023	65041	Western Renewable Energy	01-61-61201	WREGIS For KPH 8/2023	$64.20
8/18/2023	65042	AT&T	07-66-66251	Local Calls 8/10/23 - 9/9/23	$1,704.52
8/18/2023	65043	B & G Smog	07-66-66201	Smog Tests	$167.75
8/18/2023	65044	Bank of America - Bank Card	07-66-66201	Trailer Flooring, Coveralls, Transport 2 Trucks	$4,477.60
8/18/2023	65045	CDW Government, Inc.	07-68-68201	Virus Protection For SCADA System	$351.22
8/18/2023	65046	Home Depot Credit Service	07-64-64270	Plywood, Lag Screws, Wood Preservative, Skill Saw	$643.54
8/18/2023	65047	Interstate Battery Sac. Valley	07-64-64100	Deep Cycle Batteries	$812.40
8/18/2023	65048	Napa Auto Parts	07-64-64150	Air/Oil Filters, Wheel Seals, Spark Plugs, Battery Box	$418.36
8/18/2023	65049	Northern Safety Co., Inc.	07-62-62100	Philips HeartStart Onsite AED Replacement Batteries	$1,069.94
8/18/2023	65050	Precision Digital Corp.	07-68-68100	Process & Temperature Digital Panel Meters	$1,000.03
8/18/2023	65051	Ray's General Hardware	07-00-11150/2023-0606	Glue, Tape, Carpet Bar	$21.51
8/18/2023	65052	Ropeworks	07-64-64100	Safety Gear, Shipping Charge	$2,602.66
8/18/2023	65053	Schnabel Engineering, LLC	07-67-67201	External Audit Svc, FERC Owner Dam Safety Prog	$31,676.30
8/18/2023	65054	Tehama Tire Service, Inc.	07-66-66150	2 New Tires For E-95	$291.55
8/18/2023	65055	YSI Incorporated	07-67-67201	Satellite Antenna Cable-Data Loggers & GOES	$475.63
8/18/2023	65056	AT&T	07-68-68251	8/5/23 - 9/4/23 Firewall	$672.10
8/18/2023	65057	AT&T Long Distance	01-53-53251	6/29/23 - 7/28/23 Service	$21.06
8/18/2023	65058	AT&T Mobility	07-68-68251	8/3/23 - 9/2/23 Cell/Tablet/Router Service	$669.04

South Feather Water and Power Agency
Checks Paid, August, 2023

Date	Check #	Vendor Name	Account	Description	Amount
8/18/2023	65059	Better Deal Exchange	01-54-54104	Rags, Chain, Spray Paint, Bolt Cutters, Pliers, Clamps	$200.39
8/18/2023	65060	Bobcat of Chico	01-56-56150	Dipstick, Filter - E222	$105.93
8/18/2023	65061	BC Auditor-Controller, LAFCO	01-50-50501	Share of Cost, Auditor-Controller Fee (2023-2024)	$17,860.36
8/18/2023	65062	Butte Co. Dept. of Public Health	01-52-52501	Annual CUPA Fees	$6,880.00
8/18/2023	65063	Calif. Air Resources Board	07-62-62501	PERP Permit Renewal for Engine # YBU745636G	$735.00
8/18/2023	65064	Comer's Print Shop	01-55-55102	Delinquent Notices	$551.05
8/18/2023	65065	Core & Main	01-00-22300	4" Flange Adapter, Grip Ring Kit, Bolt-Up	$529.62
8/18/2023	65066	Cranmer Engineering, Inc.	01-53-53201	Colilert P/A 18hr Testing - MRTP	$210.00
8/18/2023	65067	Dan's Electrical Supply	01-53-53260	Non-Conductive Fish Tape, Potting Kit	$310.96
8/18/2023	65068	Fastenal Company	01-54-54104	Jobber Drill Bits, Marking Paint, Batteries	$353.27
8/18/2023	65069	FGL Environmental	01-53-53201	Coliform-Qtray/Colilert Testing	$194.00
8/18/2023	65070	Hach Co.	01-53-53260	Chlorine Reagent, Buffer/Indicator Solution	$1,977.74
8/18/2023	65071	Hemming Morse, LLP	07-60-60208	Professional Accounting Services - 7/1 - 7/31/2023	$17,242.00
8/18/2023	65072	JAX Inc.	01-53-53260	Pails	$487.13
8/18/2023	65073	Jeff's Truck Service	01-56-56150	Oil Gasket Inlet & Outlet Flanges	$61.73
8/18/2023	65074	M J B Welding Supply	01-54-54104	Colored Pencils, Soapstone Holders, Colored Pencils	$39.06
8/18/2023	65075	Metal Works Supply	01-54-54295	HR Sheets, Flat/Round Bars	$946.66
8/18/2023	65076	Napa Auto Parts	01-56-56150	Tire Repair Kits, Starter, Oil	$302.18
8/18/2023	65077	Oroville, City of	01-00-22907	July 2023 City Utility Tax	$2,794.23
8/18/2023	65078	Pace Supply Corp.	01-00-22300	I 1/2" Poly Tubing, Adapters, Coupling	$1,796.44
8/18/2023	65079	Paramex Screening Services	01-52-52226	DMV Exam; 08/08/2023 For One Employee	$95.00
8/18/2023	65080	Powerplan - OIB	01-56-56150	Air & Fuel Filters, Gasket	$114.76
8/18/2023	65081	Reynolds, Josh	07-63-63394	Health Benefit Reimbursement	$60.00
8/18/2023	65082	Southern Computer Warehouse	07-68-68100	Portable Hard Drive (1)	$72.72
8/18/2023	65083	U.S. Bank	01-55-55114	Satellite Internet Svc, Staff Gages, Prepaid Envelopes	$4,774.30
8/18/2023	65084	Vista Net, Inc.	07-68-68201	Assist W/ Firewall & Software	$270.00
8/18/2023	65085	A D P, Inc.	01-50-50201	August 2023 Payroll Processing	$1,752.44
8/18/2023	65086	ACWA-JPIA	01-50-50400	September 2023 Employee Vision & Dental Insurance	$10,139.18
8/18/2023	65087	AFLAC	01-00-22915	Employee Sup-Disability/Life-PR 7/14 & 7/28/23	$1,556.12
8/18/2023	65088	Empower Annuity Ins Co.	01-00-22908	PR 7/28/23 & 8/11/23 Employee 457 Contributions	$200.00
8/18/2023	65089	IBEW #1245	01-00-25207	July 2023 Member Dues	$6,475.34
8/18/2023	65090	Mission Square Retirement	01-00-22908	PR 8/11/23 Employee 457 Contributions	$4,233.92
8/18/2023	65091	Nationwide Retirement	01-00-22908	PR 7/28/23 Employee Contributions	$4,441.56
8/18/2023	65092	Reliance Standard Life	01-50-50402	August 2023 Employee Life Insurance	$939.09
8/18/2023	65093	Standard Insurance	01-50-50403	August 2023 Employee Disability Insurance	$3,093.79
8/18/2023	230801	CalPERS	01-50-50413	PR 7/28/23 Classic/PEPRA Emp. Retirement Contributions	$51,156.27
8/18/2023	230802	CalPERS 457 Plan	01-00-22908	PR 7/28/23 Employee 457 Contribution	$3,116.35
8/18/2023	230803	Lincoln Financial Group	01-00-22908	PR 7/28/23 Employee 457 Contribution	$1,280.86
8/18/2023	230804	CalPERS	01-50-50400	August 2023 Employee/Retiree Health Insurance	$179,182.37
8/18/2023	230805	CalPERS	01-50-50413	PR 8/11/23 Classic Emp. Retirement Contributions	$50,980.71
8/18/2023	230806	CalPERS 457 Plan	01-00-22908	PR 8/11/23 Employee 457 Contribution	$3,113.95
8/18/2023	230807	Lincoln Financial Group	01-00-22908	PR 8/11/23 Employee 457 Contribution	$1,324.57
8/25/2023	65094	AT&T	07-60-60251	For Circuits 8/10/23 to 9/9/23	$483.60
8/25/2023	65095	AT&T	07-60-60251	For KPH Fiber Optic Connection For 8/2023	$1,060.58
8/25/2023	65096	B & G Smog	07-66-66171	Smog Tests	$102.25
8/25/2023	65097	Capital One	07-63-63100	Wasp Spay, Kleenex, Paper Bowls, Cleaners	$231.68
8/25/2023	65098	Consolidated Electrical Dist., Inc.	07-66-66100	CRC 2-26 Multi Purpose Precision Lubricant	$175.95
8/25/2023	65099	Cresco Equipment Rentals	07-64-64171	Rivet Buster 8" Stroke/Moil PT12" Rental	$752.11

South Feather Water and Power Agency
Checks Paid, August, 2023

Date	Check #	Vendor Name	Account	Description	Amount
8/25/2023	65100	Dragonfire Tools LLC	07-00-11150/2023-C66k	17 Drawer Workbench, Job Tool Box, Caster Set	$4,709.00
8/25/2023	65101	McMaster Carr Supply Co.	07-64-64260	SikaFlex Sealant, Pick Set, Stud Anchor	$1,576.15
8/25/2023	65102	MSC Industrial Supply Company	07-63-63100	LED Flashlight	$73.38
8/25/2023	65103	Napa Auto Parts	07-66-66270	DEF Fluid, A/C Manifold Tool, Oil	$403.21
8/25/2023	65104	Oroville Ford	07-66-66150	Oil & Air Filter, Brake Shoes	$225.39
8/25/2023	65105	Oroville Safe & Lock	07-66-66100	All Weather Heavy Duty Door Knob Set	$200.00
8/25/2023	65106	P G & E	07-63-63250	Electric Service SPH, HQ, PH's	$15,381.27
8/25/2023	65107	RS Americas, Inc.	07-00-11140/2023-0618	Power Supply	$111.08
8/25/2023	65108	Talley Communications	07-68-68100	Ultra Flexible Coax Cable, Mean Well Power Supply	$1,284.54
8/25/2023	65109	AT&T	01-53-53251	8/14/23-9/13/23 MRTP Internet Connection	$117.70
8/25/2023	65110	Better Deal Exchange	01-54-54104	Brass Connectors, PVC Cap/Bushings	$84.57
8/25/2023	65111	Bobcat of Chico	01-56-56150	Clamp Pivot Pin, Filters	$467.35
~~8/25/2023~~	~~65112~~	~~VOID~~		~~VOID~~	$0.00
8/25/2023	65113	Capital One	01-53-53260	Cleaning/Lab Supplies	$120.40
8/25/2023	65114	Franklin Construction	01-00-11169/2023-C53g	Asphalt Slurry Seal on Surface and Dikes	$12,945.00
8/25/2023	65115	Home Depot Credit Service	01-53-53270	Starter Kit W/Battery & Charger, Steel Square	$380.52
8/25/2023	65116	Martinez, Arthur	01-58-58408	ESRI-GIS Conference Registration - October 2023	$49.00
8/25/2023	65117	McMaster Carr Supply Co.	07-64-64260	Connectors	$118.20
8/25/2023	65118	North Yuba Water District	07-69-69990	2023 Apr-Jun, JFOF Minimum Annual Payment	$177,250.00
8/25/2023	65119	Oroville Cable & Equipment Co.	01-54-54295	Grinding Discs, Pull Forks, Hydraulic Hoses	$854.27
8/25/2023	65120	Ramos Oil Co.	01-56-56150	Fuel, Diesel	$4,634.16
8/25/2023	65121	Tehama Tire Service, Inc.	01-56-56150	4 New Tires	$810.90
8/25/2023	65122	Thatcher Company	01-53-53102	46,000lb-NSF Approved Liquid Aluminum Sulfate	$4,320.78
8/25/2023	65123	Verizon Wireless	01-53-53251	7/11/23 - 8/10/23 Cell Phone Service	$133.84
8/31/2023	65124	Barrow, Judge or Bonnie	01-00-22200	Refund Check UB014640-000	$91.50
8/31/2023	65125	Demund Revocable Trust	01-00-22200	Refund Check UB011860-000	$19.42
8/31/2023	65126	Karm Saran Real Estate Inc	01-00-22200	Refund Check UB021487-000	$30.61
8/31/2023	65127	Kirk, Dairl	01-00-22200	Refund Check UB004729-000	$39.68
8/31/2023	65128	Oroville Church of Religious Science	01-00-22200	Refund Check UB014438-000	$31.10
8/31/2023	65129	Wilmington Savings Fund Society	01-00-22200	Refund Check UB001753-000	$26.56
8/31/2023	65130	Yang, Lee	01-00-22200	Refund Check UB020494-000	$72.83
8/31/2023	65131	B & G Smog	07-66-66201	SMOG Test On Trucks T-217/121/116	$98.25
8/31/2023	65132	Better Deal Exchange	07-66-66100	Batteries, Spray Paint	$95.99
8/31/2023	65133	Capital One	07-63-63100	Bottled Water	$122.00
8/31/2023	65134	Dan's Electrical Supply	07-68-68260	Conduit, Fittings, Screws, Elec. Boxes	$1,402.36
8/31/2023	65135	Dish Network	07-60-60201	Satellite Svc. For Hq. 9/8/23 to 10/7/23	$60.00
8/31/2023	65136	Douglass Truck Bodies Inc.	07-00-11150/2023-0614	Custom Truck Bodies On T-229 & T-230	$81,754.46
8/31/2023	65137	Gannett Fleming, Inc.	07-67-67201	FERC Compliant Security Vulnerability Assessment	$1,523.50
8/31/2023	65138	Geweke Ford	07-00-11150/2022-0999	2023 Ford F150 Supercab 4x4 Truck T-231	$47,858.09
8/31/2023	65139	Line-X of Yuba Sutter	07-00-11150/2023-0613	Balance Of Payment For Camper Shell On T-227	$2,466.38
8/31/2023	65140	Motion Industries, Inc.	07-64-64260	Oil Seal, Coil Kit	$477.46
8/31/2023	65141	Mt. Shasta Spring Water	07-63-63100	Bottled Water	$128.18
8/31/2023	65142	Napa Auto Parts	07-66-66150	Oil Filters, Oil	$197.45
8/31/2023	65143	North Valley Distributing	07-00-11140/2023-0618	PM2 Series Kit For Radios, Antennas, Cable	$2,526.49
8/31/2023	65144	Oroville Safe & Lock	07-66-66100	Keyed Alike Master Padlocks	$101.19
8/31/2023	65145	OTT Hydromet Corp.	07-67-67201	Temperature/Humidity Sensor-Replaceable Head	$4,255.30
8/31/2023	65146	Ray's General Hardware	07-68-68260	Bolts, Nuts, Buckles, Rebar, Lumber, Crimp Tool	$308.56
8/31/2023	65147	Staples Credit Plan	07-60-60224	Permanent Markers, Highlighters, Membership Fee	$89.41

South Feather Water and Power Agency
Checks Paid, August, 2023

Date	Check #	Vendor Name	Account	Description	Amount
8/31/2023	65148	Talley Communications	07-68-68100	Bulkhead Mount Low Power Coax Protector	$178.72
8/31/2023	65149	Valley Iron Inc. Oroville	07-00-11150/2023-0606	Metal Flat Bar, Aluminum Tread rite	$716.61
8/31/2023	65150	White Cap, L.P.	07-64-64260	Cell Backer Rods, SikaFlex, Nitrile Gloves	$525.30
8/31/2023	65151	Zoro Tools, Inc	07-63-63260	Double Row Angular Contact Ball Bearing	$617.25
8/31/2023	65152	Accularm Security Systems	01-50-50201	September 2023 Alarm Monitoring, Notifications	$197.00
8/31/2023	65153	AT&T	07-68-68251	July 2023 Energy Communication Service	$80.88
8/31/2023	65154	AT&T Mobility	01-50-50251	7/19/23 - 8/18/23 Cell Phone Service	$249.03
8/31/2023	65155	Better Deal Exchange	01-53-53260	Rake, Trash Bags, Raid Wasp Spray, Water proofer	$168.59
8/31/2023	65156	Bobcat of Chico	01-56-56150	Oil Seals, Bushings, Washers - E150	$430.64
8/31/2023	65157	BSK Associates	01-53-53201	MRTP/BTP Perchlorate Package	$114.00
8/31/2023	65158	CDW Government, Inc.	01-53-53100	Lenovo Think Pad, Remote Laptop, Recycle Fee	$1,960.22
8/31/2023	65159	Core & Main	01-00-22300	Full Circle Redi-Clamps	$1,948.99
8/31/2023	65160	Cranmer Engineering, Inc.	01-53-53201	Colilert P/A 18hr Testing - MRTP	$330.00
8/31/2023	65161	Francotyp-Postalia, Inc.	01-50-50171	8/20/23 - 11/19/23 Postage Machine Rental	$146.14
8/31/2023	65162	Home Depot Credit Service	07-64-64100	Conduits, Concrete Mix, Fittings, Lumber, PVC Pipe	$1,259.04
8/31/2023	65163	Jimmy P Tools LLC	01-56-56274	Retaining Ring Plier Set - T-307, Brake Pad Spreader	$398.17
8/31/2023	65164	Minasian Law	01-50-50208	July 2023 Professional Services	$9,313.80
8/31/2023	65165	Napa Auto Parts	01-56-56150	Fuses, Windshield Wipers, V-Belt	$173.81
8/31/2023	65166	Northern Calif. Gloves	01-54-54103	Hip Boots	$142.02
8/31/2023	65167	Orkin Pest Control	01-53-53201	August 2023 Pest Control Service	$95.00
8/31/2023	65168	P G & E	01-54-54250	7/1/23 - 8/22/23 Service	$14,474.21
8/31/2023	65169	Pace Supply Corp.	01-00-22300	Full Circle Clamp	$789.00
8/31/2023	65170	Ramos Oil Co.	01-56-56160	Fuel, Diesel	$3,164.72
8/31/2023	65171	Tehama Tire Service, Inc.	01-56-56150	1 New Tire - E224	$150.60
8/31/2023	65172	Vista Net, Inc.	01-58-58100	Visio 2021 Standard - Water	$664.95
8/31/2023	65173	W.G. Civil Engineers, Inc.	01-54-54201	Professional Svcs through 08/23/23	$1,247.85
8/31/2023	65174	White Cap HDS Const. Supply	01-54-54295	Fast Setting Hydraulic Cement	$505.89
8/31/2023	65175	AFLAC	01-00-22915	Employee Supplemental-Disability/Life - PR 8/25/23	$1,556.12
8/31/2023	65176	Empower Annuity Ins Co of America	01-00-22908	PR 8/25/23 Employee 457 Contributions	$100.00
8/31/2023	65177	IBEW #1245	01-00-25207	August 2023 Member Dues	$6,444.93
8/31/2023	65178	Mission Square Retirement	01-00-22908	PR 8/25/23 Employee 457 Contributions	$1,530.85
8/31/2023	65179	Nationwide Retirement	01-00-22908	PR 8/25/23 Employee Contributions	$2,165.90
8/31/2023	65180	Reliance Standard Life	01-50-50402	September 2023 Employee Life Insurance	$923.19
8/31/2023	65181	Standard Insurance	01-50-50403	September 2023 Employee Disability Insurance	$3,069.56
8/31/2023	65182	State of California Franchise Tax Board	01-00-25209	State of California - FTB	$805.44
8/31/2023	65183	State of California Franchise Tax Board	01-00-25209	State of California - FTB	$914.89
8/31/2023	230808	CalPERS	07-60-60201	GASB 68 Service, Measurement Date: 6/30/2023	$700.00
8/31/2023	230809	CalPERS	01-50-50413	PR 8/25/23 Classic/PEPRA Cont., Retro, Svc Credits	$50,284.86
8/31/2023	230810	CalPERS 457 Plan	01-00-22908	PR 8/25/23 Employee 457 Contribution	$3,113.95
8/31/2023	230811	Lincoln Financial Group	01-00-22908	PR 8/25/23 Employee 457 Contribution	$1,195.36
				Total August, 2023 Checks	1,476,156.27

SOUTH FEATHER WATER AND POWER AGENCY
PAYROLL
AUGUST, 2023

PAYROLL STATE & FED TAXES	$	167,921.01
PAYROLL NET		324,746.22
TOTAL AUGUST, 2023	$	492,667.23

CREDIT CARD DETAIL
AUGUST, 2023 PAYMENTS

Check #	Date	Description		Amount
65044	8/18/2023	Bank of America - Bank Card		
		Impeller Service Kit For Boat Motor	$	15.54
		Leveling Lift Kit For T#212		53.61
		Honda Belt Timing For Boat Motor		68.63
		Impellers For Sump Pumps		82.58
		No Camping Signs		115.80
		Employee Coveralls For One Employee		193.03
		Lodging Deposit - Dam Safety Conf.		198.79
		Trailer Flooring & Floor Glue		654.12
		2023 Dam Safety Conf. 9/18 - 21/23		1,190.00
		Transport 2 New Trucks-Douglass Truck		1,905.50
			$	4,477.60
65083	8/18/2023	U.S. Bank		
		7/14/23-8/13/23 Video Conf. Service	$	16.71
		Thermometer With Case		68.98
		Satellite Internet Service		120.00
		Staff Gages		562.31
		Pre Paid Envelopes (10 Boxes)		4,006.30
			$	4,774.30

SOUTH FEATHER WATER & POWER AGENCY

TO: Board of Directors

FROM: Rath Moseley, General Manager

DATE: September 19, 2023

RE: Water Rates Technical Consulting Services
Agenda Item for 9/26/23 Board of Directors Meeting

Three proposals were received in response to SF's request for technical services to assist in an updated water rates study. The proposals were reviewed, scored, weighted and ranked on the criteria below.

- Cost: Scope of Services: Clear and Accurate?
- Schedule: Is the schedule achievable with defined milestones?
- Performance: Prior experience with services requested?

Scores (0-100) and Cost

Gannett Fleming – (68) $51,340
Ludorff Scalaminini - (47) $68,750
Bartle Wells Associates – (78) $54,925

Based on the overall scores of each submission, staff recommendation would be issue a Notice to Proceed with Bartle Wells. They have as a core competency a finance/accounting background and provided local references for recent water rates studies performed.

The following action is being requested:

"I move approval to authorize the General Manager to execute a "Notice to Proceed" agreement with Bartle Wells Associates in the amount of $54,925."

Proposal to South Feather Water & Power Agency for a Water Rate Study

August 16, 2023

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

2625 Alcatraz Ave, #602
Berkeley, CA 94705
Tel 510 653 3399
www.bartlewells.com

August 16, 2023

Rath Moseley, General Manager
South Feather Water & Power Agency
2310 Oro-Quincy Hwy
Oroville, CA 95966

Re: Proposal to Conduct a Water Rate Study

Bartle Wells Associates (BWA) is pleased to submit this proposal to develop a water rate study for South Feather Water and Power Agency ("SFWPA"). BWA has over 50 years of experience providing independent financial and utility rate consulting services to over 500 California water and wastewater agencies.

Our overall goal for this project would be to work closely with the SFWPA project team to evaluate alternatives and their impacts, gain ongoing input, and build consensus for final recommendations. We have helped numerous agencies develop strategic financial plans to address escalating costs related to operations and long-term infrastructure needs. We have also assisted many agencies in modifying their existing rate structures to provide a better balance of revenue stability, customer equity, and compliance with the evolving interpretations of Proposition 218. Our rate studies are based on a comprehensive analysis of each agency's costs, customer base characteristics, and demands to ensure rate structure recommendations reflect local needs and objectives.

We propose to assign Alex Handlers as principal for this project and Michael DeGroot as project manager. Alex is a firm principal with over 20 years of expertise in utility rates and finance. Michael DeGroot is a senior project manager with 10 years of experience conducting water and wastewater rate and capacity fee studies in California. He specializes in developing long-term financial models and utility rates based on a cost-of-service approach.

We are very interested in working with SFWPA on this project and are available to start working at the SFWPA's direction. Please do not hesitate to contact us if you have any questions or need additional information.

Sincerely,

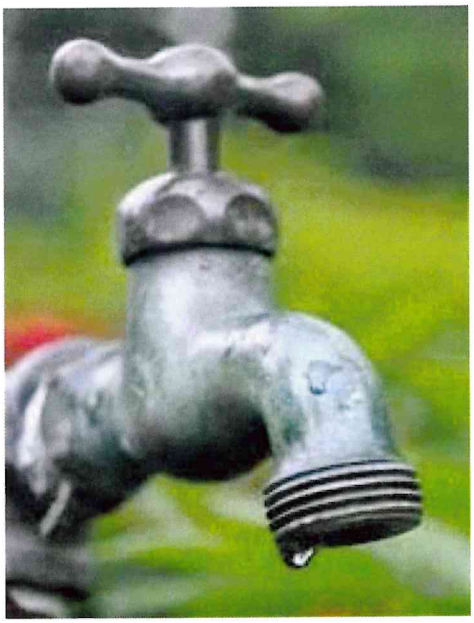
Alex Handlers

Alex Handlers, MPA, CIPMA
Principal/Vice-President

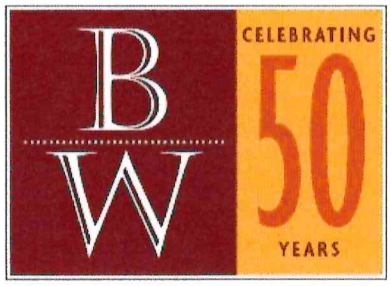
Michael DeGroot

Michael DeGroot,
Vice President

Table of Contents



Bartle Wells Associates Contact Information



Bartle Wells Associates
2625 Alcatraz Ave #602
Berkeley, CA 94705
510.653.3399

BWA Contacts
Alex Handlers, MPA, CIPMA
Tel: 510.421.1313
E-mail: alex@bartlewells.com

Michael DeGroot
Tel: 510.653.3399 (x114)
E-mail: michael@bartlewells.com

Bartle Wells Associates was established in 1964 and is a California Corporation and certified State of California Small Business. Our Federal Tax ID number is 94-1664409.

QUALIFICATIONS

BARTLE WELLS ASSOCIATES

Leaders in Water, Wastewater & Stormwater Rates and Finance

Bartle Wells Associates (BWA) is an independent financial advisory firm with expertise in the areas of water, wastewater, and solid waste finance. BWA was established in 1964 and has over 50 years of experience advising cities, special districts, and other agencies on the complexities and challenges in public finance. We have advised over 600 public agency clients throughout California and the western United States. We have a diversity of abilities and experience to evaluate all types of financial issues faced by local governments and to recommend the best and most-practical solutions.

Bartle Wells Associates has a highly qualified professional team of five consultants. Our educational backgrounds include finance, civil engineering, business, public administration, public policy, and economics.

BWA specializes in three professional services: utility cost-of-service rate and fee studies, financial plans, and project financing. We are one of the few independent financial advisors providing *all three* of these interrelated services to public agencies.

RATE AND FEE STUDIES Our rate studies employ a cost-of-service approach and are designed to maintain the long-term financial health of a utility enterprise while being fair to all customers. We develop practical recommendations that are easy to implement and often phase in rate adjustments over time to minimize the impact on ratepayers. We also have extensive experience developing impact fees that equitably recover the costs of infrastructure required to serve new development. BWA has completed hundreds of utility rate and fee studies. We have helped communities implement a wide range of rate structures and are knowledgeable about the legal requirements governing rates and impact fees. We develop clear, effective presentations and have represented public agencies at hundreds of public hearings to build consensus for our recommendations.

FINANCIAL PLANS Our financial plans provide agencies with a flexible roadmap for funding long-term operating and capital needs. We evaluate the wide range of financing options available, develop a plan that recommends the best financing approach, and clearly identify the sources of revenue for funding projects and repaying any debt. We also help agencies develop prudent financial policies, such as fund reserve targets, to support sound financial management. BWA has developed over 2,000 utility enterprise financial plans to help public agencies fund their operating and capital programs, meet debt service requirements, and maintain long-term financial health.

PROJECT FINANCING Our project financing experience includes over 300 bond sales and numerous bank loans, lines of credit, and a range of state and federal grant and loan programs. We generally recommend issuing debt via a competitive sale process to achieve the lowest cost financing possible. To date, we have helped California agencies obtain over $5 billion of financing via bonds, bank loans/private

NAMA
NATIONAL ASSOCIATION OF MUNICIPAL ADVISORS

placements, lines of credit, low-rate State Revolving Fund Loans, and other funding programs. We work only for public agencies; we are independent financial advisors and do not buy, trade, or resell bonds. Our work is concentrated on providing independent advice that enables our clients to finance their projects on the most favorable terms—lowest interest rates, smallest issue size, and greatest flexibility.

Bartle Wells Associates is a charter member of the ***National Association of Municipal Advisors*** (NAMA), which establishes strict criteria for independent advisory firms. All of our lead consultants are *Certified Independent Professional Municipal Advisors* and are Registered Municipal Advisors.

BWA has served over 550 public agencies throughout California and the western United States.

Bartle Wells Associates is committed to providing value and the best advice to our clients. Our strength is *quality*—the quality of advice, service, and work we do for all our clients.

EXPERIENCE BWA has extensive experience developing long-term financial plans, utility rates, and capacity fees for public agencies from all areas of California and the western U.S. In recent years, we have completed assignments for many agencies including:

Sample Water/Sewer Districts

- Sewerage Commission – Oroville Region
- Thermalito Water & Sewer District
- Browns Valley Irrigation District
- Ramona Municipal Water District
- San Diego County Water Authority
- Joshua Basin Water District
- Casitas Municipal Water District
- South San Luis Obispo County Sanitation District
- Silicon Valley Clean Water
- Santa Ynez River Water CD, ID#1
- Cucamonga Valley Water District
- San Miguel Community Services District
- Big Bear Area Regional Wastewater Agency
- Moulton-Niguel Water District
- Sonoma County Water Agency
- Helix Water District
- Lake Arrowhead Community Services District
- Indian Wells Valley Water District
- East Bay Municipal Utility District
- West Valley Sanitation District
- San Francisco Public Utilities Commission

Sample Cities

- City of Modesto
- City of Santa Barbara
- City of San Clemente
- City of Hemet
- City of Fresno
- City of Palm Springs
- City of Poway
- City of Imperial
- City of Port Hueneme
- City of Redwood City
- City of Hesperia
- City of Glendale
- City of Brawley
- City of Chula Vista
- City of Morro Bay
- City of Vacaville
- City of San Carlos
- City of Monterey
- City of Mountain View
- City of Lancaster
- City of Foster City

PROJECT TEAM

BWA uses a ***team approach*** for most projects, typically assigning two consultants to each assignment, including at least one principal consultant. Our general project approach is to work closely with staff and other members of the project team to identify objectives, set milestones, have frequent communication, and remain flexible to resolve unanticipated issues.

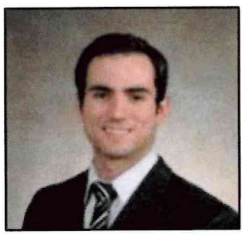
Bartle Wells Associates has a highly qualified professional team. Our education and backgrounds include finance, civil engineering, business, public administration, public policy, and economics. Bartle Wells Associates has a long track record of completing projects on time and on or under budget.

Our consulting staff is available to assist on this project as needed to ensure all project work and deliverables are completed on schedule.

Alex Handlers, Principal

Alex Handlers is a principal and vice-president of BWA with over 20 years of experience assisting cities and special districts with strategic financial plans and utility rate studies. He has consulted for more than 150 California agencies. Alex has substantial experience working with public agency staff and governing bodies to build understanding and consensus for recommendation. He is a Certified Independent Professional Municipal Advisor and Board Member of the National Association of Municipal Advisors.

Michael DeGroot, Senior Project Manager



Michael DeGroot is a vice president of BWA with 10 years of experience conducting water and wastewater rate and capacity fee studies in California. He specializes in developing long-term financial models and utility rates based on a cost-of-service approach.

ALEX HANDLERS, MPA, CIPMA

Principal & Vice President

Alex Handlers is a principal and vice president of Bartle Wells Associates with expertise in the areas of utility rates and finance. He has extensive experience assisting public agencies with development of long-term strategic financial plans, utility rate studies, and development impact fees for utility enterprises. Alex has helped agencies implement a wide variety of water and sewer rate and fee structures and is knowledgeable about the legal requirements of rates and fees. He has managed projects for over 150 cities, counties, and special districts and has extensive experience working with city councils, governing boards, and citizen advisory and community organizations to gain input and build consensus for recommendations.

Alex is also an independent financial advisor with expertise evaluating financing alternatives for capital programs and helping agencies secure low-cost debt financing. He is an MSRB-Registered Municipal Advisor, a Certified Independent Professional Municipal Advisor, and a current Board Member of the National Association of Municipal Advisors. He has helped public agencies obtain over $2 billion in financing via issuance of bonds, COPs, bank loans/private placements, lines of credit, and a range of state and federal funding programs including California's State Revolving Fund Loan Program, USDA, I-Bank, and WIFIA.

Education

M.P.A. - University of Washington
B.A. - Lehigh University

Certifications

Board Member – National Association of Municipal Advisors
CIPMA – Certified Independent Professional Municipal Advisor
MSRB-Registered Municipal Advisor (Series 50)

Representative Projects

- **City of Paso Robles**: Developed comprehensive water and sewer rate studies. Evaluated water and sewer rate structures including a range of fixed and usage-based residential rate alternatives. Final recommendations included multi-year rate increases and a phase-in of increased fixed service charges to improve financial stability and better reflect the cost of providing service.
- **City of San Mateo:** Developed a financial plan and rate study supporting funding for a $900 million wastewater capital improvement program needed to improve wet weather capacity and rebuild the City's aging wastewater treatment plant. Transitioned residential sewer rates from 100% volumetric rates (subject to a minimum charge) to a hybrid 50% fixed & 50% volumetric rate structure.
- **City of Benicia:** Developed comprehensive water and wastewater financial plans and rate studies leading to adoption of a 5-year phase-in of rate increases and revisions to the water and sewer rate structures designed to reflect the cost of providing service. Evaluated rate impacts under a range of capital improvement funding scenarios. Updated water and wastewater capacity charges.
- **San Francisco Public Utilities Commission:** Developed financial projections supporting issuance of over $3 billion of bonds used to fund a $4.3 billion upgrade to the Hetch-Hetchy regional water system and improvements to the City's wastewater system and Hetch-Hetchy power facilities.

Alex Handlers, continued

- **City of Petaluma:** Developed water and wastewater financial plans and rate studies designed to support escalating operating expenses and updated Master Plan capital improvement needs. Recommendations included a 5-year phase-in of gradual base City rate increases plus automatic future passthrough adjustments for wholesale water costs and inflation. Developed new Water Shortage Contingency Plan rate adjustments designed to support financial stability during droughts and water shortages.
- **City of Burlingame:** Developed 10-year water and sewer enterprise financial projections and rate studies. Developed new water and sewer capacity charges levied on new development.
- **South Tahoe Public Utility District:** Serves as independent financial advisor on competitive and negotiated bonds sales and 5 competitively bid private placements generating over $50 million to fund water and sewer capital improvements and refinance outstanding debt to achieve savings.
- **City of San Carlos:** Developed a sewer enterprise financial plan and rate study designed to support sewer collection system capacity improvements, long-term pipeline replacements, and over $120 million for the City's share of costs for rebuilding the regional wastewater treatment plant. Evaluated residential rate structure alternatives. Updated the sewer capacity charges levied on new development. Developed solid waste rate recommendations to support increased funding requirements and improve rate equity between customer classes and cart sizes.
- **City of Mountain View:** Developed 10-year water and wastewater financial plans and rate studies. Evaluated water and sewer rate structures and recommended modifications to improve rate equity and compliance with Prop. 218. Updated the City's water and wastewater connection fees.
- **City of South San Francisco:** Developed a 10-year wastewater financial plan and rate study with a gradual phase in of rate increases to support operating and capital improvement funding needs.
- **South San Luis Obispo County Sanitation District:** Developed a long-term financial plan and wastewater rate recommendations supporting the funding of a major capital upgrade to a regional wastewater treatment plant serving the Cities of Arroyo Grande, Pismo Beach, and the Oceano Community Services District. Serves as independent financial advisor on issuance of $27 million of wastewater revenue bonds and a low-interest rate USDA Loan.
- **City of Millbrae:** Developed water and sewer rate studies and revised the City's Clean Bay Charges levied to fund improvements designed to eliminate sanitary sewer system overflows during storms.
- **City of Morro Bay:** Developed 10-year water and wastewater financial plans and rate studies supporting construction of a new $145 million Water Reclamation Facility and recycled water infrastructure. Evaluated water and sewer rate structures and recommended modifications based on a cost of service analysis. Updated the City's water and wastewater connection fees. Served as financial advisor assisting the City on securing roughly $130 million of low-interest rate financing through two WIFIA loans and a Clean Water State Revolving Fund loan.
- **Arvin-Edison Water Storage District:** Developed financial plan to support $60 million of projects to address Sustainable Groundwater Management Act (SGMA) compliance. Served as financial advisor on 5 private placement bank loans generating over $70 million for capital improvements, the District's buyout of USBR water supply facilities, and various debt refinancings to achieve savings.
- **City of North Miami Beach:** Developed water and sewer financial plans and rate studies designed to support each utility's updated capital improvement programs and a substantial increase in costs for wastewater treatment provided by Miami-Dade County.
- **Joshua Basin Water District:** Developed long-term financial plans and water rate studies supporting increased capital needs and imported water supply water coupled with rate structure modifications to provide additional conservation incentive. Worked with a Citizens Advisory Council to evaluate alternatives and develop final recommendations.

MICHAEL J. DEGROOT

Senior Project Manager

Michael DeGroot is a Senior Project Manager and registered Municipal Advisor with Bartle Wells Associates. He specializes in developing long-term financial plans, water and wastewater rates, and development impact fees for cities and special districts. Mr. DeGroot has ten years of experience working with a wide range of California public agencies. He works closely with City staff, engineers, lawyers, and other consultants to develop financial projections and rate recommendations including equitable rate structures for water and sewer enterprises.

Education

B.S., Business Administration – U.C. Berkeley Walter A. Haas School of Business, Berkeley, CA

Representative Projects

- **Thermalito Water and Sewer District:** Water and sewer rate study and sewer capacity fees.
- **Sewerage Commission – Oroville Region:** Sewer rate study.
- **City of Santa Barbara:** Water rate study and water and sewer capacity fees.
- **Casitas Municipal Water District:** Water rate study.
- **City of Patterson:** Water rate study and water, wastewater, and stormwater capacity fee studies.
- **City of Foster City:** Water and sewer rate study and analysis of alternative rate structures.
- **City of Colma:** Sewer rate study and evaluation of fixed and volumetric rate structure alternatives.
- **Fairfield-Suisun Sewer District:** Sewer rate and capacity fee study.
- **West Valley Sanitation District:** Detailed financial plan, including debt funding alternatives for significant expenditure projections related to the $2 billion wastewater facility upgrade.
- **City of Benicia:** Sewer rate analysis and drought rate alternatives.
- **Stege Sanitary District:** Sewer rate study.
- **Palmdale Water District:** Water rate study.
- **City of Fresno:** Water capacity fees.
- **Crestline Sanitation District:** Sewer rate study.
- **Malaga County Water District:** Water and sewer rate study and capacity fees.
- **Sutter Community Services District:** Water rate study and financial plan.
- **City of Hughson:** Water rate study and SRF loan support.
- **Grizzly Flats CSD:** Water rate study.
- **City of Santa Clarita:** Feasibility study of the City's takeover and operation of its sewer enterprise from LACSD.
- **Mariposa County:** Water and sewer financial plans for six utilities and funding plan for roads.
- **City of Pacifica:** Sewer rate and capacity fee study.
- **Root Creek Water District:** Benefit Assessment District formation support.
- **City of Placerville:** Water and wastewater rate study.
- **City of Angels Camp:** Water and wastewater rate study.
- **Castro Valley Sanitary District:** Financial plan and financial adviser for revenue bond issue.
- **Oro Loma Sanitary District:** Financial plan and financial adviser for revenue bond issue.

Sewerage Commission – Oroville Region

The Sewerage Commission – Oroville Region (SC-OR) retained Bartle Wells Associates ("BWA") to develop a financial plan and cost of service study for SC-OR's wastewater rates to ensure financial stability over the next five years (FY 2023/24 to FY 2027/28).

SC-OR operates and maintains the Oroville area wastewater treatment plant under the authority of a Joint Powers Agreement between the City of Oroville (City), Lake Oroville Area Public Utility District (LOAPUD) and Thermalito Water and Sewer District (TWSD). The City, LOAPUD and TWSD bill wastewater customers for the cost of operating and maintaining the wastewater treatment plant and the cost of operating and maintaining each entity's wastewater collection system.

Michael DeGroot served as Project Manager.

Reference:
Glen Sturdevant, Plant Manager
P.O. Box 1350 (mailing address)
2880 South 5th Avenue (plant)
Oroville, CA 95965
(530) 534-0353

Thermalito Water and Sewer District

Thermalito Water and Sewer District ("The District") retained Bartle Wells Associates ("BWA") to develop a financial plan and cost of service study for the District's water and wastewater rates to ensure financial stability over the next five years (FY 2023/24 to FY 2027/28).

The District provides water treatment, distribution services, and wastewater collection to residents within the area of the City of Oroville north and west of the Feather River as well as within the adjacent unincorporated areas of Butte County. The Wastewater Enterprise contracts with the Sewerage Commission – Oroville Region (SCOR) to provide wastewater treatment. Treatment charges are collected by the District and passed on to SCOR.

Michael DeGroot served as Project Manager.

Reference:
Chris Heindell, P.E.
410 Grand Avenue
Oroville, CA 95965
(530) 533-0740

PROJECT WORK PLAN

This section presents a draft work plan and scope of services that we believe forms a sound basis for completing a comprehensive Water Rate Study. Bartle Wells Associates can work with SFWPA to finalize a scope of services that meets SFWPA's objectives. Our general project approach is to work closely with staff and other members of the project team, identify objectives, set milestones, have frequent communication, and remain flexible to resolve unanticipated issues.

Phase 1. Project Initiation & Data Collection

1. **Project Team Orientation**

To initiate our work, hold a meeting with SFWPA staff and others as appropriate, to accomplish the following:

- Identify members of SFWPA staff and others who will participate in the project.
- Determine the roles and responsibilities of all project participants.
- Identify other parties that may have a significant interest in the project, such as community groups, business organizations, developers, and large customers.
- Establish project schedule and key milestone dates.
- Confirm the key goals and expectations of the project team.

BWA recommends holding the kickoff meeting after we have reviewed preliminary information. This will enable the kickoff meeting to be more substantive and facilitate more in-depth discussion of key issues and preliminary observations and potential alternatives.

2. Investigation and Data Collection

Assemble the information necessary to understand SFWPA's water systems, finances, customers and usage, rate and fee structures, capital improvement needs and alternatives, and legal agreements. Assistance and cooperation of SFWPA staff will be needed to assemble the relevant background information. The objectives of investigation and data collection are to develop a complete understanding of SFWPA's utilities and finances, and to reach an agreement on basic assumptions to be used in the study as well as key alternatives for evaluation.

Phase 1 Deliverables Include:

- Project kickoff meeting
- Identification of project goals and objectives
- Identification of key issues impacting the study
- Project schedule and budget
- Project team contact list
- Summary of current and historical rates and finances

Phase 2. 10-Year Financial Plans

1. Develop Forecasts and Projections

Based on evaluation of the data assembled and input provided by SFWPA, prepare forecasts and projections to be used in the development of financial models for SFWPA's water utilities. Develop projections for the following areas (and others as appropriate). Review projections and alternatives with SFWPA staff for agreements on assumptions, interpretation of data, and completeness of approach.

- **Capital Improvements Including Long-Term Repairs & Replacements:** Based on input from SFWPA staff, identify future capital improvement program costs or alternatives to include in the financial analysis and determine a reasonable amount to include for future, ongoing capital repairs and

replacements. BWA often recommends that agencies phase in funding for long-term system rehabilitation.

- **Projected Demand:** With SFWPA input, forecast water demand. Identify future demand scenarios for evaluation.
- **Growth & New Development:** Work with the SFWPA to identify levels of growth to incorporate in the financial projections. Evaluate financial impacts under different levels of growth.
- **Projected Water Supply Costs:** Review historical and projected costs of water supply. Work with SFWPA to develop projections or a range of projections for inclusion in the water rate study.
- **Cost Escalation Factors:** Review historical cost trends and work with project team to develop reasonable cost escalation factors for both operating and capital expenditures. Work with SFWPA staff to identify any anticipated changes in future staffing, benefits, and/or other operating costs.

2. Evaluate Financing Alternatives for Capital Improvements

Evaluate options for financing capital improvement projects. Our evaluation will:

- Allocate capital improvement costs to existing customers and new development based on the share of each project benefiting current vs. future customers.
- Estimate the amount and timing of any debt, if needed, to finance capital projects.
- Evaluate the alternative borrowing methods available including bonds, COPs, state, and federal loan programs (including the State Revolving Fund Financing Program), bank loans and lines of credit, and other options.
- Recommend the appropriate type of debt, its term and structure.
- As needed, develop debt service estimates to incorporate in the financial projections.

The 10-year financial plans will serve as financial roadmaps for funding future operating and capital programs while supporting long-term financial stability.

3. Establish Prudent Minimum Fund Reserve Targets

Evaluate the adequacy of the SFWPA's current utility fund reserves. Establish prudent minimum fund reserve targets based on the SFWPA's operating and capital funding projections. Develop an implementation plan for achieving and maintaining the recommended reserve fund levels.

4. Develop 10-Year Financial Projections & Evaluate Scenarios

Develop 10-year cash flow projections showing the financial position of the water utilities over the next 10 years. The cash flow will project fund balances, revenues, expenses, and debt service coverage, and will incorporate the forecasts developed with staff input. After developing a base-case cash flow scenario, we can model alternatives for additional evaluation such as capital improvement alternatives, project financing alternatives, the impacts of various levels of water demand, etc. During this phase, BWA will work closely with the project team to evaluate financial and rate projections under alternative scenarios.

5. Evaluate Rate Increase Options

Based on the cash flow projections, determine future annual revenue requirements from rates and project the overall level of required rate increases. Evaluate rate adjustment alternatives, such as gradually phasing in required rate increases over a number of years. If appropriate, evaluate different levels of rate increases and their impacts on the SFWPA's ability to fund future operating and capital needs.

Phase 2 Deliverables Include:

- Summary of 10-year capital improvement plans and/or key alternatives
- Evaluation of financing alternatives for capital improvements
- Minimum fund reserve target recommendations
- 10-year financial projections with supporting tables
- Evaluation of alternative financial scenarios as needed
- Evaluation of rate increase options
- Meet with SFWPA's project team to present findings, discuss alternatives, and gain input

Phase 3. Cost of Service Rate Design

1. Identify Rate Structure Alternatives

Review the SFWPA's current water rate structures and discuss advantages and disadvantages compared to other rate approaches. Identify potential alternatives and modifications that could help improve rate equity, address SFWPA concerns, or help achieve other SFWPA objectives. Discuss pros and cons of different rate structure options and their general impacts on different types of customers. Rate structure options can be refined as the study progresses based on input from the project team.

2. Conduct Survey of Regional Utility Rates

Review and summarize utility rates of other regional agencies. Summarize results in tables and charts.

3. Analyze Consumption & Utility Billing Data

Analyze current and historical usage and utility billing data to determine reasonable and conservative estimates of water demand to use in developing financial projections and rates. Water use can fluctuate from year to year depending on various factors such as weather and local and regional conservation efforts. Ideally, we would prefer to analyze multiple years of utility billing data to determine slightly conservative demand projections and evaluate water and sewer demands under various normal year and water shortage scenarios.

Rates will be developed based on a cost-of-service approach designed to equitably recover the cost of providing service to all customers and comply with Proposition 218.

4. Cost of Service Rate Derivation

BWA has helped many agencies develop utility rates designed to reflect the costs of providing service, be fair and equitable to all customers, and comply with Proposition 218 and other legal requirements. In recent years, we have worked collaboratively with several legal experts to ensure our recommendations account for the latest legal understanding of Proposition 218. For this task, we will derive proposed rates based on a defensible cost of service methodology. A key component of this task includes allocating operating, maintenance, capital, and debt service expenses for cost recovery from appropriate rate components.

- Water rates will be based on a) an allocation of costs to be recovered from fixed vs. variable charges, b) fixed charge apportioned based on meter size and capacity, and c) a cost-based justification to support the SFWPA's water usage charges.

5. Develop Preliminary & Final Rate Recommendations with SFWPA Input

Based on evaluation of rate structure alternatives and the overall level of rate increases identified in the financial plans, develop draft rate recommendations for SFWPA input. The recommendations may include a multi-year phase in of both overall rate increases and proposed rate structure adjustments to help mitigate the annual impact on ratepayers. Revise recommendations based on input received. Final rate recommendations will be designed to:

a) fund the costs of providing service, including operating, capital, and debt service funding needs
b) be fair and equitable to all customers,

c) provide a prudent balance of conservation incentive and revenue stability,
d) be easy to understand and administer, and
e) comply with the substantive requirements of Proposition 218.

It is important to recognize that some rate design objectives e.g., revenue stability and conservation incentives, can be in competition and it is crucial to find rates which strike a balance between competing objectives that is right for the SFWPA.

6. Evaluate Rate Impacts on a Range of SFWPA Customers
Calculate the impacts of each rate alternative on a range of SFWPA customers Discuss additional rate structure adjustments that may reduce the impact on certain customers if warranted.

Phase 3 Deliverables Include:

- Evaluation of current utility rates and potential rate structure modifications
- Regional utility rate surveys
- Analysis of historical consumption and utility billing data
- Cost of service analysis to support equitable and legally defensible rates
- Development of draft water and wastewater rate alternatives for SFWPA evaluation and input
- Meet with SFWPA to discuss findings and alternatives, gain input, and develop

Phase 4. Meetings, Reports, Presentations, Model and Rate Implementation

1. Project Team/Progress Meetings (online meetings as needed)
Attend Project Team/Progress Meetings to present findings, discuss alternatives and preliminary recommendations, and gain ongoing input. BWA will participate in conference calls and online meetings as needed to the extent allowable within the project budget.

2. Board Meetings/Staff and Public Workshops (Up to 4 meetings with the Board, Staff, and the Public)
Attend meetings with SFWPA's staff to present findings, recommendations, and alternatives, as well as to receive input. Incorporate input as warranted to ensure final recommendations reflect the Board's preferences. Present revised recommendations at a subsequent Board Meeting with the goal of gaining Board approval to move forward with the Proposition 218 process to adopt rate increases.

3. Financial Planning Models
BWA will provide user-friendly models customized to the needs of SFWPA. BWA has developed numerous rate and financial models for utility enterprises. We have found that keeping a model as straightforward as possible, without unnecessary complexity, can increase the model's usability and improve effectiveness as an in-house planning tool. BWA's philosophy is that models should flow in a way that is easy to understand, reliable, and provides relevant outputs.

4. Prepare Draft & Final Reports
Develop a draft report summarizing study objectives, findings, and draft recommendations. The report will provide an administrative record supporting the proposed utility rates and will be developed to demonstrate compliance with applicable legal requirements of Proposition 218, Proposition 26, and Government Code 66013. The report will be written for a non-technical audience and will clearly explain the rationale for recommendations and key alternatives when applicable. Submit a draft report for SFWPA review and feedback. Incorporate input into a revised report and ultimately provide the SFWPA with printed and electronic copies as needed. The report will be provided in PDF format and can also be provided in editable Word and Excel files.

5. Proposition 218 Rate Notice

Develop a draft Proposition 218 notice for SFWPA review. Incorporate revisions and develop a final notice. BWA recommends the notice goes beyond the minimum legal requirements and provides a clear and concise explanation of the reasons for any rate adjustments. BWA has helped many agencies adopt rates via the Proposition 218 process. We have found that ratepayers are generally much more accepting of rate increases or rate structure modification when they understand the reasons underlying the adjustments. BWA also helps agencies coordinate the printing and mailing of the Proposition 218 notices and will remain available to assist the SFWPA with these services on a time and materials basis as needed.

6. Proposition 218 Rate Hearing

Attend the Proposition 218 Public Rate Hearing and remain available to present a summary of findings and recommendations and respond to the Board and public comments. BWA has extensive experience presenting financial and rate recommendations to non-technical audiences, dealing with challenging questions, and building acceptance for final recommendations.

7. Public Education and Consensus-Building

Rate and fee adjustments are often controversial. BWA has helped many agencies with their public education and outreach efforts regarding rate and fee increases. We understand the importance of building consensus and public acceptance for our recommendations and can assist the SFWPA in any outreach and public education efforts.

Phase 4 Deliverables Include:

- Conference calls and online meetings as needed
- Four (4) Meetings with SFWPA's Finance Committee, the public, and the Board
- Financial Planning Models
- Draft and final reports summarizing key findings and recommendations and demonstrating compliance with legal requirements for rates
- Draft of the required Proposition 218 Notice of proposed rate increases
- One (1) Public Hearing

Project Schedule

Provided below is a draft timeframe for completion of the Project. BWA will work with the City to develop a final schedule designed to meet the District's objectives.

Project Task	September				October				November			
Research												
Water												
Connection Fees												
Draft, Revised, & Final Reports												
Kickoff Meeting & Workshops												
Board Meetings												
Prop. 218 Notice & Hearing												

Proposed Project Budget

This section presents a proposed budget. *A final budget can be developed with input from the SFWPA to ensure the project cost is in line with SFWPA objectives and expectations.*

PROJECT TASK	Estimated Hours	A. Handlers @ $275/hr	M. DeGroot @ $235/hr	Total Cost
TASK A. PROJECT INITIATION & DATA COLLECTION	**20**	**5**	**15**	**$4,900**
1. Project Team Orientation				
2. Investigation & Data Collection				
TASK B. WATER FINANCIAL PLANS	**40**	**15**	**25**	**$10,000**
1. Develop Forecasts & Projections				
2. Evaluating Financing Alternatives for Capital Improvements				
3. Review Minimum Fund Reserve Targets				
4. Develop 10-Year Financial Projections				
5. Evaluate Rate Increase Options				
6. Develop Financial & Rate Models				
TASK C. WATER RATE STUDIES	**45**	**20**	**25**	**$11,375**
1. Identify Rate Structure Modifications & Alternatives				
2. Conduct Survey of Regional Water Rates				
3. Allocate Costs to Billing Parameters for Each Utility				
4. Develop Preliminary & Final Rate Recommendations				
5. Evaluate Rate Impacts on Customers				
Task D: WATER CONNECTION FEE UPDATE	**65**	**25**	**40**	**$16,275**
1. Investigation and Data Collection				
2. Review Current Capacity Fees & Procedures for Applying Fees				
3. Evaluate Alternative Capacity Charge Methodologies				
4. Determine Current Value & Capacity of Facilities				
5. Allocate Capital Program Costs to Current & Future Users				
6. Develop Preliminary Capacity Charge Recommendations				
TASK E. RATE IMPLEMENTATION (Meetings, Presentations, Report)	**45**	**20**	**25**	**$11,375**
1. Project Team Meetings				
2. Presentations & Proposition 218 Hearing				
3. Prepare Draft & Final Reports				
4. Proposition 218 Rate Notice				
5. Public Education and Consensus-Building				
TOTAL ESTIMATED HOURS	**215**	**85**	**130**	**$53,925**
ESTIMATED DIRECT EXPENSES				
Travel/copies/binding/phone/fax/mail/miscellaneous				**$1,000**
TOTAL PROJECT COSTS				**$54,925**
Contingency/Additional Analysis/Additional Meetings (Optional)				**$5,000**

Availability & Fees

1. Bartle Wells Associates is prepared to begin work upon authorization to proceed.

2. During the project development period, Bartle Wells Associates will be available at all reasonable times and on reasonable notice for meetings and for consultation with staff, attorneys, consulting engineers, and others as necessary.

3. Bartle Wells Associates will perform all work related to the assignment. Alex Handlers will be assigned as BWA firm principal on this assignment. Michael DeGroot will serve as senior project manager and be the lead contact person for BWA and will be involved with the project on a day-to-day basis. This project team may be assisted by other BWA consultants as needed.

4. The fees for services outlined in this proposal will not exceed $54,925. The fee is based on the following assumptions:

   a. All necessary information will be provided by the client agency in a timely manner.

   b. Development of a draft, final draft, and final version of tables, presentations, and reports. Time and expenses involved in revising tables and assumptions or developing additional versions of documents may constitute additional services if not achievable within the budget.

   c. Five in-person meetings and/or presentations. Additional meetings or presentations may constitute additional services if not achievable within the budget.

5. Progress payments and direct expenses are payable on a time and materials basis as the work proceeds as provided in our Billing Rate Schedule 2023, which will remain in effect through the duration of this assignment.

6. Bartle Wells Associates will maintain in force, during the full term of the assignment, insurance as provided in the Certificate of Insurance attached.

7. If the project is terminated for any reason, Bartle Wells Associates is to be reimbursed for professional services and direct expenses incurred up to the time we receive notification of such termination.

8. This proposal may be withdrawn or amended if not accepted within 90 days of its date.

9. We will not require a formal contract of employment and will consider a letter or e-mail from an appropriate official as sufficient authority to proceed.

BARTLE WELLS ASSOCIATES
BILLING RATE SCHEDULE 2023
Rates Effective 1/1/2023

Professional Services

Financial Analyst I	$120 per hour
Financial Analyst II	$140 per hour
Associate Consultant	$160 per hour
Consultant	$180 per hour
Senior Consultant	$205 per hour
Senior Project Manager	$235 per hour
Principal Consultant	$275 per hour

The hourly rates for professional services include all overhead and indirect expenses. Bartle Wells Associates does not charge for administrative support services. Expert witness, legal testimony, or other special limited assignments will be billed at one and one-half times the consultant's hourly rate.

The above rates will remain in effect for the duration of the project.

Direct Expenses

Subconsultants will be billed at cost plus ten percent. Other reimbursable direct expenses incurred on behalf of the agency will be billed at cost plus ten percent. These reimbursable costs include, but are not limited to:

- Travel, meals, lodging
- Printing and photocopying
- Special statistical analysis
- Outside computer services
- Bond ratings
- Automobile mileage
- Messenger services and mailing costs
- Graphic design and photography
- Special legal services
- Legal advertisements

Insurance

Bartle Wells Associates maintains insurance in the amounts and coverage as provided in the attached schedule of insurance. Additional or special insurance, licensing, or permit requirements beyond what is shown on the schedule of insurance are billed in addition to the contract amount.

Payment

Fees are typically billed monthly or bi-monthly for the preceding work period and are due and payable within 30 days of the date of the invoice. A late charge of 1.0 percent per month may be applied to balances unpaid after 60 days.

SCHEDULE OF INSURANCE

Insured: BARTLE WELLS ASSOCIATES

Bartle Wells Associates will maintain in force, during the full term of the assignment, insurance in the amounts and coverage as provided in this schedule. If additional insurance is required, and the insurer increases the premium as a result, then the amount of the increase will be added to the contract price.

TYPE OF INSURANCE	COMPANY POLICY NUMBER	COVERAGES AND LIMITS	EXP. DATE
Commercial General Liability	Hartford Insurance Company Policy #35-SBA PA6857	▪ $2,000,000 General Aggregate ▪ $2,000,000 Products Comp/Op Aggregate ▪ $2,000,000 Personal & Advertising Injury ▪ $1,000,000 Each Occurrence	6/1/24
Excess/Umbrella Liability	Hartford Insurance Company Policy #35-SBA PA6857	▪ $1,000,000 Aggregate ▪ $1,000,000 Each Occurrence	6/1/24
Automobile Liability	Hartford Insurance Company Policy #35-UEC VU2842	▪ $1,000,000 Combined Single Limit	6/1/24
Workers Compensation & Employers' Liability	Hartford Underwriters Insurance Company Policy #35-WEC FG7858	Workers' Compensation: Statutory Limits for the State of California. Employers' Liability: ▪ Bodily Injury by Accident - $1,000,000 each accident ▪ Bodily Injury by Disease - $1,000,000 each employee ▪ Bodily Injury by Disease - $1,000,000 policy limit	6/1/24
Professional Liability	Axis Surplus Lines Insurance Company Policy #ENN603224	Solely in the performance of services as municipal financing consultants for others for a fee. Limit: $2,000,000 Per Occurrence & Aggregate (including defense costs, charges, and expenses)	6/1/24

SOUTH FEATHER WATER & POWER AGENCY

TO: **Board of Directors**

FROM: **Rath Moseley, General Manager**

DATE: **September 18, 2023**

RE: **FERC Security and Vulnerability Assessments, and Security Plan Updates**
Agenda Item for 9/26/23 Board of Directors Meeting

As this Board was previously informed, because the Agency's Vulnerability Assessments were last completed in 2010, and the Security Plan updates had been done internally, staff could not accurately anticipate how much this FERC required effort may cost, and therefore, the estimate included in 2023 Adopted Budget was not adequate.

At the regular May meeting, this Board approved awarding a contract to conduct the Security Assessment, Vulnerability Assessment and Security Plan Updates to Gannett Fleming, for the amount of $171,445.20.

The scope and budget was based on limited information provided to firms during the RFP and RFI process. Gannett Fleming did not receive internal documents considered Critical Energy Infrastructure (as defined by 18 CFR § 388.113) for review until after the contract was executed on June 14,2023.

Following a thorough review of all Security and Vulnerability documents, Gannett Fleming noted that we do not have, or do not have adequate compliant versions of, the FERC required:

A. Internal Rapid Response/Response Plan
B. Regional Threat Assessment
C. Consequence and Benefits Assessment
D. Structural Vulnerability Assessment
E. Estimated Population At Risk calculation

The Change brings the total contractual cost to $260,983.20, to be paid from the Joint Facilities Operating Fund. Should the Agency continue with the Security and Vulnerability updates without incorporating all of the required components, we will have to submit a certification of non-compliance annually until the aforementioned components are included.

The following action is being requested:

"I move authorizing the General Manager to approve Change Order No. 1 to the existing contract with Gannett Fleming in the amount of $89,538.00 to complete the Security and Vulnerability Assessments and Security Plan Updates in compliance with the Federal Energy Regulatory Commission (FERC) Security Program for Hydropower Projects Revision 3A guidelines and authorize the General Manager to execute the appropriate documents.

CONSULTING SERVICES AGREEMENT
AMENDMENT NO. 1
FERC COMPLIANT SECURITY ASSESSMENT, VULNERABILITY ASSESSMENT, And SECURITY PLAN UPDATES
For South Fork Power Project No 2088

This Amendment No. 1 shall supplement the original Consulting Services Agreement between Gannett Fleming, Inc. ("Consultant") and South Feather Water and Power Agency ("Agency") executed on June 14, 2023 by adding a regional threat assessment, completing a consequence and benefits assessment, developing a structural vulnerability assessment, and developing population at-risk calculations and the associated research and execution to ensure compliance with the FERC Security Program for Hydropower Projects Rev 3A requirements.

ARTICLE 1 - SCOPE

To date, Consultant has initiated the work tasks associated with Dam Safety, Security and Vulnerability Related Document Review and preparation for Physical Asset Inspections, as outlined in the original Scope and described generally in the Consultant's Proposal dated April 17, 2023. This additional scope, as outlined in Attachment A, can begin immediately upon execution, and will enhance the field inspections scheduled for August 29-31, 2023.

This Agreement shall become effective as of August 15, 2023 and shall remain in effect unless amended in writing or terminated pursuant to Article 8 of the original agreement. This Amendment, together with the Agreement, represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations or agreements, either written oral.

ARTICLE 2 - COMPENSATION

For performance of the Services, Agency shall pay Contractor a not to exceed price of $89,538.00. This compensation shall be paid to Contractor within 30 days of receipt of invoices submitted following completion of each work task outlined in Appendix A.

CONTRACTOR:	SOUTH FEATHER WATER AND POWER AGENCY:
By:	By:
William F. Foos, CPP, PSP	Rath Moseley
Title: Vice President, Security and Safety	Title: General Manager
Date:	Date:

GANNETT FLEMING

2251 Douglas Boulevard #200
Roseville, CA 9566`
P 916.677.4800

gannettfleming.com

The scope, deliverables, and schedule that were outlined in our original proposal remain unaffected, but we have adjusted the hours necessary to complete these tasks. The adjusted hours are detailed in the table below:

Task	Task Description	Rate Explanation	Staff	Original Proposal	Change Request	% increase
Task 1 - Project Management						
			Hours Subtotal	130	2	2%
			Rate Subtotal	$22,842	$2,619	11%
Task 3 - FERC DAMSVR Vulnerability Assessment (4)						
			Hours Subtotal	309	411	133%
			Rate Subtotal	$53,652	$64,820	121%
Task 2 - Security Assessments (non-FERC and 1 SG3) (4 Sas non-FERC)						
			Hours Subtotal	269	-138	-51%
			Rate Subtotal	$45,707	-$23,007	-50%
Task 3 - Section 9.0 Computer Security and SCADA Analysis						
			Hours Subtotal	44	20	45%
			Rate Subtotal	$7,030	$4,028	57%
Task 4 - Security Plan Update						
			Hours Subtotal	54	130	241%
			Rate Subtotal	$11,154	$21,597	194%
Task 5- Training Awareness Framework						
			Hours Subtotal	38	54	142%
			Rate Subtotal	$7,170	$11,371	159%
Task 6- IE3RP						
			Hours Subtotal	47	44	94%
			Rate Subtotal	$8,891	$8,109	91%
			Total Hours	891	523	3268
			LABOR TOTAL	**$156,445**	**$89,538**	**57%**

Gannett Fleming is fully committed to delivering this project successfully, without further changes, and most importantly, ensuring a sustainable and best-in-class FERC compliance program for SFWPA.

As your partner, we want to ensure open communication and a collaborative approach and are happy to address any concerns you may have. Should you have questions or require additional information to review with your leadership and provide a change order, please let me know.

Sincerely,

Gannett Fleming, Inc.

William F. Foos, CPP, PSP, Vice President
Senior Director, Security and Safety Services
T 303.390.3977 | M 717.571.3412
wfoos@gfnet.com

SOUTH FEATHER WATER & POWER AGENCY

TO: **Board of Directors**

FROM: **Kyle Newkirk, Civil Engineer**

DATE: **September 26, 2023**

RE: **Business Item – Miners Ranch Canal Panel 208-212 Repair**

A Request for Bid was published on July 11th, 2023, for the replacement and repair of a 100' section of the Miners Ranch Canal. This section of the canal was identified for repair during last year's outage, and budget has been allocated for the work. The photo below shows how the sloped canal wall is compromised at the invert (wall to floor transition) along the entire 100' length of the repair area. This area was previously repaired, as is indicated by the lighter concrete color, but it appears that poor condition of the subgrade under the repair has caused its premature failure. The scope for this repair project includes the complete re-grading and re-compaction of the subgrade material, with the intent to eliminate issues like we experienced here, in the future.

The following Business item is being submitted for review and approval during the month of September, 2023.

- The Agency intends to hire the selected contractor to remove and replace the compromised section of the canal in November of 2023.
- This is an approved budget item for 2023 (Items 64a and 64s).
- 2 contractors attended the Bid Walk; 2 submitted proposals:
    - Syblon Reid General Engineering and Contractors, and Escheman Construction Company.
- Escheman Construction's solution was selected by Agency staff to proceed. It was responsive to the request for bid, and the lower priced of the two bids.
    - The scope of services is outlined in the Request for Bid and the Contract, and the lump sum cost is $641,929.
    - See attached Bid for further details.
- This project will be completed during the 2023 Miners Ranch Canal and Kelly Ridge Powerhouse Outage in November.

Action to approve project expenses:

"I move for approval of expenses in 2023 of $641,929 for the Miners Ranch Canal Panel 208-212 Repair Project."

REQUEST FOR BID

FOR THE

DEMOLITION AND RECONSTRUCTION

OF THE

MINERS RANCH CANAL, PANEL 208-212

REPAIR

SOUTH FEATHER WATER AND POWER AGENCY
SOUTH FEATHER POWER PROJECT
FERC Project No. 2088

Issue date:
July 11, 2023

Bid Due Date:
September 14, 2023

Prepared by:
Kyle Newkirk, Civil Engineer
knewkirk@southfeather.com
South Feather Water and Power Agency
2310 Oro-Quincy Highway
Oroville, CA 95966
(530) 532-1701
FAX (530) 675-0361

ATTACHMENT A

Bid Price and Completion Time

ITEM	Inclusive	Lump Sum Price
Tasks 2.2.1 – 2.2.8		$641,929.00
COMPLETION TIME[(a)]	CALENDAR DAYS	12

Notes:

(a) Completion time shall be the number of calendar days within which the project will be completed from the date the conduit is de-watered, including weekend days.

Company Name: Escheman Construction Company Lic # 357520, DIR 1000921916

Print Name: Lance Barlean

Signature: _____

Date: 09/14/23

Portion of Work	Name of Contractor and Business Address	Contractor License Number	DIR Registration Number
Shotcrete Canal	Dees-Hennessey Inc 200 Indurtrial Road Suite # 190 San Carlos, Ca. 94070	481228	1000003007
ReBar	Sacramento Rebar 6415 Hedge Avenue Sacramento,Ca 95829	684384	1000012377

BID OR PROPOSAL BOND

KNOW ALL BY THESE PRESENTS:

Bond N/A

That We, Escheman Construction Company

(hereinafter called the principal), as principal, and Great American Insurance Company, a Corporation organized and doing business under and by virtue of the laws of the State of Ohio, and duly licensed for the purpose of making, guaranteeing or becoming sole surety upon bonds or undertakings required or authorized by the laws of the State of California as Surety, are held and firmly bound unto South Feather Water & Power (hereinafter called the Obligee)

in the just and full sum of ten percent of amount bid

Dollars ($ 10%) lawful money of the United States of America, for the payment of which, well and truly to be made, we hereby bind ourselves and our and each of our successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS, the above bounden principal as aforesaid, is about to hand in and submit to the obligee a bid or proposal for the Miners Ranch Canal Panel 208-212 2088

in accordance with the plans and specifications filed in the office of the obligee and under the notice inviting proposals therefor.

NOW, THEREFORE, if the bid or proposal of said principal shall be accepted, and the contract for such work be awarded to the principal thereupon by the said obligee, and said principal shall enter into a contract and bond for the completion of said work as required by law, then this obligation to be null and void, otherwise to be and remain in full force and effect.

IN WITNESS WHEREOF, said Principal and said Surety have caused these presents to be duly signed and sealed this 11 day of September, 2023

Eschman Constuction Company

By _____

Great American Insurance Company

By _____
Attorney-in-Fact

James D. Einerson, Attorney-in-Fact

000435 12/00

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento)

On September 11, 2023 before me, Gail C. Einerson, Notary Public
(insert name and title of the officer)

personally appeared James D. Einerson, Attorney-in-Fact,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

GAIL C. EINERSON
COMM. # 2326052
NOTARY PUBLIC · CALIFORNIA
SACRAMENTO COUNTY
COMM. EXPIRES APR. 5, 2024

Signature Gail C. Einerson (Seal)

GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by
this power of attorney is not more than THREE

No. 0 14660

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
JAMES D. EINERSON GAIL C. EINERSON MICHELLE FURNO	ALL OF GOLD RIVER, CALIFORNIA	ALL $100,000,000

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 2ND day of DECEMBER, 2020.

Attest

Assistant Secretary

GREAT AMERICAN INSURANCE COMPANY

Divisional Senior Vice President

MARK VICARIO (877-377-2405)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this 2ND day of DECEMBER, 2020, before me personally appeared MARK VICARIO, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.

SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisonal Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 11 day of Sept., 2023.

Assistant Secretary

S1029AH (03/20)

CONTRACTORS STATE LICENSE BOARD

Contractor's License Detail for License # 357520

DISCLAIMER: A license status check provides information taken from the CSLB license database. Before relying on this information, you should be aware of the following limitations.

- CSLB complaint disclosure is restricted by law (B&P 7124.6) If this entity is subject to public complaint disclosure click on link that will appear below for more information. Click here for a definition of disclosable actions.
- Only construction related civil judgments reported to CSLB are disclosed (B&P 7071.17).
- Arbitrations are not listed unless the contractor fails to comply with the terms.
- Due to workload, there may be relevant information that has not yet been entered into the board's license database.

Data current as of 12/8/2022 3:46:56 PM

Business Information

ESCHEMAN CONSTRUCTION COMPANY
PO BOX 607
BROWNSVILLE, CA 95919
Business Phone Number:(530) 675-2323

Entity Corporation
Issue Date 05/05/1978
Reissue Date 12/08/2022
Expire Date **12/31/2024**

License Status

This license is current and active.

All information below should be reviewed.

Classifications

A - GENERAL ENGINEERING

Bonding Information

Contractor's Bond

This license filed a Contractor's Bond with GREAT AMERICAN INSURANCE COMPANY.
Bond Number: CA4379192
Bond Amount: $15,000
Effective Date: 12/08/2022
Contractor's Bond History

Bond of Qualifying Individual

The qualifying individual FREDERICK JAMES ESCHEMAN certified that he/she owns 10 percent or more of the voting stock/membership interest of this company; therefore, the Bond of Qualifying Individual is not required.
Effective Date: 12/08/2022

Workers' Compensation

This license has workers compensation insurance with the INSURANCE COMPANY OF THE WEST
Policy Number:WPL505752402
Effective Date: 10/01/2022
Expire Date: 10/01/2023
Workers' Compensation History

Miscellaneous Information

- 12/08/2022 - LICENSE REISSUED TO ANOTHER ENTITY

Escheman Construction Company

South Feather Water and Power Agency

Miners Ranch MRC Wall

3.2 Means and Methods

Project Work Statement

1. Mobilize equipment and materials as needed prior to the proposed canal shut down.
2. After initial canal shut down by SFWP, we will implement additional dewatering measures to drain the work area as needed including pumps and coffer dams.
3. Survey and record the existing flow line elevations prior to demo.
4. Saw cut the concrete canal sections 208 and 212 at the complete demo limits 18” inside the new section attachment points.
5. Demo and remove all the existing concrete sections and dispose at the owner’s disposal site per plan.
6. Complete the demo at the section limits by removing the concrete, while protecting in place the existing reinforcing wire or steel.
7. Over Ex and recompact to plan grade.
8. Set pre-built forms on the outside wall.
9. Install reinforcing steel and water stop.
10. Clean existing canal to prepare for shotcrete.
11. Shot Crete canal per plan.
12. Complete joint sealant.
13. Strip forms and check for holidays.
14. Cleanup and mobilize.

3.3

1. See attached equipment list with primary equipment and attachments highlighted in yellow.
2. Wall forms- 5/8” plywood sheeting on 2x4 frames with 3-point bracing.
3. Epoxy coated rebar per plan. Conforming with ASTM A 615
4. Water stops and joint seal per plan and spec.
5. 506.2 Shotcrete including admixtures

3.4

1. Submitted as required upon award.

3.5

1. See Attachment C

3.6

1. See Attached copy of CSLB license 357520.
2. See Attached Past Performance.

3.7

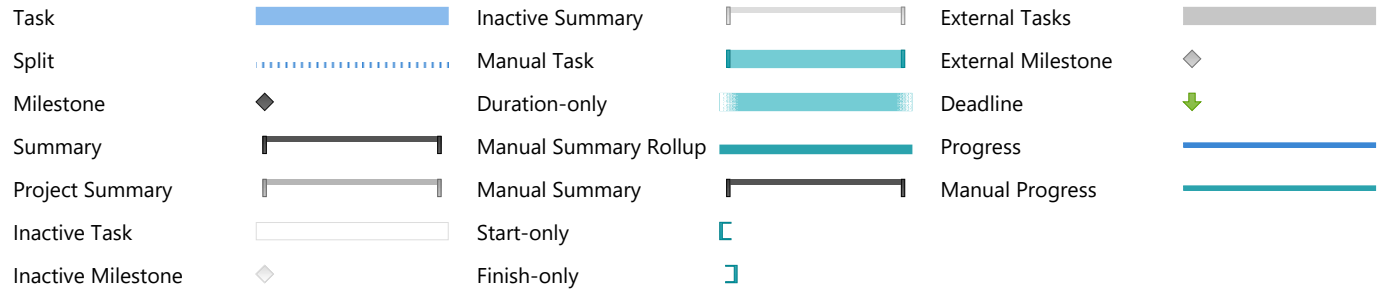
1. Escheman Construction Company has been contracting under our currant license for 49 consecutive years.
    a. Jim Escheman, Founder and President, has been in Heavy Civil construction his whole life, including large subdivisions in San Diago moving 1 M CY per month, Lake Oroville Dam and hundreds of public and private projects.
    b. Lance Barlean. Owner and General Manager. 40 years at this Company. I will be the main point of contact for the project. Skills include: Grading, Paving and Underground
        i. Potable water systems and tanks
        ii. Wastewater systems and sanitary sewer lines.
        iii. Underground utilities.
        iv. Road building, building site construction, grading and paving
        v. Storm drain systems, canal and levee work.
    c. Gabe Howard, Superintendent. 20 years in Heavy Civil.
        i. Gabe has all of the above skills as well as working on large Army Corps projects for Nordic, Oden and Great Lakes.
    d. Jason Benton, Forman 12 years.
        i. Grading Paving, underground, mining and forestry.
    e. James Robison, Operator/Laborer 10 years

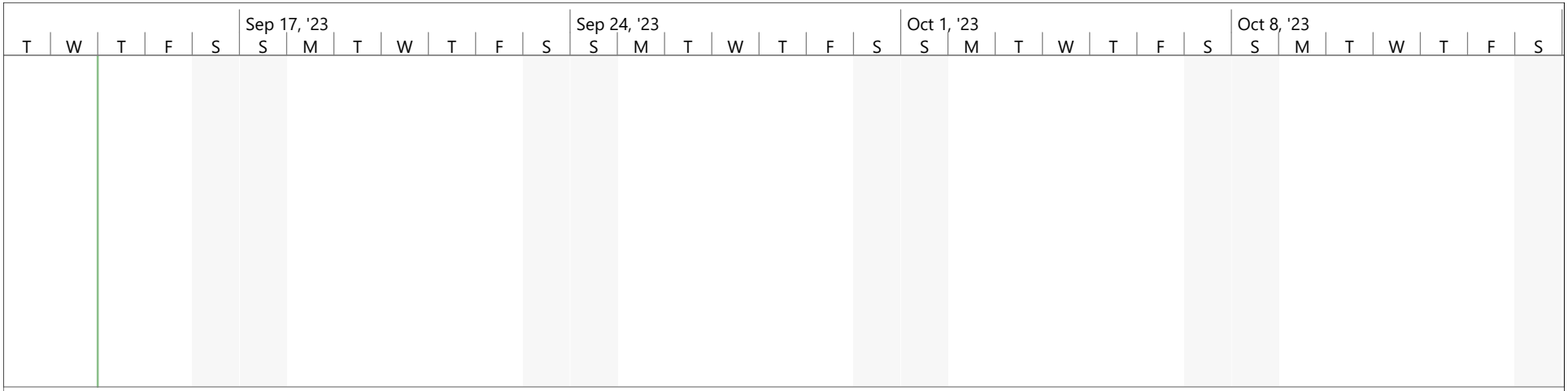
3.8

1. Please see attached sub-contractor sheet.

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1		Mobilization	8 days	Fri 10/27/23	Wed 11/1/23		ALL
2		Canal Dewatering	1 day	Wed 11/1/23	Wed 11/1/23		SFWP
3		Canal Dewatering	1 day	Thu 11/2/23	Thu 11/2/23		Escheman
4		Canal Demo	2 days	Thu 11/2/23	Fri 11/3/23		Escheman
5		Foundation Prep	1 day	Sat 11/4/23	Sat 11/4/23		Escheman
6		Outside Wall Forms Water stop	3.88 days	Sun 11/5/23	Tue 11/7/23		Escheman
7		Reinforceing Bar	2 days	Mon 11/6/23	Tue 11/7/23		Sac Rebar
8		Shotcrete	6.63 days	Tue 11/7/23	Sat 11/11/23		Dee Hennessey
9		De-Mob	2 days	Tue 11/14/23	Wed 11/15/23		ALL

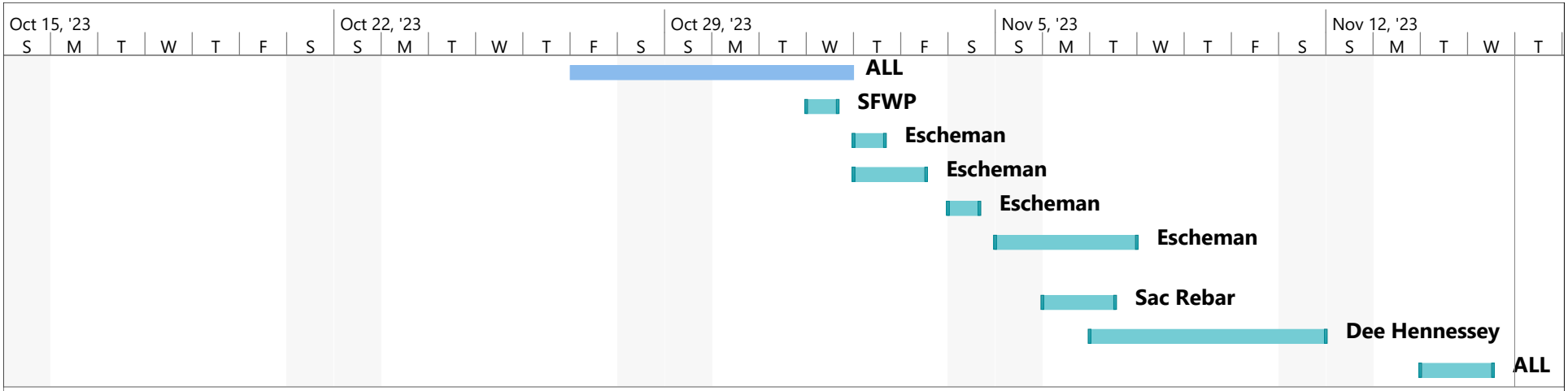
Project: Miners Ranch MRC Wa
Date: Thu 9/14/23





Project: Miners Ranch MRC Wa
Date: Thu 9/14/23

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			



Project: Miners Ranch MRC Wa
Date: Thu 9/14/23

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ESCHEMAN CONSTRUCTION EQUIPMENT STATUS SHEET

Revised

9/12/2023

	Class	Code	Yr.	Equipment Make	Model	Condition			Identification No.	Unit
						Excellent	Good	Fair		
1	LDRRT	2508	2001	BACKHOE JOHN DEERE	410G	X			T0410GX900811	HR
2	LDRRT	1861M4	2013	BACKHOE CATERPILLAR	420F	X			SKR01483	HR
3	LDRRT	1861N	2017	BACKHOE CATERPILLAR	420 F 2	X			HWD02230	HR
4	ROVIB	8082	2007	COMPACTOR CATERPILLAR	CP563E	X			CNT01483	HR
5	ROVIB	8083	2007	COMPACTOR/ROLLER CATERPILLAR	CS563E	X			CHG02193	HR
6	TRACC	3733	2017	DOZER CATERPILLAR	D5K2	X			OKW292563	HR
7	TRACC	3733	1996	DOZER CATERPILLAR	D6H XL		X		9KJ01432	HR
8	TRACC	3733	2015	DOZER CATERPILLAR	D6T XL	X			KMR00400	HR
9	HCECL	0250	2021	EXCAVATOR CATERPILLAR	303.5E2	X			OJWY07909	HR
10	HCECL	0250	2019	EXCAVATOR CATERPILLAR	305.5E2	X			0CR508003	HR
11	HCECL	308 CR	2022	EXCAVATOR CATERPILLAR	308 CR	X			308VGG806739	HR
12	HCECL	0305	2018	EXCAVATOR CATERPILLAR	315F L	X			0TDY11976	HR
13	HCECL	0312C	2013	EXCAVATOR CATERPILLAR	320E	X			TFX00552	HR
14	HCECL	167ELC	1995	EXCAVATOR JOHN DEERE	690ELC			X	549696	HR
15	LDRCL	1752	1990	LOADER CASE	721		X		JAK0022363	HR
16	LDRCL	2310	2019	LOADER CATERPILLAR	950GC	X			M5700693	HR
17	GRADR	3930	2015	MOTOR GRADER JOHN DEERE	772GP	X			1DW772GPJFF671417	HR
18	GRADR	3930	1997	MOTOR GRADER JOHN DEERE	772CH		X		DW772CH562798	HR
19	ASPAV	2674	2000	PAVER CEDAR RAPID	561 CR	X			48644	HR
20	ASPAV	2674	2009	PAVER CATERPILLAR	AP-655D	X			CATAP655ABNZ00276	HR
21	ROL-2	1359	2020	ROLLER/COMPACTOR BOMAG	BW 138 AD	X			101650461024	HR
22	ROL-2	3572	2003	ROLLER/ COMPACTOR INGERSOLL RAND	DD24		X		174032	HR
23	ROL-2	3572J	2016	10 TON PAVING ROLLER	CB54B	X			0RJN00226	HR
24	SCRSP	1400	1980	SCRAPER CATERPILLAR	613B		X		38W06855	HR
25	LDRRT	3054	2020	SKIP LOADER CAT	415IL	X			0H6L00188	HR
26	LDRRT	2495	2013	SKIP LOADER JOHN DEERE	210K	X			1T8210KXKDE891511	HR
27	LDRRT	2495	1999	SKIP LOADER JOHN DEERE	210LE		X		T0210LE880106	HR
28	LDRCL	299DX	2019	TRACK SKIDSTEER CATERPILLAR	299D2 XHP	X			0DX202923	HR
29	BRMSW	ALL	2013	LAYMOR	SM300	X			34227	HR
30	FKLF		1997	JCB FORKLIFT	FORKLIFT		X		SLP93004VE0662216	HR
31	FKLF		2014	JLG TELEHANDLER	G10-55A	X			160060675	HR
32	D-W	FX60-T	2003	DITCH WITCH (WITH 2 OPERATORS)	FX60		X		1DSB122RO317X2506	HR
33			2018	MORBARK CHIPPER	M12RX	X			4S8SZ1212JW032042	HR
34			2012	SKYJACK MANLIFT	SJ45T		X		98000862	HR
	Class	**Code**	**Yr.**	**Vehicle Make (Trucks)**	**Model**	**Condition**			**Identification No.**	
						Excellent	Good	Fair		
35	TRUON	3AXL	1995	KENWORTH #9 (Dump Truck)	T800		X		9C51730	HR
36	TRUON	3AXL	1998	KENWORTH #8 (WATER TRUCK)	T800		X		SE620155	HR
37	TRUON	3AXL	2013	KENWORTH #10 (Transfer Dump Truck)	T800	X			3QUX431	HR
38	TRUON	3AXL	2012	WESTERN STAR #11 (Tractor with end dump	4900SF	X			5KJJAEDR6CPBK9319	HR

39	TRUON	3AXL	2012	WESTERN STAR # 12 (WATER TRUCK)	4900SF	X			5KJJAEDV7CPBN1195	HR		
40	TRUON	3AXL	2020	WESTERN STAR #13 (Tractor with trailer)	4900SB	X			5KJJALD15LPMA7893	HR		
	Class	**Code**	**Yr.**	**Vehicle Make (Pickups)**	**Model**	**Condition**			**Identification No.**			
						Excellent	Good	Fair				
41	T&TT		2001	FORD (PU)	F250		X		6S42818	HR		
42	T&TT		2000	FORD (Flatbed dump truck)	F350 XLT		X		7J43951	HR		
43	T&TT		2015	RAM (Service Truck)	3500	X			94983P1	HR		
44	T&TT		2017	FORD (Service Truck)	F550	X			F23955	HR		
45	T&TT		2018	FORD (Service Truck)	F550	X			E14120	HR		
46	T&TT		2022	FORD (Service Truck)	F250	X						
	Class	**Code**	**Yr.**	**Trailers Make**	**Model**	**Condition**			**Identification No.**			
						Excellent	Good	Fair				
47	EXCL		1979	HEIL (PUP TRAILER)	TRAILER			X	XU2293	DY		
48	TRAIL		1966	DIAMOND (SEMI BELLY DUMP)	TRAILER			X	WN5647	DY		
49	TRAIL	400	2005	MURRAY (102"X 45', 16 WHEEL)	LOWBED	X			1M9G472015A056388	DY		
50	EXCL		1997	WESCO (TRANSFER TRAILER)	TRAILER		X		4EM3792	DY		
51	TRAIT	300	2005	TRAIL KING (TILT DECK TRAILER)	TK 40	X			4GE2175	DY		
52			1990	CAMT	MIXER TRAILER			X	1UK3355			
53			2006	CTRLR CARRIER	TRAILER				4GN1146	DY		
54			2018	PJ 2 AXLE TILT TRAILER	21LF	X			4P5TS2029K1301177	DY		
55	TRAIL		2003	TRAIL KING (POWER TAIL)	TK 70	X			1TKA048223M102214	DY		
56	TRAIL		2016	BLACKSMITH (END DUMP)	ED 34'	X			4B9B4D32XGH103113	DY		
57			2015	MARKSMAN (WATER BUFFALO)	500 GAL	X			1M9BT0829FL516349	DY		
58			2020	IRON BULL 16' (DUMP TRAILER)		X			50HDB1622L1041236	DY		
59			2021	PJ 2 AXLE TILT TRAILER	26 LF	X			4P5T82627M1362827	DY		
	Class	**Code**	**Yr.**	**Small Equipment & Make**	**Model**	**Condition**			**Identification No.**			
						Excellent	Good	Fair				
60			2012	CONCRETE SAW STIHL	TS500i		X		174405200	DY		
61			2018	CONCRETE SAW HUSQVARNA	FS400LV	X			2018 1800181	DY		
62			2001	TAMPING RAMMER MULTIQUIP	MT-74F		X			DY		
63			2018	TAMPING RAMMER MULTIQUIP	MTX70HD	X			D1003	DY		
64			2012	ONE-WAY PLATE COMPACTOR MULTIQUIP	MVC-88VGHW		X		7036	DY		
65			2004	CHAIN SAW HUSQVARNA	372XP		X		41300762	DY		
66			2017	CHAIN SAW HUSQVARNA	390XP	X				DY		
67	HMMR			TELEDYNE BREAKER/HAMMER (1000#)	TB325CM			X		HR		
68	HMMR		2003	ROCKRAM BREAKER/HAMMER (3500#)	776 E		X		580116	HR		
69	HMMR		2022	CAT BREAKER/HAMMER (1000#)	B9	X				HR		
70			2020	CAT COLD PLANER (24")	PC306	X				HR		
71			2022	CAT HOPAC (2200BPM)	CVP40	X				HR		
72			2020	CAT AUGER	A18B					HR		
73				COMPACTION WHEELS	COM,WHEEL					HR		
74												

SOUTH FEATHER WATER & POWER AGENCY

TO: **Board of Directors**

FROM: **Kyle Newkirk, Civil Engineer**

DATE: **September 26, 2023**

RE: **Business Item – Sly Creek Powerhouse Governor Upgrade Project**

The Sly Creek Powerhouse was recommissioned under South Feather Water and Power Agency's ownership in 1986. At that time, a Woodward Cabinet Governor with electro-mechanical actuation was installed to control the turbine. The Turbine Governor is a system that is responsible for controlling the amount of water that is fed to the turbine at all times; it is critical for the smooth and safe operation of the plant under normal, and especially rapid, shut down conditions. In recent years, the agency has experienced an increase in electrical issues within the analog electronic components of the governor. Aging components and outdated technology are contributing to decreased reliability and, less responsive and predictable control of the Generator.

The following Business item is being submitted for review and approval during the month of September, 2023.

- In October 2023, the Agency plans to execute a contract to upgrade the Governor at Sly Creek Powerhouse.
- This is an approved budget item for 2023 (Item 61a).
- 4 contractors attended Bid Walk; 4 submitted proposals:
    - Emerson Automation Solutions, L & S Electric, Mercury Governor, and Basler Services.
- L & S Electric's solution was selected by Agency staff to proceed. It was the most responsive proposal, the project team is highly cooperative and eager to fulfill our project needs, and the bid is lowest priced among the responsive bidders.
    - The scope of services is outlined in the proposal, and will include items A, B, G, H, I, J, K, and X, for an estimated total cost of $229,800.00 (not including tax).
    - Some of the optional items in the proposal fulfill items in the original RFP, and some others have been deemed valuable and necessary to meeting the objectives of this project.
    - There are portions of this project that involve having the L & S team on-site. Their

time and travel expenses will be billed on a discounted T&M basis. The estimated costs for those services are included in the price above.

  - The total expected cost after taxes and T&M work is under $260,000.
  - See attached Proposal for further details.

- This project will be completed during the 2024 Sly Creek Powerhouse Outage in October. Budget will be requested and included next year to cover the costs acquired during the 2024 fiscal year. The total dollars budgeted for this project in 2023 were $200,000.

Action to approve project expenses:

"I move for approval of expenses in 2023 and 2024 estimated at $260,000 for the Sly Creek Powerhouse Governor Upgrade Project."

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

L & S Electric, Inc.

Proposal QE06476-0

for

South Feather Water and Power Agency
2310 Oro-Quincy Highway, Oroville, California 95966

Request for Proposal
For the
Sly Creek Powerhouse Governor Control System Replacement

August 07, 2023

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Contents

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

1. L & S Electric – Qualifications

Introduction

Successful completion of a hydroelectric governor modernization project not only requires an industry leader in hydroelectric generation systems integration. It also requires a responsive and responsible company that is dedicated to cooperation, partnerships, and the customer's best interest. Provided below is a company introduction that illustrates how L & S Electric is uniquely qualified to deliver a successful project outcome.

Company Overview

L & S Electric (L&S) began in 1983 with the merger of two companies that were founded in the 1930's, Leverance Electric and Snapp Electric. Since this merger, L&S has demonstrated a consistent annual growth rate in employment and revenue. L&S remains privately owned, financially solid, and debt free while maintaining a high Dun & Bradstreet rating.

L&S' mission is to develop partnerships with our customers by providing them with quality products, unparalleled service, and optimum value. As a result of this commitment, we have grown to multiple locations throughout North America with over 300 employees. Each of our corporate divisions offers complementary services including Engineering, Rotating Apparatus Repair, Mechanical Repair Services, Power Services, Reliability Services and Electrical Equipment Sales. Our growing client base is worldwide and includes businesses involved with electric power generation, pulp and paper production, paper converting, mining, agriculture and food processing, rail and water transportation, iron foundries, and industrial manufacturing. As a result of successful partnerships, L&S Electric established its Canadian company L&S Electric of Canada ULC; and expanded the Power Control Solutions Division capacity by adding 18,000 sq. ft. of manufacturing area to the preexisting 30,000 sq ft. to meet hydroelectric and OEM panel customer needs.

L&S Electric's Manufacturing Facility

Structured to optimally implement small, medium, and large power generation projects, the Power Control Solutions Division maintains our corporate focus on quality, service, and value. Our broad

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

experience includes all phases of the hydro power generating process including governors, excitation, automation, SCADA, metering, protective relaying, transformers, switchgear, installation, and commissioning. We are ISO 9001 certified, and our manufacturing facility is certified to UL508A standards.

Our extensive resume includes technically challenging projects in demanding situations for clients such as:

- Yuba County Water Agency
- Tacoma Power
- Pacific Gas & Electric
- Puget Sound Energy
- Avista Corporation
- Columbia Power
- Fortis B.C.
- BC Hydro
- TransAlta Corporation
- The United States Army Corps of Engineers (USACE)
- The United States Bureau of Reclamation (USBR)
- American Electric Power
- Northwestern Energy
- Brookfield Power
- Hydro Tasmania
- Idaho Falls Power
- … and many more

L&S Electric is truly committed to becoming a partner with our customers as we clearly understand that our success is the result of satisfied clients. As such, we have developed a reputation for supplying technically superior solutions while also providing outstanding value.

Organization

To ensure a predictable and successful project outcome, the most talented and experienced personnel within the industry are employed. Key positions account for more than 200 years of combined experience.

Over the past decades the Power Control Solutions Division has gained experience providing new control systems for over 600 new and rehabilitated hydro units ranging in size from 75kW to 600MW along with complete project upgrades with capacities up to 2.5GW.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

2. L & S Electric – Project References

Introduction

L & S Electric has successfully executed many recent hydroelectric control projects similar to the scope of supply required for the Sly Creek governor upgrade. These customers include Yuba County Water Agency, Avista Corporation, Tacoma Power, Energy Keepers, and others. See below for these specific customers. Please refer to the attached list of a more extensive listing of governor systems for which L&S has designed, fabricated, tested in factory and at site, and commissioned.

Company	Contact	Description of Project
Yuba County Water Agency	Aaron Esselman aesselman@yubawater.org P: 530-740-7084	L&S has been selected to provide a digital governor conversion and distributing valve replacement of a 1960's Voith governor. A new digital governor, along with an L&S 7500 distributing valve will control the single Francis unit. Additional equipment supply includes redundant gate position sensing, accumulator level sensing and gate lock control.
Avista Corporation	Jeremy Fauth jeremy.fauth@avistacorp.com 509-495-2079	Governor upgrade of a Woodward Cabinet Actuator for a Kaplan turbine. The digital governor enclosure will be designed to slide into the existing Actuator Cabinet where the existing Woodward 517 and I/O interface equipment is currently located. Additional equipment supply includes redundant gate position sensing.
Tacoma Power	David Wagner dwagner@cityoftacoma.org 253-779-7781	The supply of 12 governor systems across 5 plants including qty 4, LS-2000 distributing valves, Woodward distributing valve retrofits, and digital governor controls.
Energy Keepers	Gary Peterson gary.peterson@energykeepersinc.com 406-872-0229	Governor upgrades of a Woodward Cabinet Actuator for 3 units at the SKQ plant. The digital governor enclosure will be designed to slide into the existing Actuator Cabinet where the existing Woodward control column is currently located. Additional equipment supply includes gate position sensing, sump level sensing, pressure tank level sensing and air admission.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

3. L & S Electric - Project Approach

Introduction

While undertaking an effort as critical as this project, the importance of governor system expertise and power plant integration cannot be understated. Without a mastery of integration, many key elements of the project could be subject to risk. To ensure ease of operation and owner satisfaction, the installed system must demonstrate a large degree of consistency. To simplify systems that are inherently complex, L&S will ensure that user interfaces, control screens, drawings, and programs exhibit uniformity, thus, L&S is proposing a proven governor system that has been developed, thoroughly tested, and installed through North and South America.

Many contractors can bid and supply equipment in accordance with a specification, but in cases where design parameters cannot be readily qualified or quantified, the experience of an organization like L&S becomes invaluable.

Successful completion of this project not only requires an industry leader in hydroelectric generation systems integration, but it will also require a responsive and responsible project team that is dedicated to cooperation, partnerships, and the customer's best interest.

Governor Control Cabinet (GCC)

L&S is proposing the use of a standard governor package called the MRT 2.1, utilizing a Modicon M340 controller and associated I/O. The term MRT stands for "Multiple Runner Type", meaning the same governor system has been designed for the speed control of a Francis, Kaplan, or impulse type turbine. Because the MRT governor is universal, it has been heavily tested, well documented, and proven successful for governor systems of this nature. The governor I/O is 100% configurable through the touchscreen without the need for special commissioning software.

The hardware design consists of redundant cabinet power supplies with a simplex M340 PLC and simplex I/O modules including the following available I/O and controls:

- 32 Configurable Discrete Inputs
- 32 Configurable Discrete Outputs
- 8 Configurable Analog Inputs (4-20mA)
- 8 Configurable Analog Outputs (4-20mA)

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

- Pump Control (HPSS - Hydraulic Pressure Supply System)
- Brake Control
- Creep Detection
- Speed Sensing
    - Proximity sensor
    - PT Interface
- Synchronizing (via SEL 751 relay)
- Power Transducer (via SEL 751 relay)
- Ethernet Switch
- DNP3 Communication gateway (SEL 3505 RTAC)

Refer to the L&S MRT 2.1 System Overview in the reference section of the proposal for diagram that shows the I/O described above.

It is understood that the principal goal of the project is to increase the reliability and controllability of the unit throughout its varying head operating range of 128-208 feet. Given the wide range of head level, it may be necessary to customize the governor code to accommodate multiple sets of offline gains or breakaway positions dependent on head level. If special programming is required, this can be discussed and added to the contract. The unit stability and performance characteristics must be evaluated during the site kick-off meeting to determine if special operating modes are required.

Given the compact design of the governor cabinet (GCC), the intention for the GCC is to slide into the Woodward cabinet actuator by removing the exterior panel in front of the existing control column. As the control column is no longer needed, the space made available by removing the control column will allow for the depth of the new GCC to fit into position without interference. A flange around the new GCC facilitates the addition of mounting fasteners to secure the new GCC to the existing cabinet actuator frame. Wiring to the new GCC is conveniently routed from the existing terminal blocks adjacent to the GCC and from the new devices located directly behind the GCC on the hydraulic portion of the existing governor cabinet. It is not a coincidence that the MRT governor will fit in the Woodward Cabinet Actuator frame. The cabinet and panel layout have been intentionally designed in a manner to fit in this exact arrangement, given the popularity of Woodward Cabinet Actuators and the need to modernize the controls throughout the world. L&S has implemented this arrangement many times.

By removing the panel in front of the existing control column and replacing it with the new GCC, some control switches and pressure gauges will need to be re-located or replaced. L&S has not

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

included the cost to supply new switches or gauges at this time, however, integration with the existing controls is included. Refer to Table 1 below for a list of devices to be addressed during detailed design.

Device	Disposition
Frequency Meter	Replaced by Governor OIT Screen
Governor Oil Pressure Gauge	Replaced by Governor OIT Screen
Aux Valve Indication Meter	Eliminated
Generator Brake Pressure Gauge	Re-locate
Wicket Gate Position Indicator	Replaced by Governor OIT Screen
Speed Adjust Meter	Eliminated (Replaced by Speed Setpoint available in Governor OIT Screen)
Governor Control Transfer Switch (Auto/Manual)	Replaced by Governor OIT Screen
Generator Brake Control Switch	Relocate or Use Governor OIT Screen
Turbine Inlet Valve Control Switch	Relocate
Transfer Valve Control	Eliminate
Unit Start/Stop Control Switch	Relocate

Table 1 - Existing Governor Meters and Switches

Woodward S-Type Valve Retrofit and Hydraulic Components

To convert the analog-electric control of the existing Woodward S-type valve to accept an analog command from the new governor system, several components must be replaced.

A new pilot manifold will be supplied that includes a proportional valve, shutdown solenoid valve, check valves to allow for failsafe operation, and various test points for air purging and trouble shooting. The new pilot manifold will be positioned near the existing distributing valve and bolted to the base plate. When removing the old pilot valve, a potential hydraulic “short-circuit” is created that will be corrected by the supply of a special plug that must be installed into the existing valve. The special plug is included in the scope of supply.

To provide filtered oil to the critical pilot manifold components, a new duplex filter will be supplied. The duplex filter will replace the existing duplex filter and will be mounted near the new pilot manifold. The new duplex filter will also supply filtered oil to the gate lock and rate limiter solenoid valves.

Position feedback of the existing Woodward S-valve is needed for closed loop control. A LVDT and associated brackets will be supplied to connect the LVDT core to the moving portion of the

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

existing S-Valve timing stop bar, thus providing feedback of the actual spool position of the main valve to the new proportional valve.

The rate limiter and gate lock solenoid valves are easily replaced and are included in the scope of supply. L&S intends to re-use the existing valve manifold and adapt to a standard D03 size valve. During detailed design, it may be possible to consolidate variations of solenoid valves between the shutdown solenoid valve, rate limiter solenoid valve, and gate lock solenoid valve, thus reducing the number of spare parts necessary. This will be dependent on the required spool and voltage configuration. New cables are also included to be routed back to the new governor cabinet.

A pressure transducer is included to provide a governor oil pressure signal to the governor to allow for pump control, alarming, and low-pressure trip outputs. The pressure transducer will be supplied on a header manifold with a pressure gauge and isolation valve. The assembly will be mounted in a convenient location in the actuator cabinet and connected to the existing pressure sensing oil tap.

To interconnect the new hydraulic components, the design package will include a suggested tube routing, including the required fittings and tube lengths. The supply of the field tubing and fittings is included in the L&S scope of supply. Field fittings will be stainless steel Swagelok compression type fittings, fittings used on factory assembled components are Parker Triple-Lok JIC type fittings.

Lastly, as the auxiliary valve is no longer needed, a blanking plate is provided to seal off the oil connections below.

Gate Position Sensing

Given that the wicket gate servomotors are double rod type servomotors with excellent access to the rear rod, L&S proposes to place the new gate position sensor in the same approximate area as the existing cable restoring feedback. The existing restoring cable, conduit, and sheaving will be removed. The existing guided follower arm can then be modified if necessary to position the magnet of the new MLDT position sensor.

Speed Sensing and Creep Detection

Primary speed sensing is accomplished using a PT signal, however, during start-up and as redundancy, a proximity probe is also used. On governor systems of this vintage, the Woodward

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

SSG offers an excellent location for the new proximity probes. A second proximity probe is used for comparison to detect a unit creep condition.

While the cover of the existing Woodward SSG could not be removed during the bid walk, it is assumed that the typical Woodward drive gear will be available to use as a target for the new proximity probes.

L&S proposes to provide two new proximity probes and the required bracket to facilitate installation under the existing SSG cover. New cables will be provided to wire the probes to the junction box local to the SSG assembly. Any existing speed switches can be removed and replaced by digital speed switches from the new governor system. It is assumed that existing cabling from the SSG to actuator cabinet will be sufficient for the new sensors. New cabling has not been included in the scope of supply.

Optional Items

L&S understands that the Agency is interested in being educated regarding what options are available in addition to a basic governor upgrade. Based on the answers to the bid questions, and the conversations during the bid walk, the following optional items are described. Pricing for the optional items can be found in the commercial proposal section of this proposal.

Distributing Valve Replacement - Given the complexity and age of the Woodward S-Valve that includes an external rate limiter servomotor, L&S proposes an option to replace the Woodward valve in its entirety**.** L&S has done this on numerous occasions, an example of which can be seen in the sketch SK230013 found in the reference section of this proposal.

The advantages of a complete valve replacement with an L&S valve include features such as an internal rate limiter device, compact design, cost effective spare parts, and all o-ring type seals between mating parts. The new distributing valve will also offer faster response and lower leakage that will result in better control and longer pump cycle times. Regarding replacement parts, the bushing and plunger used in an L&S valve have been designed to be replaced if needed based on standard drawings, rather than with field measurements to produce a custom matched set.

L&S has a complete line of distributing valves for hydro turbine controls. For Sly Creek, a L&S 2000 valve is proposed. Based on the existing servomotor volume and gate timing provided in the answers to the bid questions, approximately 156gpm flow rate at 180psi was used to select the L&S 2000 valve.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Pump Unloader Retrofit – While pump control is in fact included in the base proposal by means of digital outputs from the governor to replicate the pressure switches, an improved method of control is proposed by retrofitting the pump unloaders. The existing pump control uses a pressure switch in conjunction with a solenoid valve and a limit switch to start, stop, and load/unload the pumps. The optional unloader retrofit will eliminate the limit switch and use a modern D03 solenoid valve to directly control the unloader piston. Separate outputs from the governor will be used to start the motor and load the pump, eliminating the need for the limit switch to stop the motor after the pump is unloaded.

Pressure Tank Level Sensing Assembly – The optional pressure tank level sensing assembly is intended to provide the governor with a 4-20mA pressure tank level signal, while the aging sight glass will be replaced with a safe, magnetic flip-over flag type level visual indicator. The 4-20mA pressure tank level signal can then be easily configured or adjusted to different alarm and trip points and to make this measurement available for maintenance records. The existing level switch would then be removed and covered with a blank flange.

Sump Oil Level and Temperature Sensing – The optional sump tank level and temperature sensing assembly is intended to provide the governor with a 4-20mA sump tank level and temperature signal as well as replace the existing level and temperature switches. For the governor to completely incorporate pump control, it is ideal to have the sump level and temperature feedback to allow for configurable pump interlocks based on low level and high oil temperature, and to have more complete data for maintenance records.

Air Admission Assembly – The optional air admission assembly consists of a new solenoid operated air admission valve with a manual override lever. The assembly also includes a filter to protect the air admission valve, an isolation valve to separate the assembly from the pressure tank for maintenance, and a check valve to prevent accidental loss of air pressure due to a leak in the air piping. The air admission assembly combined with the pressure tank level sensing assembly will allow the governor system to provide automatic air admission to the pressure tank.

Hot-Standby Governor PLC - As requested in Task Item 3 of RFP, L&S will provide after award a detailed option for a redundant PLC architecture or Cold Standby system. It is worth noting that L&S has a lot of experience designing, implementing, and commissioning this type of architecture for both governor and excitation systems. The on-site kickoff meeting will be crucial to understand the intent and overall desire of South Feather Water and Power Agency for the redundant system to see if redundant I/O and field instruments are also worth considering.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

At this time, L&S does not recommend a Cold standby system. Given that the governor PLC design will use modular, off-the-shelf, commercially available PLC modules. In the event of a component failure, a failed module or PLC can be easily and quickly replaced with a spare part.

Coordination of Activities

An L&S Project Manager, assisted by a Project Administrator, is dedicated to each project. Because all projects benefit from a single point of contact, L&S's Project Managers assume responsibility for all project coordination and communication, both internally and with the customer. Working with a comprehensive understanding of the project and all pertinent project information, the Project Manager provides direction to a dedicated project design team to establish final engineering design details. To successfully complete a project, a specialized engineering team consisting of electrical engineers, software engineers, mechanical engineers, electrical designers, mechanical designers, and CAD personnel is required. To account for multidisciplinary and in-depth technical aspects, L&S's employees are a highly skilled and experienced project team.

Name	Role	Responsibility
William Tarter Tyler Swan (Alternate) John Harrison (Alternate)	Project Manager	Defines and schedules task assignments and works with managers, engineers and designers to implement designs.
Terry Bauman	Electric Engineering Lead	Responsible for the overall electrical design of the electrical governor system
David Bishoff	Mechanical Engineering Lead	Responsible for the overall mechanical design of the electrical governor system
Mike Rindfleisch	Sr. Designer	Responsible for detail drawings design
Larry Whitney	Control Engineer	Develops and tests the PLC program and OIT programs for governor systems
Jonhathan Fisher	Service Engineering Specialist	Responsible for site testing and commissioning

To ensure the complete integration of the entire project, L&S will utilize a cooperative design approach to develop a standard solution. This will provide those closest to the project ample opportunity to reach agreement with project requirements and site-specific preferences well in

advance of concept implementation. This integrated approach will ensure consistency with the design philosophy, documentation, quality and safety for the entire project scope of supply.

As indicated above, L&S is dedicated to fostering a partnership with our customers. Both the initial coordination and the commitment to continuous control of design activities are an essential part of developing and maintaining that partnership. Typically, in weekly or daily communication with customers, the Engineering Project Manager functions as a hub for all project communication and coordination. Working in proximity with Project Managers who develop initial project plans and schedules, L&S's Project Administrators maintain tight control on project schedules, updating them as required. Furthermore, Project Administrators assist Engineering Project Managers as they assume project submittal and document control responsibilities. In addition, weekly division meetings are held to plan and track critical path work. Of course, containing all key team members and support staff within the same division is essential to design coordination.

Further, L&S has ongoing relationships with preferred suppliers, so no design activities will be inhibited due to vendor or product unfamiliarity.

Commitment to the Project Schedule

L&S Electric's ISO – 9001 Quality Control

L&S's experience with project management, systems engineering, and manufacturing all play a vital role in the success of a timely project delivery. Unlike some companies, L&S provides a dedicated project team to ensure seamless completion from the time of a project's award to the project's completion. Project kick off meetings are held after notice to proceed, whereby all aspects of project scope and schedule are validated with the customer to ensure that resources are allocated in accordance with project objectives. A project kickoff meeting is included in the governor system price for this proposal. Following the customer consent of final design documents, L&S's dedicated procurement team works diligently with familiar suppliers to ensure that critical path manufacturing tasks are not compromised. During assembly, ISO certified quality control policies are implemented as standard practice to achieve unparalleled consistency and quality, which are both essential aspects of timely equipment delivery. To minimize project risk and reduce commissioning time, project schedules allow time for quality control and integrated testing activities.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Material Procurement

Even in a post-pandemic climate, the current unprecedented volatility in material sourcing and lead times is of the utmost concern. L&S is committed to working with South Feather Water and Power Agency to mitigate the risks involved with long lead time components, and to discuss creative strategies to maintain the project schedule and manage unforeseen supply chain disruptions. For example, creative strategies could include the use of L&S test components to continue with the manufacturing and testing activities while waiting for a long lead item. Another method to maintain the project schedule is to order long leadtime parts based on a letter of intent. L&S is willing to accept a letter of intent as sufficient assurance to proceed with the procurement process for certain components while the details of a contract or final design drawings are completed. To the best of the L&S project teams' ability, bringing the known long lead time items to the forefront of discussion with South Feather Water and Power Agency will be an essential part of the project execution. The L&S procurement team has worked with our vendors to bring in unprecedented parts inventory and vendor stock to support quick turnaround of governor projects and mitigate lead time risks. At this time, the base governor equipment proposal is well within the desired schedule included in the RFP.

Manufacturing

OEM panel manufacturing and testing is performed at our facility. We are ISO 9001 certified and our manufacturing facility is certified to UL508A standards. All manufactured control panels go through a Quality Control process involving point-to-point testing before equipment is released for factory functionality testing. Engineering and programming of the controls will take place in our offices at the same site. This integrated approach to designing and manufacturing ensures consistent design philosophy, documentation, and quality for the entire project scope of supply.

Factory Testing

Extensive simulation experience and shop testing capabilities uniquely qualify L&S to meet the needs of this project. At L&S, it is standard practice to prepare and test governor systems, PLC-based plant controls, unit controls, facility controls, excitation systems, and digital protective relaying systems to validate the performance of an integrated control system in order to meet specified functionality requirements. Standard means and methods used include hardwired switch panels, calibrated instruments, and signals to simulate simple field devices or I/O. In cases where complex

field devices are controlled but not provided by L&S, sophisticated signal generation may be employed to ensure functionality of protection and governor systems (e.g. Omicron and governor response testing). For special applications, custom programs are developed. Numerous projects have required internal development of custom algorithms featuring mathematical models of turbine/generator/governor systems such that a complete system can be simulated. Likewise, customer IT hardware and connections to customer networks are often simulated to ensure seamless integration of SCADA and user interface systems. L&S also has experience with extreme conditions testing with qualified electrical enclosures for special environments such as corrosive gas, seismic activity, high magnitude radio interference, and extreme electrical surge conditions. For exciter testing, L&S's test lab includes a power transformer, MG set, and speed governor to simulate onsite conditions. Specifically for low pressure governor testing such as the Sly Creek governor equipment, L&S has a dedicated air-over-oil pressure tank, reservoir and pumping system to simulate the hydraulic system at site. It is common practice to have several projects present in L&S Electric's test bay with technicians and engineers concurrently testing multiple systems for different projects. L&S's experienced engineers, programmers, and field service representatives, along with their ability to understand and replicate field conditions, have set L&S apart as a cutting-edge industry leader in research and development – which clearly demands rigorous product testing.

Start-Up and Commissioning

Start-up and commissioning services are among L&S's core competencies and considering these tasks in the design are the most critical aspect of the entire project. Outage coordination, equipment integration, unit status, and interim plant conditions must be fully understood. Although such iterations might be managed by a variety of contractors, L&S is wholly staffed and capable of performing the balance of plant integration. This includes governors, protection, unit, plant, and facility control, in addition to excitation without need of specialized contractor support. Demonstrated success underscores the quality of L&S's on-site services and field engineering proficiency.

While on site, safety is of the utmost concern and will be addressed before any work is performed. All site security and safety procedures will be strictly followed by L&S personnel. L&S currently has an account established for background checks and drug testing, if required.

Cost of Services

With industry competitive rates and creative design solutions, L&S Electric can regularly offer the lowest overall price. However, our primary focus is ALWAYS on value. In a post-award debriefing

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

letter discussing our award of the Hoover, Parker and Davis Dam Modernization Project, **the USBR** stated the following:

> *"L&S Electric's experience and past performance indicates they are reusing designs from previous successful hydro power plants to minimize engineering and development time. Their designs are simple, reliable, easy to use and maintain, and consist of equipment that is readily available in the market. The interviews confirm that clients would award similar work to L&S again in the future."*
>
> *"Your proposal was the highest rated technically, did not have any significant weaknesses or omissions, did not require any clarifications/discussions, and was the lowest priced offer. Thusly, it was determined that award to L&S was the best value to the Government and that no tradeoffs between the technical and price factors were required.*

If appropriate, potential savings for this project have been clearly outlined as separate items within the proposal.

Long Term Support

L&S Electric is well positioned to provide years of technical support and service. Privately owned, debt free and inherently stable, L&S Electric continues to provide ongoing service and support to numerous repeat customers corporate-wide and continues to develop and maintain exclusive partnerships with hydroelectric utilities. Including the L&S Electric dedicated Field Service team, the Power Control Solutions Division employs over twenty engineers and technicians with hydroelectric generation field experience capable of providing on-site service. In addition, L&S's Power Control Solutions Division maintains relationships with industry specialists, contractors, and suppliers and is able to solicit support from other internal business units, including L&S's Mechanical Repair Services, Power Services, Reliability Services and Electrical Equipment Sales groups. Our experienced staff is always on call, available 24 hours a day, 7 days a week, and 365 days a year to provide service. Our corporate slogan is "Dedicated People, Quality Products, And Above All, Service".

As previously mentioned throughout the proposal, L&S has many capabilities within a hydroelectric powerhouse, with governor systems being just one facet of the various control systems and equipment needed to bring waterpower to the grid. Starting a relationship with L&S based on a governor upgrade project would add an excellent resource for South Feather Water and Power Agency for any questions or support related to future upgrades related to excitation, unit controls, or even plant control systems. L&S also has an extensive resume related to PRV controls and automation, should the need arise to have a look at the mechanically linked PRV

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

system. In addition, L&S has seen an increase in the demand for Annual Service Plans, where L&S provides dedicated phone support, annual maintenance, and training, as well as discounted labor rates and spare parts pricing. An annual service plan can be customized to fit the most realistic needs of South Feather Water and Power Agency, towards the end of the project would be an appropriate time to discuss Annual Service Plan options and details.

Commentary about Scope Change Control

Changes in scope will always be discussed and agreed with the customer before any implementation. The changes can be handled on Time and Materials basis. Our commercial proposal includes the Rate Schedule that describes the corresponding fees. L&S believes that a clear understanding of the expectations set forth in the RFP are realized, and all assumptions are clearly identified. Therefore, the potential for scope changes due to misunderstanding the project requirements is much less with L&S than could be with other bidders for this type of project.

Conclusion

L&S is committed to developing and maintaining partnerships with our customers because we understand that our success is the result of satisfied clients. Our goal is to implement our well-developed technology for this vital project, and we will contribute our highly experienced personnel to this effort in conjunction with our ISO 9001 quality management system to ensure complete success.

Thank you for your consideration. We look forward to further discussions, and to the possibility of demonstrating the value of a partnership with L&S.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

4. L & S Electric - Project Schedule

The preliminary project schedule in Gantt chart form is attached. The following are general descriptions of the described steps and some pertinent remarks. Given the requested delivery date is in September of 2024, L&S's proposed schedule includes additional customer review time and conservative durations for design, manufacturing, and testing. If an accelerated schedule is required, L&S will be happy to re-evaluate the attached proposal schedule and offer suggestions for areas of improvement.

Project Initiation

After contract is fully executed, the Project Manager and Project Administrator will create the internal team and schedule to manage the project. The schedule will be based on the proposal schedule, however, much more detail will be added to account for all subtasks required to execute the project.

Kickoff Meeting

Given the complexity of the governor interface and wiring cut-in, we are proposing to have the project manager, mechanical engineer, and electrical engineer travel to the plant for one day to meet with plant personnel to conduct the project Kickoff meeting. Having both electrical and mechanical disciplines attend the kickoff meeting will ensure the success and completeness of the installation package.

We believe this one-day visit is sufficient given the similarity to other Woodward governor retrofits. This one-day kickoff meeting has been included in our proposal.

Engineering Design

The Project Manager working with the lead engineers will define a team and the corresponding tasks to develop the electrical and mechanical design, detailed engineering, drawings and documentation. L&S has allowed one week for South Feather Water and Power Agency to review and approve this documentation, as reflected in the attached schedule.

Documentation

This will include the required drawings (Communication one-line diagram, schematic diagrams, wiring diagram, Cable Schedule, Red/Green pencil mark-ups of existing drawings) as well as the standard product manuals, and manual addendums which include any deviations from the standard product. A mechanical demo/install plan in PDF format is also included.

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Manufacturing and factory acceptance testing (FAT)

OEM panel manufacturing and testing is performed at our facility. We are ISO 9001 certified and our manufacturing facility is certified to UL508A standards. All manufactured control panels go through a Quality Control process involving point-to-point testing before equipment is released for factory functionality testing. Engineering and programming of the controls will take place in our offices at the same site. This integrated approach to designing and manufacturing ensures consistent design philosophy, documentation, and quality for the entire project scope of supply.

Optional: Customer Witness Testing

This service was not specified in the RFP, but we believe it is worth considering. In our experience, this is a worthwhile investment that will increase familiarity with the equipment prior to commissioning and serve as an additional training opportunity. Witness testing is held after L&S completes all the required tests identified in the Factory Acceptance Test report. South Feather Water and Power Agency would then have to opportunity to review the test results and request to observe a demonstration of any specific test or mode of operation during the witness testing time period.

Installation Supervision

Installation supervision services are expected to consist of 5-9 days onsite. The preliminary schedule reflects an estimated installation schedule of 5 days. L&S intends to coordinate with South Feather Water and Power Agency to define a more accurate installation timeline depending on the number of resources and number hours/days per week that are intended to complete the installation.

Commissioning

Start-up and commissioning services are among L&S Electric's core competencies and considering these tasks in the design is critical aspect of the entire project. While on site, safety is of the utmost concern and will be addressed before any work is performed. All site security and safety procedures will be strictly followed by L&S Electric personnel. Based on our experience of similar projects, we have estimated that 5 days at site will suffice. Final pricing will be on a T&M basis, in case the actual job can be completed sooner, or if more time is required to allow other unrelated tasks to take place.

Value-added Training

This service was specified in the RFP, and we believe it will be a great value to the plant operations and maintenance staff. What we propose is to extend by two days the site visit by the Field Representative commissioning the first unit to conduct a hands-on training for the system, utilizing

L & S Electric, Inc.
Power Control Solutions
1810 CTH XX
Rothschild, WI, 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

the project documentation. In our experience in this is a worthwhile investment that will enhance the familiarity with the equipment, which will lead into ease of operation.

Commentary about Risks

Assuming the contract award is not delayed, L&S does not foresee any significant risks worth highlighting at this point. While material leadtimes are volatile as mentioned previously, during the exercise of preparing this proposal, a thorough check of current leadtimes has been conducted and the results are reflected in the preliminary project schedule.

L&S is under the impression that the Sly Creek drawings will have been updated to reflect the current conditions, to allow for installation engineering to be completed using the drawings in conjunction with the site kick-off meeting. We feel very confident about executing the required tasks, which are well within the realm of our competencies, and especially with the experience of similar governor projects.

L & S Electric, Inc.
Power Control Solutions
1810 County Road XX
Rothschild, WI 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

QUOTATION

To: South Feather Water and Power Agency
2310 Oro-Quincy Highway
Oroville, CA 95966

Attn: Kyle Newkirk

Quote No:	QE06476-0
Pay Terms:	Net 30 days
Delivery:	See attached Schedule
Incoterms:	DAP (2010)
Currency:	USD
Taxes:	Not included
Prices:	Firm for 30 days
Date:	August 7, 2023

Subj: Sly Creek Powerhouse Governor Control System Replacement

L & S Electric, Inc. (L&S) is pleased to provide a quotation of the following:

Item	Qty	Description

A **1** **Governor Control System**

Item A consists of the L&S standard governor equipment required for a digital governor conversion. These items include an MRT2.1 Digital Governor cabinet based on a Modicon M340 PLC platform, hydraulic retrofit of the Woodward "S" Valve to allow control via a new proportional valve, wicket gate position sensor, and speed sensing components. In addition to the required hardware, a site kick-off meeting is included to take the necessary field measurements for the mechanical retrofit, and to determine the electrical integration requirements with the existing system. Services required to execute the project are also included in item A such as project management, factory testing, and shipping costs.

Digital Governor Control Cabinet (GCC)

The MRT2.1 digital governor consists of:

- One (1) Slide-in Flange Mounted Cabinet with Sub-Panel
- One (1) OIT Touch Screen
- One (1) PLC Rack – 12 Slot
- One (1) PLC Power Supply
- One (1) PLC Processor – M340
- Two (2) High Speed Counter Module – 2 Channel
- Two (2) Analog Input Module – 4 Channel

- Two (2) Analog Output Module – 4 Channel
- One (1) Discrete Input Module – 32 Channel
- One (1) Discrete Output Module – 32 Channel
- Thirty-Two (32) Input Interposing Relays
- One (1) Hirshmann Ethernet Managed Switch – 4 port
- One (1) DNP3 Communication Gateway – SEL-3505 RTAC
- One (1) SEL-751 Feeder Protection Relay (power transducer)
- One (1) LS-PT-02 PT Interface Module
- Two (2) Cabinet Power Supply (redundant)
- (Lot of) Terminal Blocks, DIN Rail, Panduit, etc.
- One (1) Emergency Stop Pushbutton

Woodward S-Type Valve Retrofit

The S-Type Valve Retrofit components consist of:

- One (1) L&S D03 Standard Pilot manifold including:
  - One (1) Proportional Valve (Atos)
  - One (1) Shutdown Solenoid Valve
- One (1) LVDT Valve Position Sensor and associated brackets
- One (1) Parker Duplex Oil Filter Assembly
- One (1) Auxiliary Valve Cover Plate, gasket, and mounting hardware
- Two (2) Solenoid valves – To replace the gate lock and rate limiter solenoid valves
- Two (2) Flow control valves – to be used with the rate limiter and gate lock solenoid valves to ensure smooth operation
- (lot) Installation fittings and tubing

Gate Position Feedback Assembly

The gate position feedback components consist of:

- One (1) Balluff BTL 6 or equivalent Linear Position sensor (4-20mA)
- One (1) Sensor mounting bracket and follower components
- One (1) Sensor Magnet
- One (1) Sensor Cable (25 meter)

Speed Sensing Retrofit

The speed sensing retrofit consists of:

- Two (2) Proximity Probe
- One (1) Sensor mounting bracket and hardware
- Two (2) Sensor Cable (10 meter)

Services Included

- Onsite Project Kick-off Meeting – Consisting of a mechanical engineer, electrical engineer and project manager. The project kickoff meeting will be used to gather the onsite data required to complete the design and provide a complete installation documentation package.
- Project Management – utilizing Microsoft Project to maintain and manage the project schedule. A dedicated Project Manager and Project Administrator will be the single point of contact for the project team.
- Drawings – Governor cabinet and panel layout drawings, as well as wiring diagrams, hydraulic schematic, and mechanical equipment layout drawings with associate bill of materials are included.
- Installation Package
    - The installation engineering services will specify the cabling for the scope of supply and provide an installation wiring to/from list (Excel spreadsheet) and red/green line pencil (hand) edits of any existing drawings. Once the equipment is installed, any edits to the L&S provided CAD drawings will be updated and then provided electronically in AutoCAD 2017 DWG format. The updating of any pencil edited existing system drawings is not included in the base proposal and will be addressed separately. This documentation in conjunction with the electrical drawings wiring diagrams will provide a complete installation package for the electrical scope of supply.
    - A mechanical demolition/installation plan will be provided in PDF format with annotated pictures and drawing mark-ups to facilitate the removal of existing equipment and installation of the new equipment. This document in conjunction with the mechanical drawings will provide a complete installation package for the mechanical scope of supply.
- PLC Code – a copy of the governor program and OIT application will be provided to the Agency to restore the system if necessary.
- Factory Acceptance Testing (FAT) – following L&S's standard FAT procedures. A FAT plan will be submitted to the Agency for reference prior to FAT. The completed FAT report with all as-tested data will then be submitted to the Agency for their records.
- Site Acceptance Test (SAT) Report – following L&S's standard SAT procedures, a site acceptance test plan will be provided to facilitate proper commissioning activities. The completed report with documented as-commissioned data will be provided to the Agency for their records.
- Shipping – All equipment will be packaged in wood crates for transport and delivered to the Agency, incoterms DAP.

Clarifications:

1. Only fittings and tubing required to interconnect L&S supplied equipment are provided. Existing tubing that is not affected by the governor conversion is not intended to be replaced.
2. Installation fittings are Stainless Steel Swagelok compression fittings, and Type 304 stainless steel tubing.
3. The supply of electrical conduit or cable tray, or the routing design, is not included.
4. It is assumed that the Woodward SSG gear is ferrous material such as steel (in rare cases Woodward used non-magnetic materials for the gear). If it is non-magnetic, an alternate speed sensing approach must be considered such as an L&S supplied SSG or a wrap-around split gear at another location. These alternatives have not been considered in the bid price.
5. L&S interprets Task 5 from the RFP "Furnish fully engineering complete installation package" to include the field fittings and tubing required to make the hydraulic conversion. If the Agency wishes to purchase the fittings and tubing outside of this contract, L&S can provide a list of recommended fittings and tubing as an alternative. L&S would also provide the corresponding credit for these materials.
6. All documentation will be submitted electronically. Hardcopies of drawings, O&M Manuals etc. are not included.
7. Shipping at site (DAP) assumes a shipment using common carrier LTL will be acceptable. The proposal does not include a dedicated or flatbed truck.

Price..... $121,230.00

B **1** **Optional - L&S-2000 Main Distributing Valve**, consisting of:

- Main Distributing Valve rated for 2000 lit/min @ 1000 psi, featuring
  - Optimized Bushing design for the required flow
  - Timing Locking Nuts
  - Integrated LVDT sensor
- Standard Factory Acceptance Test
- Product Manual Documentation
- Closing Rate Limiter Assembly built-in

Valve adapter base with piping assembly to be mounted on the existing Woodward S Valve for ease of installation consisting of:

- Plate and pipe adaptor
- Steel materials
- Lower plate with O-rings is included
- Upper assembly to be pipe welded to steel block to interface with LS-2000
- The adapter base will be hydrostatically tested

Clarifications:

1. Refer to the proposal sketch SK230013 for a typical assembly layout.
2. Fabrications and materials for the adapter base will be in accordance with ASME B 31.1 without certification.
3. The adapter base is estimated based on information gathered on Woodward Governors. The bolt pattern, ports and flange dimensions of the existing assembly base must be confirmed during the onsite kick-off meeting.
4. The rate limiter control solenoid valve is included in item A.
5. The required D03 Pilot Control Manifold with an ATOS proportional Valve is included in item A.
6. The required duplex filter is included in item A.
7. A credit is reflected in the Item B price for the LVDT assembly from Item A that would no longer be necessary.

Price Adder to Item A $28,050.00

C 1 Optional – Pump Unloader Retrofit

Two (2) Hydraulic Unloader Valve Retrofit Kits (one per pump). Each of the individual Hydraulic Unloader Valve Retrofit Kits includes the following items shipped to site for field installation by others:

- One (1) Control Valve Mounting Plate
- One (1) 120VAC Directional Control Valve
- One (1) Sandwich Timing Valve (Dual timing A&B ports)
- Two (2) Connector Fittings (pressure supply and drain connection)
- One (1) Cable for Directional Control Valve Solenoid 30 feet
- One (1) Assembly Drawing

Clarifications:

1. Installation is not included.
2. Refer to the attached example.

Price $12,765.00

D 1 Optional – Sump Tank Level and Temperature Sensing

- One (1) Mounting Plate
- One (1) Level Transmitter (4-20mA)

- One (1) Temperature Transmitter (4-20mA)
- Two (2) Sensor Cables (10m)
- Arrangement drawing and Parts List

Price $5,695.00

E 1 Optional - Pressure Tank Level Sensing Assembly, including:

- One (1) Level Sensing Chamber
- One (1) Level Transmitter (4-20mA)
- One (1) Visual level indicator (flip-over polycarbonate flags)
- (lot) Isolating valves and fittings
- Arrangement drawing and Parts List

Price $12,440.00

F 1 Optional – Air Admission Assembly

The air admission assembly consists of a solenoid operated directional valve with manual override lever for manual operation. A check valve is included as well as inlet and outlet isolation valves. All interconnecting fittings are Swagelok and the complete assembly is attached to a wall mount bracket. A filter is supplied and plumbed complete with the air admission valve assembly to filter supply air. An assembly drawing and parts list will be provided.

Price $8,355.00

G 1 Optional – Recommended Spare Parts

A detailed recommended spare parts list with manufacturer part numbers will be offered after the detailed design is complete. The detailed recommended spare parts list is intended to offer additional spare parts that may be requested by South Feather Water and Power Agency, or to account for final quantities and special parts identified during the design phase of the project. At a minimum, the recommended spare parts list below reflects the major components of the proposed solution listed in Item A above. This item is optional and can be revisited at any time during the project. If not purchased at the beginning of the project, all parts listed below will be verified and submitted during the project phase with the detailed recommended spare parts list for the Agency to consider purchasing from L&S, or though their preferred vendor.

Qty	Description
1	Proportional Valve
1	Shutdown Solenoid Valve
1	LVDT (Main Valve Spool Position)
1	Solenoid valve (Rate Limiter)
1	Proximity Sensor (Speed Sensing)
1	Gate Position MLDT
10	Filter Element
1	PLC Processor
1	Analog Input Module
1	Analog Output Module
1	Digital Input Module
1	Digital Output Module
1	High Speed Counter Module
1	PLC Power Supply
1	Cabinet Power Supply
5	Digital Input Relay – 125vdc, 16A
5	Digital Input Relay – 24vdc, 16A
5	Digital Output Relay – 24vdc, 8A
5	Digital Output Relay – 24vdc, 10A
1	PT Interface Module
1	Magelis GTO, 10.4” Color Touchscreen

Price $23,145.00

H lot Installation Supervision Services

The governor system installation supervision services will consist of one field service representative and is estimated to be five (5) 10-hour day onsite, plus prep time, travel time, airfare, and travel expenses.

The Site Checkout and Commissioning Services will be provided on a T&M price basis per attached rate sheet, applying a **10% discount** to those rates. Please provide three weeks notification for scheduling.

Price estimate $30,535.00

I lot Start-up/Commissioning Services

The governor system commissioning services will consist of one field service representative and are estimated to be one (1) 10-hour day onsite for wiring checks and four (4) 10-hour onsite days for the governor system commissioning plus prep time, daily travel time and travel expenses. The commissioning service is intended to start immediately following the installation supervision. Additional airfare expenses for a separate trip have not been included in the estimate.

The Site Checkout and Commissioning Services will be provided on a T&M price basis per attached rate sheet, applying a **10% discount** to those rates..

Price estimate $13,575.00

J lot Onsite Training Services

The governor system onsite training services will consist of one field service representative and are estimated to be one (1) 8-hour day onsite for hands-on training, plus training material prep time, daily travel time and travel expenses. The training service is intended to start immediately following commissioning. Additional airfare expenses for a separate trip have not been included in the estimate.

The Site Training Services will be provided on a T&M price basis per attached rate sheet, applying a **10% discount** to those rates.

Price estimate $3,535.00

K lot Optional – Customer Witness Testing

This option includes one (1), eight (8) hour day for the Agency to witness factory testing and equipment demonstration at the L&S facility in Wisconsin.

Price $2,500.00

X 1 Optional - Custom Programming to Address Varying Reservoir Head

The automatic configuration lookup based on head level can be done with programming, and we have done this in the past and on a current project for a Kaplan unit. This would provide automatic changes to the necessary settings including break-away etc. The 25% variation in head would be handled by the same programming if necessary.

Price $7,230.00

PRICES

Prices included in this quotation are firm for the duration of the quote. All prices included with this quotation are provided in US currency. All prices do not include any applicable sales or use taxes. If applicable, taxes will be payable by the Customer.

PAYMENT TERMS

The following progress payment schedule is proposed and shall apply to this quotation:

10% - Due upon Receipt of Purchase Order
50% - Due upon submission of drawings. The drawings to be included as part of the submittal shall be agreed upon between South Feather Water and Power Agency and L & S Electric, Inc.
30% - Due upon shipment of equipment
10% - Due upon successful completion of project or 90 days after shipment of equipment, whichever is first.

Payment terms for services provided on a Time and Expense basis are based on monthly progress and shall be invoiced on a monthly basis.

All payments are due net 30 days from date of invoice. Holdback or retainage shall not apply. Wire transfer of payments to a financial institution defined by L & S Electric, Inc. is preferred.

ORDER PLACEMENT

In the event that a purchase order is issued for this project, the purchase order shall be made out to:

L & S Electric, Inc.
5101 Mesker Street
P.O. Box 740
Schofield, WI 54476-0740

DELIVERY

L&S will take commercially reasonable efforts to comply with delivery times. However, L&S may be reliant on downstream suppliers for components of deliverables which may limit L&S's ability to meet requested specific delivery times. Accordingly, L&S disclaims any time is of the essence terms, or other definitive delivery date/time commitments and will make deliveries as and when L&S is commercially able. L&S will communicate anticipated delivery timing as it becomes available.

WARRANTY

The standard Warranty Period for non-excitation goods shall be one (1) year. For excitation systems, the Warranty Period shall be effective for a period of two (2) years. The applicable

Warranty Period shall begin after signing of the Certificate of Commercial Operation ("COCO") or 90 days after equipment delivery, whichever is first.

If a defect occurs during the Warranty Period, [Company] shall provide prompt written notice to L&S and as the sole and exclusive remedy, L&S shall repair or replace the Goods, f.o.b. L&S' factory, unless such defect was caused by an act of [Company], including but not limited to: misuse; improper storage, maintenance, installation; unauthorized modification; or incorporation into other equipment not provided by L&S. All labor-related costs including, but not limited to: of disassembly, in-and-out charges, and transportation shall be borne by [Company]. The warranty provides for the supply of replacement hardware due to failure of components during intended operation. Labor required to replace hardware due to warranty claims shall be the responsibility of the [Company]. Costs associated with materials being damaged due to improper field installation, where installations were not performed by L&S, shall not be the responsibility of L&S.

PERFORMANCE DELAY

Neither party will be considered to be in default or in breach of its obligations under any Purchase Order resulting from this Quotation due to any act of God or nature, act of civil or military authority, embargo or other governmental act, regulation or request, fire, flood, epidemic, pandemic, accident, strike, slowdown or other labor difficulty, war, riot or any other delay beyond such party's control that affects the other party's ability to receive or use the product(s) or services as provided in this Quotation and any Purchase Order resulting from this Quotation. In the event of such delay, the date of delivery will be extended for a period equal to the time lost because of the delay. No term or condition of any Purchase Order will modify or nullify this provision.

TEST EQUIPMENT

The L&S excitation, protection, and synchronizing system commissioning requires the verification of the CT/PT circuits for proper installation. This CT/PT circuit testing is typically verified utilizing a 3-phase test set. The Customer is responsible for the supply of the test equipment for the duration of the L&S excitation, protection, and synchronizing system commissioning. If the Customer cannot provide test equipment, either thru ownership or rental, L&S can supply the test equipment at a rate $100/day with a $300 minimum charge not to exceed $1500 per unit commissioning or service. The L&S supplied test equipment supply fee will be provided as a project expense - payable by the Customer.

TERMS AND CONDITIONS

This quotation is provided based on L&S's standard terms and conditions.

Our quotation is based on our understanding of the project specifications in conjunction with the technical proposal(s) provided and L&S clarifications/exceptions submitted as part of this quotation. Please advise us of any additions or deletions that you would like to make to the scope of supply.

We thank you for the opportunity to provide this quotation. If you should have any questions or need any additional information, please feel free to contact us.

Sincerely,

L & S ELECTRIC, INC.

Chris Van Asten
Sales Territory Manager,
Power Control Solutions
P: 715.241.3443
M: 715.573.0233
E: cvanasten@lselectric.com

Standard Terms and Conditions of L & S Electric, Inc. – 2022

1. **Agreement of Sale.** Unless a separate contract is executed by both parties, which shall govern this order, the following shall apply:

   a. In consideration hereof, "Buyer" seeks to purchase from L & S Electric, Inc. (the "Seller") the product, part, equipment, accessories, or material ("Goods") and/or scope of work ("Services") described in the applicable quotation of Seller ("Quote") and Seller seeks to provide such to Buyer.

   b. Any of the terms and provisions of Buyer's order ("Purchase Order") which are additional or different with the terms and provisions hereof, shall not be binding on the Seller and shall not be considered applicable to the sale or shipment of Goods and/or performance of Services hereunder. Buyer shall be bound by these Terms and Conditions ("Terms") upon: (i) issuing a purchase order; (ii) Seller begins to order materials or begins Services; (iii) Seller ships Goods to Buyer, and/or (iv) Buyer accepts delivery of Goods and/or allows Services, whichever occurs first.

   c. This writing is intended by the Seller and Buyer as a final and exclusive expression of this agreement and no course of dealing or usage of trade or course of performance shall be relevant to explain or supplement any term expressed in these Terms. No waiver or modification of any of the Terms shall be valid unless it is made in writing and signed by both parties. The failure of the Seller to enforce any right possessed under the Terms shall not constitute a waiver thereof or establish a custom.

   d. In the event of conflict between contract documents and for scope of work clarity, the order or precedent shall be: (i) any duly executed Change Orders, (ii) the Quote, (iii) these Terms and Conditions, (iv) the Purchase Order (excluding all terms and conditions thereof), and (v) Buyer's drawings, designs and specifications.

2. **Prices and Term of Payment.** Except as may be set forth in the Quote or other mutually agreed contract document, standard terms of payment are cash in full within thirty (30) days of invoice date. All orders are subject to the approval of the Seller's Credit Department and the Seller may require full or partial payment in advance, prorated or milestone payments shall become due as shipments or other deliverables are made or as set in the Quote. If Buyer fails to comply with terms of payment, or otherwise materially breaches, Seller reserves the right to cancel the unfilled portion of any contractor order, but Buyer shall remain liable for all unpaid accounts and for any other damages due Seller as a result of Buyer's breach of these Terms. To the extent allowed under law, Seller may charge the maximum lawful interest rate on past due amounts. Any expenses associated with collections on past due invoices shall be paid by Buyer. Buyer is responsible for all sales, use, occupation, excise or similar tax which Seller invoices as a separate line item, unless a valid tax exemption certificate, acceptable to the appropriate taxing authorities, is provided at time of order.

   a. **Goods:** Prices listed in the Quote are estimates. Seller reserves the right to modify prices based on supplier cost changes. Prices are not firm until confirmed by the suppliers at time of shipment.

   b. **Services:** Prices shall be based on the applicable time and material ("T&M") rate sheet or lump sum total figure in the Quote.

3. **Delivery of Goods and Freight.** Delivery shall be made via Seller's truck when at all possible, with the risk of loss on Seller until time of delivery. In the case that the Buyer is either out of Seller's delivery territory or Buyer requires the material prior to Seller's delivery date, material will be shipped via the best common carrier, f.o.b. manufacturer's facility, where the risk of loss, delay, and damage in transit is on Buyer. Seller will take commercially reasonable efforts to comply with delivery times. However, Seller may be reliant on suppliers for deliverables which may limit Seller's ability to meet requested specific delivery times. Accordingly, Seller disclaims "time is of the essence", or other definitive delivery date/time commitments and will make deliveries as and when Seller is commercially able. Seller will communicate anticipated delivery timing as it becomes available. Any penalty clause or a liquidated damage provision for failure to meet shipment are not acceptable unless specifically approved in writing by an officer of the Seller and included in the Quote.

4. **Changes.** Seller shall have the right, with the prior approval of Buyer, to make changes in the Goods and to substitute equivalent Goods where such changes or substitutions are deemed necessary by Seller to prevent delays in manufacture or delivery or to improve the performance, producibility, stability, control, utility, maintenance or appearance of the Goods provided that such changes or substitutions shall not adversely affect the price, time of delivery, or performance of the equipment nor significantly affect its design, weight or balance. The cost of such changes shall be borne by Seller. Either party shall have the right to propose changes in the Goods or the Services to the other party prior to delivery provided that no such change shall be binding on either party until incorporated into a Change Order to this effect, executed by an authorized representative.

5. **Held Orders.** For any order held, suspended, delayed or rescheduled at the request of the Buyer, Seller may, at its sole option:

   a. **For Goods**: (i) require full or partial payment, based on a prorated portion of the contract price plus any additional expenses and costs resulting from such a delay, (ii) pass through increases in prices of Goods when suspension or hold is lifted, and/or (ii) store the Goods at the sole cost and risk of loss of the Buyer. Payment for such price, expenses and costs, in any such event, shall be due by Buyer within thirty (30) days from date of Seller's invoice. Any order so held delayed or rescheduled beyond six (6) months will be treated as a Buyer termination. In the event of nonpayment or abandoned Goods, Seller may dispose of any stored Goods for which payment has not been received without any liability to Buyer. Buyer shall still owe for such storage fees and the contract price.

   b. **For Services**: (i) charge for full or partial payment, based on a prorated portion of the contract price plus any additional expenses and costs resulting from the delay, including but not limited to demobilization, remobilization, hotel accommodations, travel expenses, subcontract labor cost increases, equipment rental charges, and/or (ii) extend the project schedule for additional time to perform.

6. **Titles.** The title to and right of possession of the Goods (or any part or portion thereof) furnished by the Seller shall remain in the Seller and the Goods shall remain personal property until paid for in full, and the Buyer shall do all acts necessary to perfect and maintain such right and title in the Seller.

7. **Warranty.** TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER STATUTORY, EXPRESS, VERBAL OR IMPLIED (WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE AND WARRANTIES ARISING FROM COURSE OF DEALING OR PERFORMANCE OR USAGE OF TRADE ARE HEREBY WAIVED).

a. **Goods**. Seller shall assign, to the extent able, any warranty of the Goods. For that Warrant Period, the Goods shall: (i) strictly conform to the description and specifications in the Quote; (ii) are free from defects in workmanship, materials and design, to the extent designed by Seller; and (iii) be new, unless mutually agreed otherwise. Continued use or possession of the Goods after the expiration of the Warranty Period shall be conclusive evidence that the warranty is fulfilled to the full satisfaction of the Buyer, who agrees thereafter to make no further claim on the Seller.

- **Non-excitation Goods**: Unless the Quote states differently, the standard Warranty Period shall be one (1) year from the shipment of the Goods.

- **Excitation Goods:** The Warranty Period for excitation products shall be effective for a period of two (2) years. The applicable Warranty Period shall begin after signing of the Certificate of Commercial Operation ("COCO") or 90 days after equipment delivery, whichever is first.

- **Remedies**: If a defect occurs during the Warranty Period, Buyer shall provide prompt written notice to Seller and as the sole and exclusive remedy, Seller shall repair or replace the Goods, f.o.b Seller's factory, unless such defect was caused by an act of Buyer, including but not limited to: misuse; improper storage, maintenance, installation; unauthorized modification; or incorporation into other equipment not provided by Seller. All labor-related costs including, but not limited to: of disassembly, in-and-out charges, and transportation shall be borne by Buyer. The warranty provides for the supply of replacement hardware due to failure of components during intended operation. Labor required to replace hardware due to warranty claims shall be the responsibility of the Buyer. Costs associated with materials being damaged due to improper field installation, where installations were not performed by Seller, shall not be the responsibility of Seller.

- **Return of Goods.** No Goods shall be returned to the Seller without written authorization and shipping instructions first having been obtained from the Seller under a warranty claim or due to non-conforming goods. In event of non-conforming Goods, Buyer must provide written notice to Seller within seven (7) days of delivery, and to the extent applicable, Seller shall pass through the remedies of the original equipment manufacturer.

b. **Services**. Unless the Quote states differently, if Services are provided by Seller, Buyer shall, at the time of the completed Services review the work. If Buyer feels that the Services do not conform to the specifications and description in the Quote, Buyer must provide written notice to Seller to allow Seller to cure by repairing, reperforming, correcting, or replacing work that fails to conform to these warranties, including without limitation the removal of any non-conforming Services. Any Services not rejected within three (3) business days after completion shall be deemed accepted.

8. **Force Majeure.** The Seller will not be considered to be in default or in breach of its obligations for any delay or failure in performance under these Terms resulting from circumstances reasonably beyond the control of Seller, including but not limited to: any act of God, weather delays or nature, act of civil or military authority, embargo, public enemy, or other governmental act, regulation or request, fire, flood, epidemic, pandemic, casualties or accident, strike, slowdown or other labor difficulty, industry wide supply chain delays, delays in transportation and shortage of cars, fuel, power, labor or materials, war, riot or any other delay beyond Seller's control that affects its ability to perform hereunder. In the event of such delay, the date of delivery and/or performance will be extended for a period equal to the time lost because of the delay. No term or condition of any Purchase Order will modify or nullify this provision. Seller shall provide written notice to Buyer within a reasonable time of the event giving rise to the claim. Seller shall exercise commercially reasonable efforts to mitigate and communicate with Buyer.

9. **CONSEQUENTIAL DAMAGES.** NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY UNDER THESE TERMS, WHETHER DUE TO BREACH OF CONTRACT, TORT, NEGLIGENCE, WARRANTY, STRICT LIABILITY OR OTHERWISE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE WHETHER OR NOT SUCH LOSS OR DAMAGE IS CAUSED BY THE FAULT OR NEGLIGENCE OF SUCH PARTY, ITS EMPLOYEES, AGENTS OR SUBCONTRACTORS, INCLUDING WITHOUT LIMITATION LOSS OF PROFITS OR REVENUE, COST OF CAPITAL, LOSS OF USE OF EQUIPMENT OR FACILITIES, COST OF PURCHASED OR REPLACEMENT POWER OR CLAIMS OF CUSTOMERS DUE TO LOSS OF SERVICE, OR LOSS OF ANTICIPATED BUSINESS SUFFERED OR INCURRED BY THE OTHER PARTY.

10. **LIMITATION OF LIABILITY.** NOTWITHSTANDING ANYTHING TO THE CONTRARY HEREIN OR ELSEWHERE, WHERE SELLER'S LIABILITY HAS NOT OTHERWISE BEEN LIMITED AND TO THE EXTENT ALLOWED UNDER THE LAW, SELLER'S TOTAL AGGREGATE LIABILITY TO THE OTHER PARTY, OR ANY INDIVIDUAL OR ENTITY CLAIMING THROUGH SUCH PARTY, FOR ANY CLAIM OF ANY KIND, REGARDLESS OF THE FORM OF ACTION, INCLUDING BUT NOT LIMITED TO NEGLIGENCE, ESTOPPEL, COMMON LAW, TORT, CONTRACT, OR STRICT LIABILITY, IN EQUITY, OR ANY OTHER THEORY, ARISING OUT OF, RESULTING FROM OR RELATING TO THESE TERMS, INCLUDING ANY MAINTENANCE ORDERS, SHALL NOT EXCEED THE SUM OF THE FEES ACTUALLY PAID BY THE BUYER TO SELLER UNDER THE APPLICABLE PURCHASE ORDER GIVING RISE TO THE CLAIM.

11. **Mutual Indemnification.** Each party ("Indemnifying Party") shall indemnify, defend and hold harmless the other party, its officers, agents, subcontractors, ("Indemnified Parties") from any and all third-party claims, losses, expenses, costs, or damage of any kind allowed under these Terms, including reasonable outside attorneys' fees, ("Claims"), which are caused by the sole and exclusive fault of the Indemnifying Party or by another for which it is responsible. Buyer shall indemnify Seller as to any claims, losses, expenses, costs, or damage of any kind allowed under these Terms related to or resulting from Buyer's drawings, specifications, designs, uses of Goods provided hereunder, and any patent or intellectual property infringement arising therefrom.

12. **Termination.** Either Party may terminate these Terms or the Purchase Order, in whole or in part, for cause as of the date specified in a termination notice if the other Party: (a) files for bankruptcy; (b) breaches any other material obligation under these Terms and fails to take action to cure any such breach within ten (10) calendar days after receipt of written notification of any such breach. Either Party may terminate these Terms or the Purchase Order for convenience, in whole or in part, at any time by giving the other party at least thirty (30) days prior written notice of the termination date. In event of termination, Buyer shall make payment to the Seller for all work performed and in progress prior to the date of termination as a prorated portion of the contract price, plus reasonable wrap-up costs, including cancellation fees and restocking charges.

13. **Confidential Information.** "Confidential Information" means all information whether of a technical, business, financial or other nature (including, without limitation, trade secrets, know-how and information relating to the technology, customers, business plan, copyrights, trademarks, patents, promotional and marketing activities, finances and other business affairs) that is or may be disclosed or imparted by one party ("Disclosing Party") to

the other ("Receiving Party"), whether or not marked "confidential", including both the existence and content of discussions between the parties with respect to a potential or actual business transaction or relationship as well as these Terms. Confidential Information may be in any written format, including an email and electronic media, or orally. The Receiving Party shall protect the Confidential Information of the Disclosing Party to the extent it would protect its own confidential information, but in no event not less than a commercially reasonable standard of care. This provision shall not apply to any information which is (i) now or becomes generally available to the public in the future, other than through acts or omissions of the Receiving Party or its Representatives in violation of these Terms, (ii) lawfully obtained by the Receiving Party from sources independent of Disclosing Party without receiving Party's knowledge of the information being governed by a confidentiality agreement or obtained under a legal or fiduciary obligation, or (iii) independently developed by the Receiving Party or the Receiving Party's Representatives without reference to the Confidential Information of the Disclosing Party. The fact that information included in the Confidential Information is or becomes otherwise available to the Receiving Party or its Representatives under clauses (i) through (iii) above shall not relieve the Receiving Party or its Representatives of the prohibitions of the confidentiality provisions of these Terms respect to the balance of the Confidential Information. If disclosure is requested under law, immediate written notice shall be provided to the Disclosing Party to allow time to seek an injunction or other protective measures, should they desire.

14. **Buyer Provided Documentation.** Buyer is to provide all necessary project related information prior to the project award per the Quote consistent with the mutually agreed upon schedule. Buyer is to verify the accuracy of the provided information prior to submitting it to Seller. Any discrepancies between the Buyer-supplied documentation and/or variations in actual site conditions from those indicated in the Buyer-supplied documentation as discovered during the project phase, may result in additional charges applicable via duly executed change order(s). If the Buyer supplied drawings are not verified by Seller, any design and/or drawing updates associated with said are done at the Buyer's risk, Seller shall not be responsible for any discrepancies. Seller is available to provide services on a time and materials ("T&M") basis to help verify and update the documentation. Buyer shall indemnify Seller as to any losses related to or resulting from Buyer's drawings, specifications, designs, product uses, and any patent or intellectual property infringement arising therefrom.

15. **Buyer Project Support.** Buyer is to provide knowledgeable operations, electrical and mechanical personnel familiar with site conditions to assist Seller's personnel during data collection site visits and project commissioning as stated in the Quote. Additional charges may result if the appropriate Buyer personnel are not available. System delays/waiting time and or weather delays, not due to Seller's equipment, should be reasonable and may result in additional charges.

16. **Intellectual Property.** All Confidential Information, proprietary knowledge, trade secrets, business knowhow, copyrights, and other intellectual property rights owned by a party prior to this Purchase Order or created outside of this Purchase Order, shall be held and solely owned by that party ("Background Intellectual Property"). Either party may use the Background Intellectual Property of the other party only to the extent required to perform hereunder. To the extent that Background Intellectual Property is necessary to reap the benefits of this agreement, a party shall give the other party a worldwide, non-exclusive, fully paid, perpetual, non-transferable license as to the necessary Background Intellectual Property for the sole and limited purpose that the party can use the Goods as contemplated hereunder. Upon final and full payment of the purchase price, Seller hereby assigns to Buyer, to the extent able, licenses to the embedded software in the Goods, which are owned by a third party and licensed to Seller in connection with the Goods, subject to all end user licensing agreements of the third party.

    a. **PLC Programming Source Code.** To the extent applicable, Seller clarifies that the PLC programing source code of the governor and/or excitation control systems ("Software") is noncommercial software that has been developed by Seller at private expense and shall not be deemed to have been produced under work produced for the equipment included in this quotation and is Seller's Background Intellectual Property. The Software, including modifications of the Software, is restricted Software, developed at private expense and is trade secret, which is confidential, privileged and proprietary to Seller as Seller's Background Intellectual Property. Software is being provided under restricted rights licenses. The Software delivered under these Terms may not be used, reproduced, or disclosed by Buyer except as follows. The Software may only be:

        - Used or copied for use with the governor and/or excitation control system for which it was acquired;
        - Used or copied for use with a backup processor if the processor on which it was installed is inoperative;
        - Reproduced for safekeeping (archives) or backup purposes;
        - Modified, adapted, or combined with other processor software, provided that the modified, adapted, or combined portions of the derivative Software incorporating any of the delivered, processor Software shall be subject to same restrictions set forth in these Terms;
        - Disclosed to and reproduced for use by support service contractors or their subcontractors, subject to the same restrictions set forth in these Terms (except that this limitation will not apply if Seller no longer supports such Software); and
        - Used or copied for use with a replacement processor.

    b. **Third Party software.** Notwithstanding any other provision in these Terms or any Purchase Order, the Buyer shall have only restricted rights in the Software required to be delivered or otherwise provided to the Buyer under these Terms. Ownership of all other software, which is not Seller's Background Intellectual Property and owned by another third party, which Seller is required to be delivered or otherwise provided to the Buyer under these Terms, will reside with the applicable third party, upon Buyer agreeing to the end user licensing agreement of the third-party software provider.

17. **Successors and Assigns.** These Terms shall inure to the benefit of and be binding upon the successors and permitted assigns of the parties. Either party may assign with the written permission of the other party, which may be withheld for any reason.

18. **Governing Law.** All Purchase Orders shall be governed by and construed according to the laws of the State of Wisconsin.

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

Power Control Solutions

1810 County Road XX
Rothschild, WI 54474 USA
Phone: 715.359-3155
877.258-5128
Fax: 715.355-5948
Web: www.lselectric.com

August 7, 2023

South Feather Water and Power Agency
2310 Oro-Quincy Highway
Oroville, CA 95966

Subject: Sly Creek Governor System Upgrade – No Conflict of Interest

Dear Mr. Newkirk:

This letter is to address the requirements of section 3.2 of the Request for Proposal for the Sly Creek Powerhouse Governor Control System Replacement.

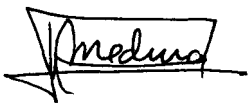
L&S Electric, Inc. (the Supplier) hereby covenants with, and represents and warrants to South Feather Water and Power Agency that, as of the proposal submission date, the following representations and warranties are true:

That unless otherwise disclosed to South Feather Water and Power Agency in writing, the Supplier's performance of the Services will not create any conflict of interest in relation to any services provided by the Supplier to any other party prior to or subsequent to installation and commissioning of the governor system.

We look forward to continuing to build a good working relationship with South Feather Water and Power Agency and completing this project successfully.

Sincerely,

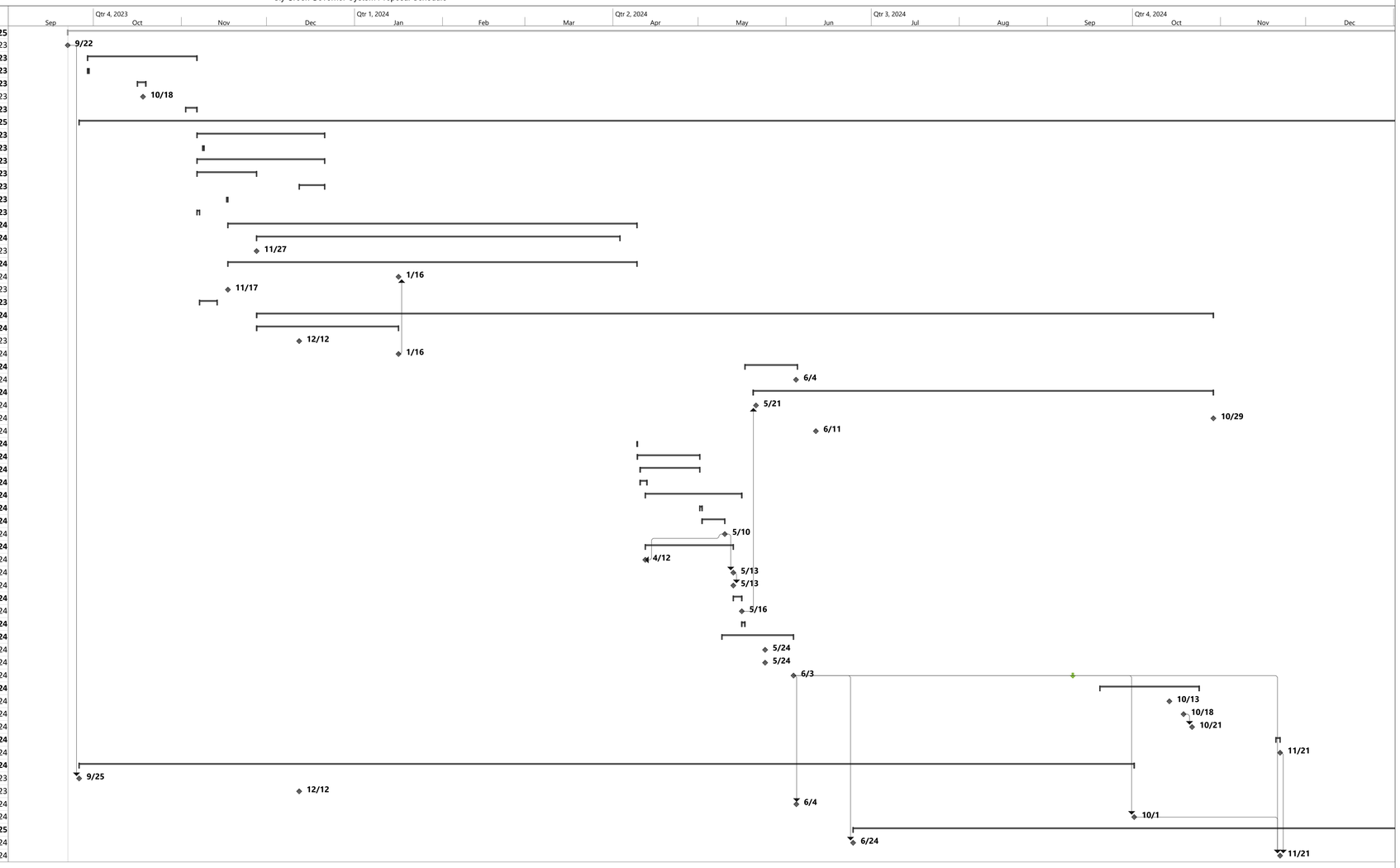
L & S ELECTRIC, INC.



Juan Medina
Sales and Marketing Manager
Power Control Solutions
P: 715.241.3410
E: jmedina@lselectric.com

South Feather Water and Power Agency
Sly Creek Governor System Proposal Schedule

ID	Complete	Task Name	Start	Finish
0	0%	**QE06476 Sly Creek Proposal Schedule**	**Fri 9/22/23**	**Tue 1/7/25**
1	0%	Receipt of PO or Notice to Proceed from Customer (Estimated)	Fri 9/22/23	Fri 9/22/23
2	0%	**Project Initiation**	**Thu 9/28/23**	**Mon 11/6/23**
7	0%	**Preliminary System Engineering**	**Fri 9/29/23**	**Fri 9/29/23**
9	0%	**Site Visit / Kickoff Meeting**	**Mon 10/16/23**	**Thu 10/19/23**
11	0%	Site Visit / Kickoff Meeting	Tue 10/17/23	Wed 10/18/23
13	0%	**Post Site Investigation**	**Thu 11/2/23**	**Mon 11/6/23**
16	0%	**Project Executing**	**Mon 9/25/23**	**Tue 1/7/25**
17	0%	**Project Design**	**Mon 11/6/23**	**Thu 12/21/23**
18	0%	**Engineering Design Support**	**Wed 11/8/23**	**Wed 11/8/23**
20	0%	**Electrical Design**	**Mon 11/6/23**	**Thu 12/21/23**
26	0%	**Mechanical Design**	**Mon 11/6/23**	**Mon 11/27/23**
30	0%	**Installation Engineering**	**Tue 12/12/23**	**Thu 12/21/23**
34	0%	**Recommended Spare Parts List Creation**	**Fri 11/17/23**	**Fri 11/17/23**
37	0%	**Project Programming**	**Mon 11/6/23**	**Tue 11/7/23**
40	0%	**Project Material Procurement**	**Fri 11/17/23**	**Tue 4/9/24**
41	0%	**Long Lead Project Material Procurement**	**Mon 11/27/23**	**Wed 4/3/24**
42	0%	Long Lead Material Procurement	Mon 11/27/23	Mon 11/27/23
44	0%	**Project Material Procurement**	**Fri 11/17/23**	**Tue 4/9/24**
45	0%	Project Material Procurement	Tue 1/16/24	Tue 1/16/24
47	0%	Spare Parts PO Requisition	Fri 11/17/23	Fri 11/17/23
49	0%	**Project Documentation**	**Tue 11/7/23**	**Mon 11/13/23**
58	0%	**Project Submittals**	**Mon 11/27/23**	**Tue 10/29/24**
59	0%	**Design Submittal**	**Mon 11/27/23**	**Tue 1/16/24**
61	0%	Design Submittal Customer Review	Tue 11/28/23	Tue 12/12/23
64	0%	Installation Engineering Submittal	Mon 1/15/24	Tue 1/16/24
65	0%	**As-Manufactured Drawings Submittal**	**Fri 5/17/24**	**Tue 6/4/24**
67	0%	As-Manufactured Drawings Submittal Customer Review	Mon 5/20/24	Tue 6/4/24
69	0%	**Final FAT, SAT and O&M Submittal**	**Mon 5/20/24**	**Tue 10/29/24**
70	0%	Final FAT Submittal	Mon 5/20/24	Tue 5/21/24
71	0%	Final SAT Submittal	Mon 10/28/24	Tue 10/29/24
72	0%	Final O&M Manuals Submittal	Mon 6/10/24	Tue 6/11/24
73	0%	**Release Drawings for Manufacturing**	**Tue 4/9/24**	**Tue 4/9/24**
75	0%	**Manufacturing**	**Tue 4/9/24**	**Wed 5/1/24**
78	0%	**Electrical Manufacturing**	**Wed 4/10/24**	**Wed 5/1/24**
80	0%	**Mechanical Manufacturing**	**Wed 4/10/24**	**Fri 4/12/24**
82	0%	**FAT System Testing**	**Fri 4/12/24**	**Thu 5/16/24**
83	0%	**Pre-Factory Acceptance Testing (Pre-FAT)**	**Wed 5/1/24**	**Thu 5/2/24**
86	0%	**Factory Acceptance Testing (FAT)**	**Thu 5/2/24**	**Fri 5/10/24**
89	0%	FAT Complete	Fri 5/10/24	Fri 5/10/24
90	0%	**Optional Customer Witness Testing**	**Fri 4/12/24**	**Mon 5/13/24**
91	0%	Notified Customer of Witness Testing	Fri 4/12/24	Fri 4/12/24
92	0%	Optional Customer Witness Test at L&S Electric	Fri 5/10/24	Mon 5/13/24
93	0%	Customer Witness Testing Complete	Mon 5/13/24	Mon 5/13/24
94	0%	**Post Factory Acceptance Testing (Post-FAT)**	**Mon 5/13/24**	**Thu 5/16/24**
97	0%	Post-FAT Complete	Thu 5/16/24	Thu 5/16/24
98	0%	**As-Manufactured Document**	**Thu 5/16/24**	**Fri 5/17/24**
102	0%	**Shipping**	**Thu 5/9/24**	**Mon 6/3/24**
103	0%	E-mail Shipment Notification to Customer	Fri 5/24/24	Fri 5/24/24
106	0%	Equipment Shipped	Fri 5/24/24	Fri 5/24/24
108	0%	Equipment Delivered To Site	Mon 6/3/24	Mon 6/3/24
109	0%	**Installation Supervision, Commissioning & Training**	**Thu 9/19/24**	**Thu 10/24/24**
114	0%	Installation Supervision	Tue 10/8/24	Sun 10/13/24
116	0%	Commissioning & Daily Travel (Confirm)	Tue 10/15/24	Fri 10/18/24
117	0%	Onsite Training	Mon 10/21/24	Mon 10/21/24
122	0%	**As-Installed Documentation**	**Wed 11/20/24**	**Thu 11/21/24**
125	0%	As-Installed Drawings Submittal to Customer	Thu 11/21/24	Thu 11/21/24
126	0%	**Billing Milestones**	**Mon 9/25/23**	**Tue 10/1/24**
127	0%	Milestone-Setup Billing Template & Bill Receipt of PO	Mon 9/25/23	Mon 9/25/23
128	0%	Milestone-Approval of Detail Design Submittal	Tue 12/12/23	Tue 12/12/23
129	0%	Milestone-Delivery of Equipment	Tue 6/4/24	Tue 6/4/24
130	0%	Milestone-120 Days After Delivery of Equipment	Tue 10/1/24	Tue 10/1/24
131	0%	**Project Closure**	**Mon 6/24/24**	**Tue 1/7/25**
132	0%	Clean Off Project Shelf	Mon 6/24/24	Mon 6/24/24
133	0%	Project Complete	Thu 11/21/24	Thu 11/21/24



Project: QE06476 Sly Creek Pro
Date: Mon 8/7/23

Task | Milestone | Project Summary | Inactive Milestone | Manual Task | Manual Summary Rollup | Start-only | External Tasks | Deadline | Critical Split | Manual Progress
Split | Summary | Inactive Task | Inactive Summary | Duration-only | Manual Summary | Finish-only | External Milestone | Critical | Progress

Certificate of Registration

nqa global assurance

This is to certify that the Quality Management System of:

L & S Electric, Inc.

Power Contral Solutions
1810 County Road XX
Rothschild WI 54474
United States of America

applicable to:

Design, manufacture, system integration, installation and repair of automation systems, electrical systems, hydraulic systems and related products.

has been assessed and approved by
National Quality Assurance, U.S.A., against the provisions of:

ISO 9001:2015

Certificate Number:	12103/3
EAC Code:	19
Certified Since:	December 19, 2001
Valid Until:	October 26, 2023
Reissued:	October 27, 2020
Cycle Issued:	October 27, 2020

For and on behalf of NQA, USA

ANAB ACCREDITED ISO/IEC 17021 MANAGEMENT SYSTEMS CERTIFICATION BODY

MRT 2.1 Speed Governor System

Dedicated People, Quality Products, and Above All, Service.

An innovative and cost-effective control solution that offers high-performance and versatile control for new or existing hydro turbines.

Applications

- Designed for Francis, Kaplan and Impulse turbines of up to two needles
- Retrofits existing mechanical, analog, and early digital governor systems
- Complete governor system replacements
- New installations

Advantages

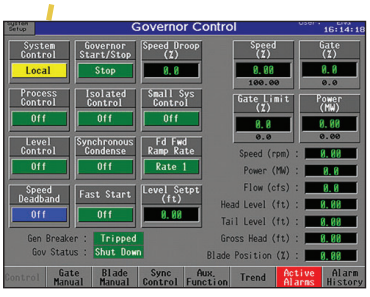
- Standardized design has a fast delivery and reduces installation, spare parts, and training costs
- Same functionality available in two PLC hardware platforms
- Off-the-shelf components ensure availability and cost-effectiveness of spare parts
- Proven control algorithms offer fast system and accurate response
  - Standard PID
  - PIDD and enhanced transient capability
- User configurable to facilitate integration into existing control systems to meet current and future requirements
- Designed to replace existing governor systems with minimal downtime

High-Performance and Versatile Control

- Meets speed governor standards: IEEE-125, IEEE-61362, IEC 60308, ASME PTC-29
- Speed, position, power, flow, and level control
- Isolated, off-line, on-line control (dedicated PID parameters for each)
- 3D CAM optimizes turbine efficiency
- Speed step test and trending for model validation
- Synchronous condense, brake control, and creep detection
- Auto-Manual, Local-Remote operation
- Automatic synchronization capability

Powerful and Cost-Effective Design

- User-friendly color touch-screen interface (HMI) to configure/control/tune the system
- Test and Alarm screens for easy troubleshooting
- Ability to force outputs for system and hardware verification
- Configurable I/O facilitates installation and functional expansion
- Communication options easily integrate with plant's IEDs and SCADA systems
- Two speed channels: pulses from pick-up sensor signal or signal from PT
- Two inputs available for redundant gate positioning sensing
- Selectable interface language (English or Spanish)



L&S Electric Engineering Division

Main Office
1810 County Rd. XX
Rothschild, WI 54474
866.292.8755

Canadian Office
5055 rue Viger
St-Hubert (Quebec) J3Y 8Y9
450.448.8880

Proven Solutions for the Hydroelectric Industry

www.lselectric.com

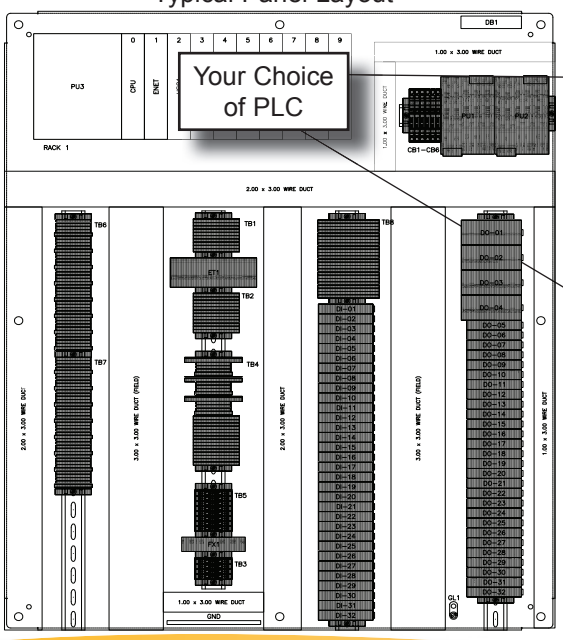
Options

- Integrated Auto Synchronization
- Power Transducer
- Redundant Power Supply
- Cooling Fan
- Emergency Stop Push button
- Custom cabinets and panel arrangements
- Touchscreen sizes: 7.5 in., 10.4 in., 15 in.

Specifications

- NEMA 12 enclosures
  - Wall-mount cabinet (standard) (H × W × D)
    42 in. × 36 in. × 16 in.
    {1067 mm × 914 mm × 406 mm}
- Weight: Approximately 200 lb {91 Kg} depending on options
- Power supply:
  - Output: 24 VDC, 20 A
  - Input: 120 VAC or 240 VAC (50 or 60 Hz), or 125 VDC or 250 VDC
- Input/Output Modules:
  - 32 digital inputs with 2500 V of isolation, hardware selectable for 24 VDC, 48 VDC, 125 VDC, or 120 VAC inputs on a per channel basis
  - 28 Digital outputs with 2500 V of isolation, output contact rating = 10 A@ 240 VAC or 3A @ 150 VDC, 0.5 A @ 125 VDC
  - 8 Analog inputs (Differential) 14- or 16-bit resolution 0/4 – 20 mA
  - 8 Analog outputs 14-bit resolution 0/4 – 20 mA
- Communication interface:
  - Standard: ModBus TCP/IP or Ethernet/IP (Allen Bradley)
  - Optional: Serial RS485 or RS232 ModBus port
  - Optional: Managed Ethernet switch to expand number of ports
  - Optional: Ethernet protocol converts
- Environmental:
  - Storage Temperature:
    32 °F to 140 °F {0 °C to +60 °C}
  - Operating Temperature:
    32 °F to 122 °F {0 °C to +50 °C}
  - Max relative humidity 95% (non-condensing)
- General Performance
  - Speed dead band: < 0.02%
  - Governor dead time: < 0.2 s
  - Speed stability index < 0.1%
  - Power stability index < 0.4%
- Standard Parameter Adjustment
  - Proportional gain: 0 – 20
  - Integral action time: 0 – 9.999 1/s
  - Derivative time: 0 – 9.999 s
  - Permanent speed droop: 0 – 10%

Typical Panel Layout



Modicon M340

Allen-Bradley ControlLogix

L&S Electric Engineering Division

Main Office
1810 County Rd. XX
Rothschild, WI 54474
866.292.8755

Canadian Office
5055 rue Viger
St-Hubert (Quebec) J3Y 8Y9
450.448.8880

Proven Solutions for the Hydroelectric Industry

www.lselectric.com

2.3 Typical L&S MRT 2.1 Based Control System Diagram

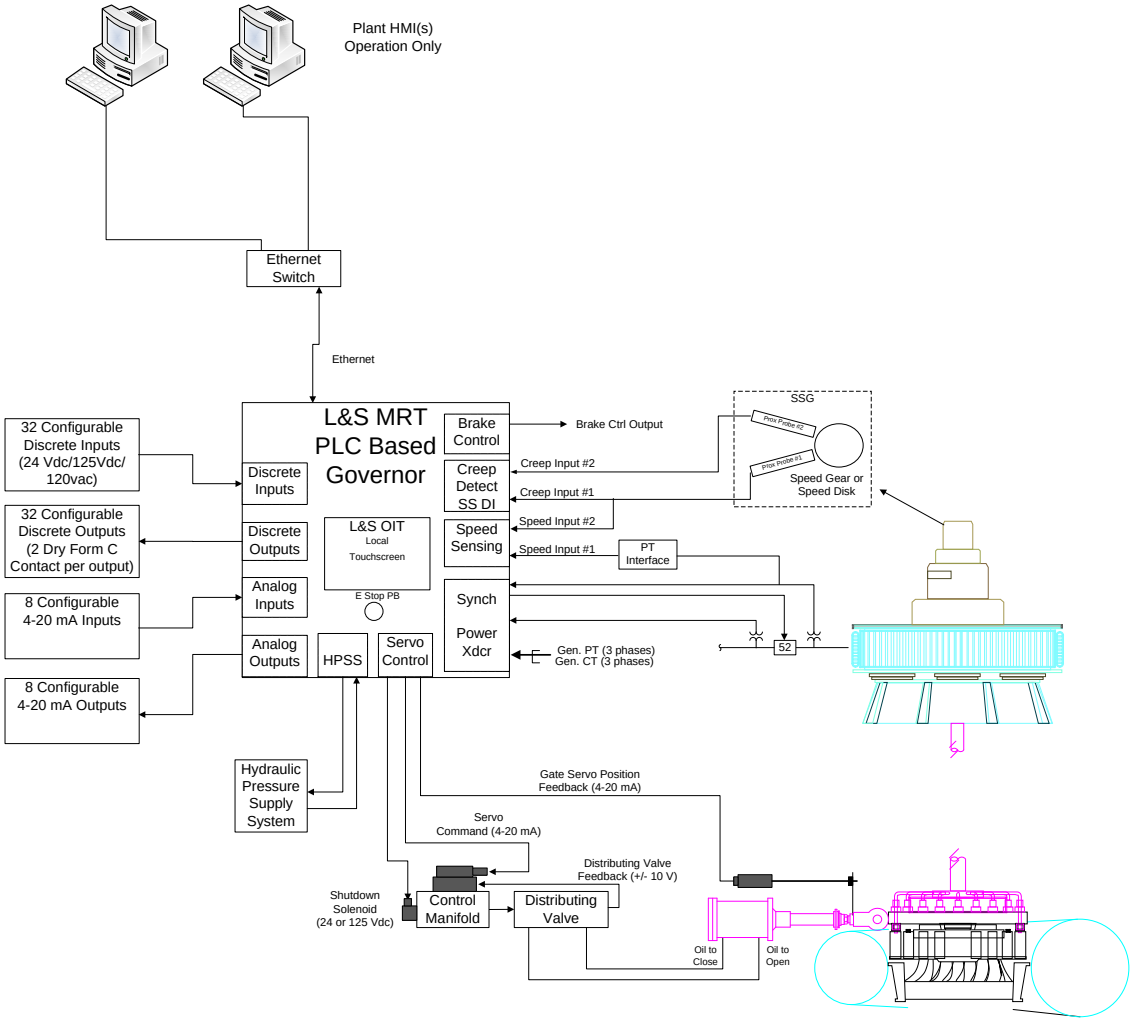
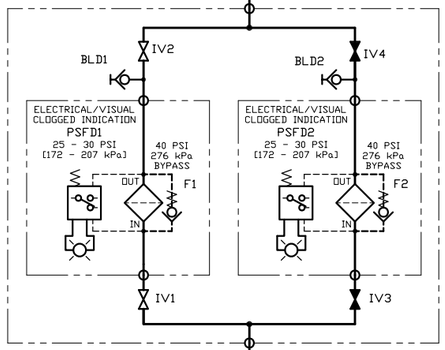
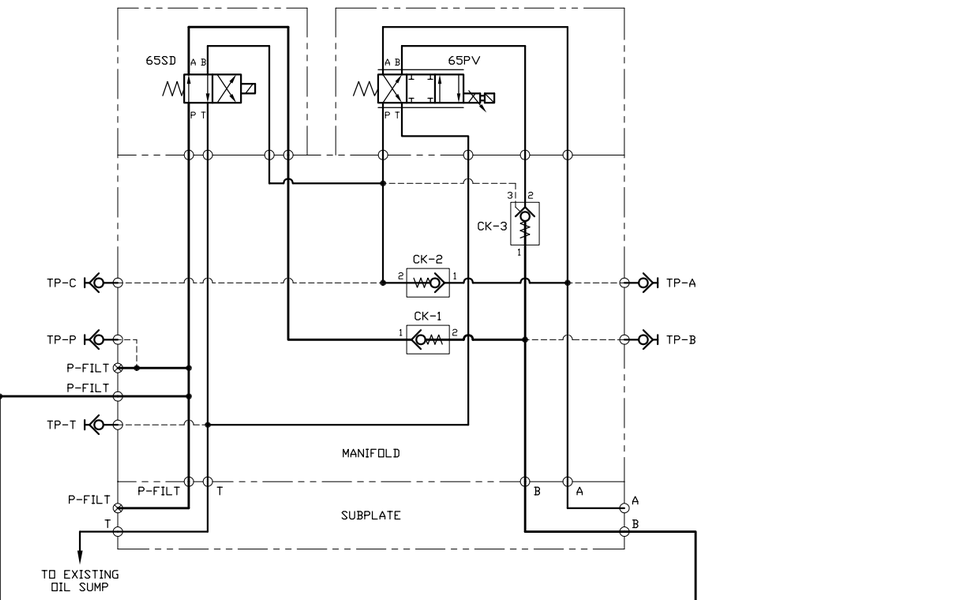


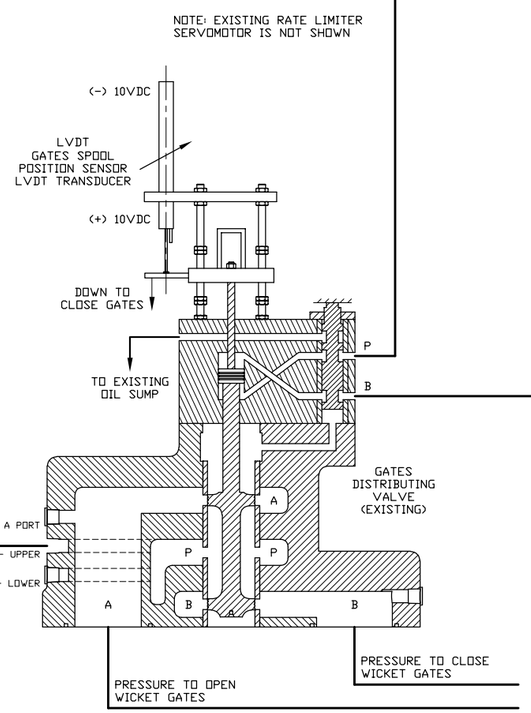
Figure 1: Typical L&S MRT 2.1 Digital Governor Control System Diagram (Francis Turbine)

The MRT2.1 governor cabinet we are proposing is deigned to mount flush in the cabinet in place of the existing control panel shown in the picture to the right.

WARNING: OIL FLOW THROUGH THE DUPLEX FILTER MUST NEVER BE CLOSED OFF WITH THE SYSTEM ON-LINE. ONE OR BOTH OF ISOLATION VALVE PAIRS IV1-IV2 OR IV3-IV4 MUST REMAIN OPEN WITH THE SYSTEM ON-LINE. CLOSING OFF OIL FLOW THROUGH THE DUPLEX FILTER WITH THE SYSTEM ON-LINE WILL RESULT IN A LOSS OF CONTROL!







DRAWING NOTES

1. THIS DRAWING IS PRELIMINARY, NOT ALL COMPONENTS OF THE EXISTING CONTROL SYSTEM ARE REPRESENTED ON THIS DRAWING. THE EXISTING DISTRIBUTING VALVE AND PIPING ARE SHOWN IN SIMPLIFIED FORM ON THIS DRAWING.

DEVICE LEGEND

BLD1,2	BLEED POINT, DUPLEX OIL FILTER ASSEMBLY
CK-1	CHECK VALVE, LINE P
CK-2	CHECK VALVE, LINE A
CK-3	CHECK VALVE, LINE B
F1,2	FILTER, DUPLEX OIL FILTER ASSEMBLY
IV1,2	ISOLATION BALL VALVES, FILTER F1
IV3,4	ISOLATION BALL VALVES, FILTER F2
LVDT	POSITION ELEMENT, GATES DISTRIBUTING VALVE
P-FILT	PORT, PRESSURIZED FILTERED OIL INLET/OUTLET
PSFD1,2	PRESSURE SWITCH, OIL FILTER DIRTY INDICATION
TP-A	TEST POINT, OIL LINE 'A'
TP-B	TEST POINT, OIL LINE 'B'
TP-C	TEST POINT, PROPORTIONAL VALVE OIL SUPPLY
TP-P	TEST POINT, INTAKE OIL SUPPLY LINE
TP-T	TEST POINT, OIL LINE 'T'
65PV	ELECTRONIC PROPORTIONAL VALVE
65SVR	SOLENOID VALVE, SHUTDOWN

DWG NO	SHT	REFERENCES

REV	REVISION AND RECORD OF ISSUE	DATE	BY	CHKD	APPR

DSGN	DRWN	CHKD	ISSU	DATE
–	CVA			

FILE	DATE	TIME	USER	VERS
SK230013	08-07-23	07:55	CVA	2018

L & S Electric, Inc.
Power Control Solutions
Rothschild, Wisconsin U.S.A
INTEGRATED SOLUTIONS LEGENDARY SERVICE

L & S PROJ NO QE06476
L & S DWG NO SK230009

CLIENT SOUTH FEATHER WATER AND POWER AGENCY
OROVILLE CALIFORNIA
SLY CREEK

TITLE
SLY CREEK HYDRO PLANT
UNIT 1
GOVERNOR UPGRADE
PROPOSED HYDRAULIC SCHEMATIC DIAGRAM

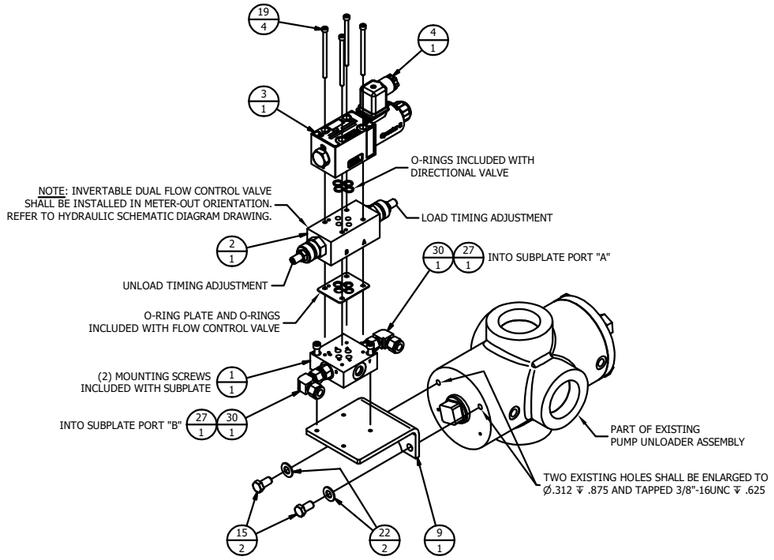
SIZE	CLIENT PROJ NO	CLIENT DWG NO	REV
D			New

SCALE	CODE	SHEET
.1875" = 1"		1 OF 1

PLOT FACTOR:

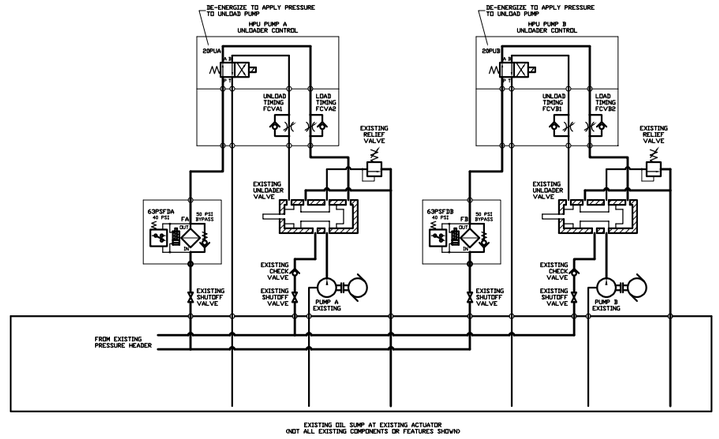
LS_DV_03

(22 x 34)



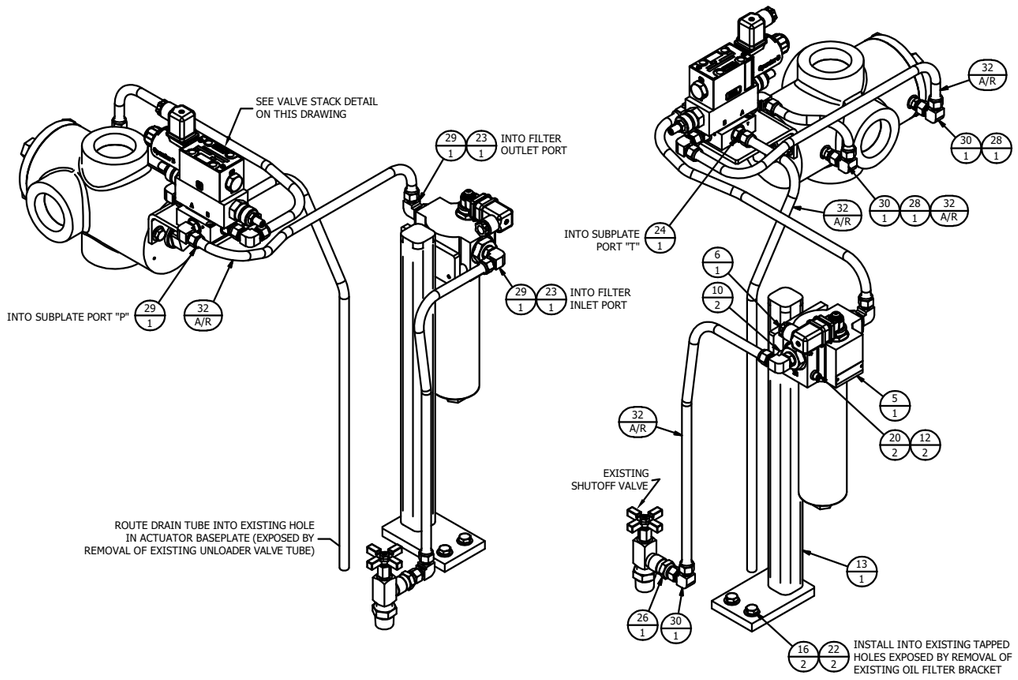
VALVE STACK DETAIL

PART IDENTIFICATION
00 PART NUMBER
00 QUANTITY



DRAWING NOTES

1. PRELIMINARY DESIGN SHOWN



TYPICAL PUMP UNLOADER DETAILS

REFERENCE: 0.250 = 1.000
1 0 1 2 3 4 5 INCHES

DWG NO	SHT	REFERENCES

REV	REVISION AND RECORD OF ISSUE	DATE	BY	CHKD	APPR

DSGN –	DRWN CVA	CHKD	ISSU	DATE
FILE SK230013	DATE 08-07-23	TIME 07:55	USER CVA	VERS 2018

L & S Electric, Inc.
Power Control Solutions
Rothschild, Wisconsin U.S.A.

L & S PROJ NO QE06476
L & S DWG NO SK230011

CLIENT SOUTH FEATHER WATER AND POWER AGENCY
OROVILLE CALIFORNIA
SLY CREEK

TITLE
SLY CREEK HYDRO PLANT
UNIT 1
GOVERNOR UPGRADE
OPTIONAL UNLOADER RETROFIT

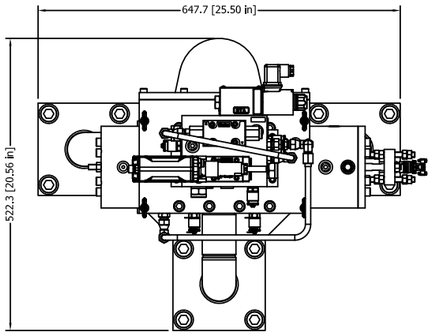
SIZE	CLIENT PROJ NO	CLIENT DWG NO	REV
D			New

SCALE .1875" = 1" | CODE | SHEET 1 OF 1
PLOT FACTOR:

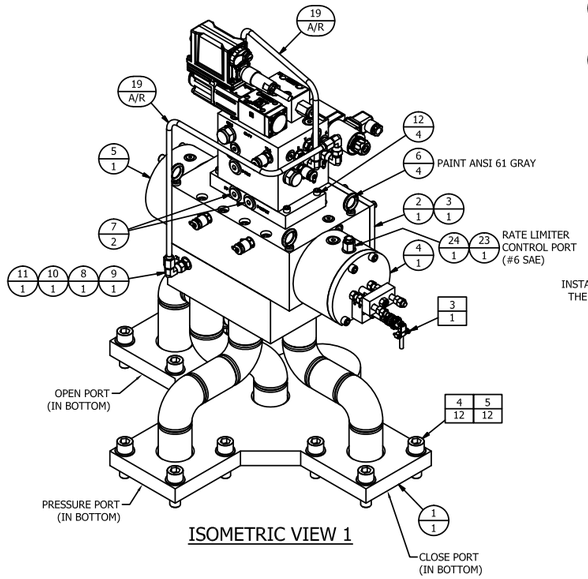
LS_DV_03

(22 x 34)

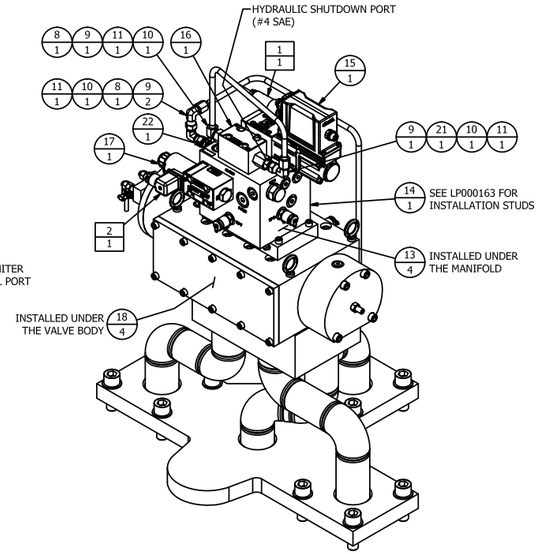
CODE	DWG NO	SHT	REV
	SK230013	1	New



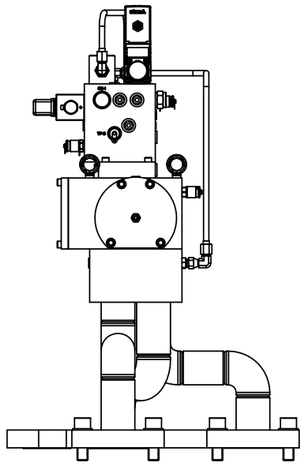
TOP



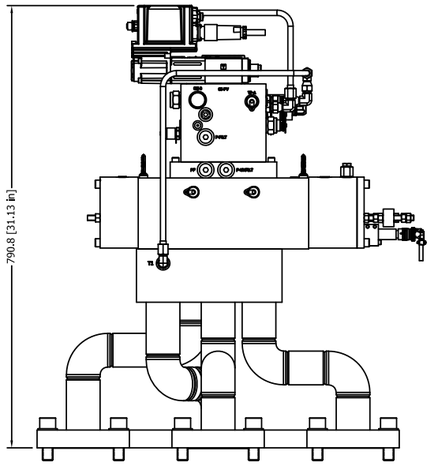
ISOMETRIC VIEW 1



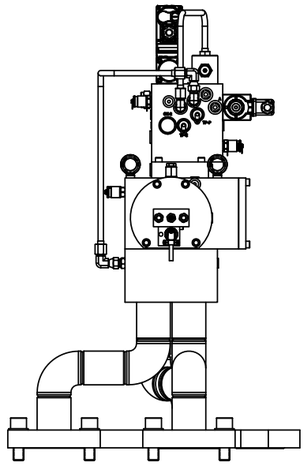
ISOMETRIC VIEW 2



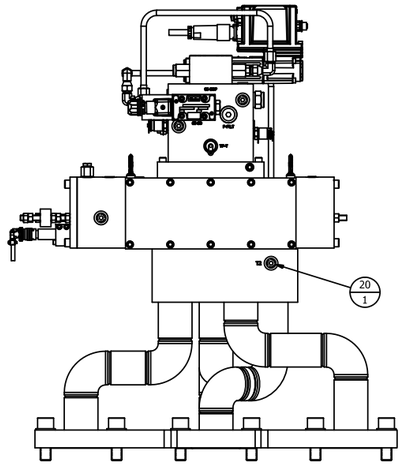
LEFT



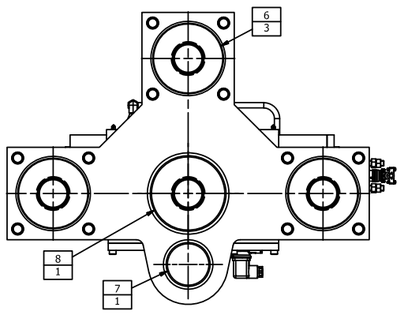
FRONT



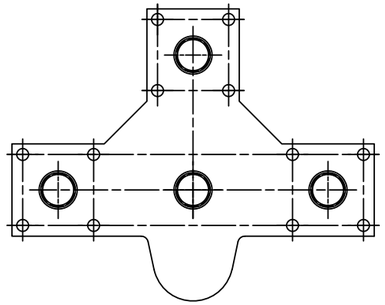
RIGHT



BACK



BOTTOM



MOUNTING DETAILS

THIRD ANGLE PROJECTION

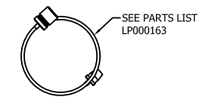
LS_DV_03

(22 x 34)

DRAWING NOTES

1. DIMENSIONS: MILLIMETERS [INCHES]

PART IDENTIFICATION
PART NUMBER QUANTITY (00 / 00) SUPPLIED ASSEMBLED
PART NUMBER QUANTITY [00 / 00] SUPPLIED LOOSE



TEST HOSE

DWG NO	SHT	REFERENCES
		–

REV	REVISION AND RECORD OF ISSUE	DATE	BY	CHKD	APPR

DSGN	DRWN	CHKD	ISSU	DATE
–	CVA			03-09-21
FILE SK230013	DATE 08-03-23	TIME 07:55	USER CVA	VERS 2018

L & S Electric, Inc.
Power Control Solutions
Rothschild, Wisconsin U.S.A

L & S PROJ NO QE06476
L & S DWG NO SK230013

CLIENT SOUTH FEATHER WATER & POWER AGENCY
OROVILLE CALIFORNIA
SLY CREEK

TITLE
SLY CREEK
UNIT 1
GOVERNOR UPGRADE
OPTIONAL DISTRIBUTING VALVE ASSEMBLY

SIZE	CLIENT PROJ NO	CLIENT DWG NO	REV
D			New

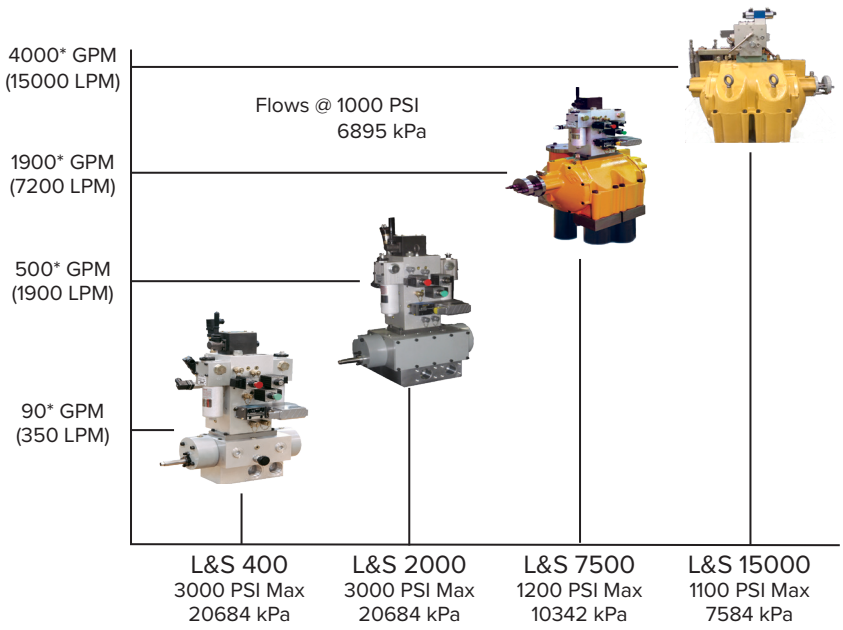
SCALE .1875" = 1" | CODE | SHEET 1 OF 1

PLOT FACTOR:

Hydro Governor Distributing Valves

Dedicated People, Quality Products, and Above All, Service.

The L&S Distributing Valves offer diverse levels of pressure and flows for optimum control of hydroelectric turbine actuators (servomotors)



*Note: Need to be verified with piping design.

Benefits

- Simple, elegant design with a successful track record
- Servo-Grade operation with Zero-Lap characteristics
- Timing control via locking nuts to ensure safety and repeatability
- Frequency response 4 to 5 times faster than old mechanical and analog governor systems
- Cost effective spare parts
- Design allows for the mounting of valve assembly near or at servos for the best valve/hydraulic stability, and for the most cost effective piping arrangement

Features

- Maximum flow adjustment via solid locking nuts
- Valve porting can be specified to accommodate pressure and flow needs
- “A” and “B” ports (open and close control ports) can be reversed in the field if necessary
- No external pinch points
- “O” ring sealing for leak free operation
- Safety shutdown systems:
  - Proportional valve shutdown upon power loss
  - Fail-safe shutdown solenoid valve

ISO 9001 L&S CERTIFIED

Locations

Dedicated People, Quality Products, and Above All, Service.

L&S Electric, Inc. is a world wide leading supplier of integrated solutions for the Power Generation Industry. We serve clients throughout the United States, Canada, Asia, Europe, Central and South America.

Product Support located in:

- Quebec, CA
- British Columbia, CA
- North Dakota
- Minnesota
- Iowa
- Wisconsin
- Texas
- Michigan

Value Added Resellers (VAR) located in:

- Argentina
- Colombia
- Costa Rica
- Guatemala
- Ecuador
- Peru
- Chile
- Singapore

L&S Electric Inc.
Engineering Division

Main Office
1810 County Road XX
Rothschild, WI 54474
877.258.5128

Proven Solutions for Power Generation
www.lselectric.com

ENGINEERING DIVISION
1810 County Road XX
Mosinee, WI 54455 USA
Phone: 715.359.3155
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Dave R. Bishoff

Lead Mechanical Engineer

Over 40 years of proven experience in designing hydro governor systems: flyweight mechanical, analog electrical, and digital control systems. Extensive experience in designing float valves, relief valves, unloader and distributing valves. Current experience with the design of high flow main distributing valves, oil filtering systems, pumping systems, unloader valves and hydraulic pressure units (HPUs).

Education:

University of Illinois, Champaign, IL
Bachelor's Degree of Science – Mechanical Engineering

Notable Achievements:

- Awarded three U.S. Patents in the development of float valves, relief valves, unloader valves and distributing valves.
- Distributing valve development:
  - L&S-15,000, a 4000 GPM valve with a 1100 PSI rating (2002-2003)
  - L&S-7500, a 1900 GPM valve with a 1500 PSI rating (1999-2000)
  - L&S-2000, a 500 GPM valve with a 3000 PSI rating (2008)
  - L&S-400, a 100 GPM valve with a 3000 PSI rating (2004)
  - Woodward FC-20,000, a 5000 GPM valve with a 1100 PSI rating (used on the Three Gorges plant) (1996-1998)
  - Woodward FC-5000, a 1350 GPM valve with a 1500 PSI rating (1994-1996)
  - Woodward FC-1250, a 330 GPM valve with a 1500 PSI rating (1992-1994)
  - Developed a new smaller 3" 1100 PSI distributing valve, "D" Valve (1980)
  - Redesigned the 4" to 6" 1100 PSI distributing valve (1970)
- Presented the Technical Paper: *"100 years of Oil History in Hydro Turbine Governors"* at the Water Power 2009 Conferences
- Presented the Technical Paper: "Evolution of Hydro Governing Distributing Valves" at Hydro Vision International 2011Conferences

Continuing Education/Training:

American Red Cross Certification
- CPR/PDT

L&S Electric, Inc.
- Confined Spaces

- Electrical Safety Practices
- Fall Protection
- Forklift
- Hazard Communication
- Hearing Protection
- Lockout/Tagout Authorized
- Respirator Protection

Metro Fire Department

- Fire Safety

Parker Hannifin

- Fittings

ENGINEERING DIVISION
1810 County Road XX
Rothschild, WI 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Jonathan Fisher

Service Engineering Specialist

Mr. Fisher has supported several areas including manufacturing and testing of control systems, hydraulics systems and field services. In providing field services, Mr. Fisher effectively uses his background to perform factory testing, installation, installation supervision, and commissioning of PLC based control systems for hydroelectric power plants.

Education:

Northcentral Technical College, Wausau, WI
Associate of Arts, Programmer & Analyst

Northcentral Technical College, Wausau, WI
Associate of Arts, Electro-Mechanical Technician

Notable Projects:

- Xcel Energy – Units A-B Shoshone Falls Hydro Plant (2020)
  - Installation supervisor or installing new exciters and changing out components from a flood.
  - Commissioning changed out components and ensure that the units work as before.
  - Assisting with commissioning of exciters.
- Cloverland Electric Cooperative – 74 units (2019 – present)
  - FAT
  - Installation supervisor of installing new exciters, GCC and retrofit HPU system
  - Commissioning
- GRDA – Pensacola Power Plant, Unit 6 and 3(2019 and 2020)
  - FAT
  - Commissioning MRT
  - Training
- Big Valley Electric/SCSF – Unit 1 - 2 Holm Powerhouse (2019 to 2020)
  - Combined 6-needle impulse governor and custom unit control solution
  - FAT
  - Commissioning
  - Training
- Gracon Corp./Consumers Energy – Luddington Pump Storage Plant (2019)
  - Liquid rheostat automatic control system
  - Programming Verification
  - Commissioning
- South Carolina Electric & Gas – Saluda, Unit 1,2,3,4(2017-2019)
  - Factory testing
  - Installation supervisor

    - Mechanical installation
    - Electrical installation
    - Commissioning
    - Training
- US Army Corp – Florida, Unit 1,2,3 (2017)
    - Installation supervisor
    - Mechanical installation
    - Electrical installation
    - Commissioning
    - Training
- US Army Corp – Georgia, Unit 1,2,3 (2017)
    - Installation supervisor
    - Mechanical installation
    - Electrical installation
    - Commissioning
    - Training
- US Army Corp – Alabama, Unit 1,2,3 (2016)
    - Installation supervisor
    - Mechanical installation
    - Electrical installation
    - Commissioning
    - Training
- US Army Corp – Alabama, Unit 1,2,3,4 (2016)
    - Installation supervisor
    - Mechanical installation
    - Electrical installation
    - Commissioning
    - Training
- City of Tacoma – LaGrande, Unit 1 (2015)
    - Mechanical installation
    - Commissioning
- Canyon Industries, Unit 1 (2015)
    - Complete FAT testing
- First Light – Northfield Mountain Pump Storage, Unit 1,2,3,4(2015)
    - Installation supervisor
    - Commissioning
- City of Tacoma – Cushman #1, Units 21,22 (2014)
    - Mechanical installation
    - Commissioning
- NYPA – Cresent (2015)
    - Installation supervisor
    - Commissioning
- NYPA – Visher Ferry (2013-2015)
    - Installation supervisor
    - Assisted with the field wiring for the exciter, governor, protection and unit control
    - Assisted with the installation, commissioning and testing for the governors and unit controls
- NYPA – Ashokan (2013-2015)

  - MRT testing
  - Commissioning
- South Carolina Electric & Gas – Fairfield Pumped Storage Hydro Plant, Units 1-8 and Station Service (2012-2015)
  - Bentley Communications troubleshooting
  - FAT assistance
  - Installation support
  - Commissioning support
  - SAT assistance
- Puget Sound Energy – Snoqualmie Falls, Snoqualmie, WA

Continuing Education/Training:

- L&S Electric, Inc.
  - OSHA 30 General
  - OSHA 30 Construction
  - OSHA 10 Construction
  - Rigging Safety
  - Respiratory Protection
  - Confined Space Awareness
  - Hazcom & GHS
  - Emergency Action Plan
  - Heat Stress
  - Personal Protective Equipment
  - Hand &Power Tools
  - BBP
  - Disciplinary Program
  - Asbestos Awareness
  - Record keeping
  - Fall Protection
  - Hearing Conservation
  - Welding, Cutting, Brazing
  - Fire Extinguishers
  - Exits
  - Lockout/Tagout

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

Power Control Solutions
1810 County Road XX
Rothschild, WI 54474 USA
Phone: 715.359.3155
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Lawrence Whitney

Senior Controls Engineer

Over 20 years experience in the power systems industry and engineering and experience with the installation, testing and troubleshooting of automatic control systems. Developed software and operator interface specifications, drawings, bill of materials, I/O lists, control programs, databases, manuals and test documents for various control system platforms.

Education:

University of Wisconsin – Madison, WI
B.S.E.E. Electrical Engineering
Electrical and Computer Engineering, Computer Sciences

Notable Achievements:

- Standard governor development and maintenance
- Development and implementation of custom control systems for various customers
- Advanced technical proficiency of a wide variety of control system hardware and software from different manufacturer's

Notable Projects:

- Xcel Energy – Units A-B Shoshone Falls Hydro Plant (2020)
  - Integration of L&S AES-1000 exciter with existing programming
- BCHydro – Units 7 - 8 Bridge River Hydro Plant (2020)
  - Governor upgrade package
  - Merge settings from recently supplied units 1 - 2 and existing L&S governors
  - SAT and O&M documentation
- FortisBC – Units 3 - 4 Brilliant Hydro Plant (2020)
  - Upgrade procedure to implement enhancements after units 1 - 2 equipment combined governor and unit control equipment commissioning
- Big Valley Electric/SCSF – Unit 1 - 2 Holm Powerhouse (2019 to 2020)
  - Combined 6-needle impulse governor and custom unit control solution
  - Programming and O&M Development
  - FAT
  - Commissioning
  - Training
- FortisBC – Units 1 - 2 Brilliant Hydro Plant (2018 to 2019)
  - Combined governor and unit control platform migration/upgrade

  - Programming and O&M Development
  - FAT
  - Commissioning

- FortisBC – Units 1 - 4 Upper Bonnington Hydro Plant (2018)
  - Combined governor and unit control solution
  - Programming and O&M Development
  - FAT
  - Commissioning

- Gracon Corp./Consumers Energy – Luddington Pump Storage Plant (2018)
  - Liquid rheostat automatic control system
  - Programming Verification and O&M Development
  - Commissioning

- BCHydro - Seton Hydro Plant (2018)
  - Customization to customer-specific governor
  - Programming, O&M, and Training Document Development

- FortisBC – Units 3 - 4 Brilliant Hydro Plant (2017 to 2018)
  - Combined governor and unit control platform migration/upgrade
  - Programming and O&M Development
  - FAT
  - Commissioning

- CBK Power – Unit 4 Kalayaan II Hydro Plant (2017)
  - Governor platform migration/upgrade using custom standard governor
  - Programming and O&M Development
  - FAT
  - Commissioning

- BCHydro - Cheakamus Hydro Plant (2016, 2018)
  - Modifications for governor runback function
  - Commissioning

- USACE – Millers Ferry, Jones Bluff, Jim Woodruff, West Point (2016)
  - Governor upgrades
  - FAT
  - Commissioning

- First Light Power Resources – Unit 1 - 4 Northfield Mountain Pump Storage (2016)
  - Governor and unit control system upgrade
  - FAT
  - Commissioning

- Northwest Energy – Various Hydro Plants (2015-2020 on-going)
  - Customized standard governor solutions
  - Programming and O&M Development
  - FAT
  - Commissioning

- Yuba County Water Agency – Units 1 - 2 Colgate Powerhouse (2015-2020 on-going)
  - 6-needle impulse governors
  - Program modifications
  - Commissioning

- NAES/NYPA – East Delware Powerhouse (2015)
  - HMI Computer Upgrade
  - Commissioning

- SCG&E – Units 5 - 6 and Common Controls, Fairfield Pump Storage Hydro Plant (2014-2020 on-going)
  - Unit, governor and common control programming and O&M updates
  - Redundant common controller
  - FAT
  - Commissioning
  - Annual support/security updates

- Manitoba Hydro - Limestone Generating Station (2013-2018)
  - Programming and O&M Updates
  - Commissioning

- Salt River Project – Stewart Mountain Hydro Plant (2014)
  - HMI Computer Upgrade

- Manitoba Hydro - Kettle Generating Station (2014-2017)
  - Programming and O&M Updates

- BCHydro - Ruskin Generating Station (2014-2015)
  - FAT
  - Training
  - Variable power limiter program changes

- Canyon Industries – Harriet Powerhouse (2014-2015)
  - PLC programming
  - FAT customization

- International Boundary and Water Commission – Amistad Powerhouse (2014)
  - HMI and Maintenance Computer Upgrade
  - Commissioning

- NAES/NYPA – Neversink Hydro (2010-2014)
  - HMI programming
  - Update O&M manuals
  - Air admission commissioning/training
  - Engineering support
  - Programming changes

- NYPA – Ashokan, Crescent and Vischer Ferry (2013-2016)
  - Ashokan Units 1,2 FAT, SAT and O&M Volume 1 customization
  - Standard govenor programming and testing
  - On-site support
  - Programming changes
  - Commissioning

- FirstEnergy - Yards Creek Governor Controls (2011-2013)
  - Governor controller O&M
  - Training manual
  - Customer training
  - Engineering support
  - Commissioning

- United Kaiser Services - Glen Ferris Hydro Control Upgrades (2010-2014)
  - HMI and network programming
  - HMI training
  - Engineering support
  - Commissioning
  - Brake control programming

Continuing Education/Training:

- American Red Cross Certification
  - First Aid
  - CPR/PDT/AED

- OSHA 10 Safety Training

- Metro Fire Department
  - Fire Safety

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

Power Control Solutions
1810 County Road XX
Rothschild, WI 54474 USA
Phone: 715.359.3155
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Mike Rindfleisch

Lead Electrical Designer

Over sixteen years' experience in the electrical design of power and control systems for turbine and process applications, excitation systems, OEM panel customers including motor and drive control.

- Extensive experience using AutoCAD Electrical and Bentley MicroStation.
- Experience using AutoCAD Inventor Professional.
- Extensive experience using parts database and bill of material creation.
- Extensive experience creating control panel elementary diagrams, wiring diagrams and panel assembly diagrams.
- Experience creating mechanical part drawings and assembly diagrams.
- Experience creating field cable schedules, installation drawings and field installation instructions.
- Experience implementing customer specific drawing standards to meet requirements for projects.
- Has performed field verifications and measurements at customer sites.
- Experience performing Factory Acceptance Testing.
- Panel assembly and wiring experience in both the panel shop and customer site environments.

Education:

Northcentral Technical College, Wausau, WI

Associates Degree in Electromechanical Technology

Notable Projects:

- **Alliant Energy – Prairie Du Sac Hydro Station (2018-2019):**
  - Design of Excitation System, Pump Control.
- **Cloverland Electric Cooperative – Cloverland Electric Hydro Plant (2019):**
  - Design of Excitation System for 72 Units on 4 Bus Networks, Plant Battery & Distribution System
- **SCE&G – Saluda Hydro Plant (2018):**

- Design of Plant Control, Plant Protection, Unit/Governor Control, Vibration Monitoring, Control Room Communication Cabinet.
- Installation Engineering drawings.

- **Montana-Dakota Utilities Co. – Lewis & Clark Station (2017):**
  - Design of Redundant Excitation System.
- **Kodiak Electric Association – Terror Lake Hydroelectric Plant (2014):**
  - Design of Unit Control, Plant Control.
  - Installation Engineering drawings.
- **NYPA – Ashokan/Crescent/Vischer Ferry (2013-2014):**
  - Design of Unit Control, Turbine Control, Governor Control, Servo Control, Control Room Communication Cabinet.
  - Installation Engineering drawings.
- **SCANA – Fairfield Pumped Storage Facility (2012-2013):**
  - Design of Unit Control, Turbine Control, Governor Control, Servo Control, Control Room Communication Cabinet.
  - Installation Engineering drawings.
- **SaskPower - E.B. Campbell & Island Falls Hydro Plants (2009-2010):**
  - Design of Unit Control, Governor Control, Unit Protection Control, Remote I/O, Station Service Control.
  - Installation Engineering drawings.
- **USBR - Hoover/Parker/Davis Dams (2006-2007):**
  - Design of Unit Control, Governor Control, Generator Protection, Transformer Protection, Distribution Panels.
  - Performed site measurements and investigation prior to design.
  - Design consisting of PLC, protection equipment, distribution panels and control.

Continuing Education/Training:

Master Graphics
- AutoCAD Electrical Custom Training

Underwriters Laboratories, Inc.
- UL508A Industrial Control Panel Training
- UL Representative for L&S Electric, Inc.

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

Power Control Solutions
1810 County Road XX
Rothschild, WI 54474 USA
Phone: 715.359.3155
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

Terry Bauman

Engineering Manager

Engineering Manager at L&S Electric, Inc. 30+ years of experience in governors, unit control and protection in the utility industry. Terry has extensive experience with governors and control systems both on interconnected grids and running as independent islands. Responsibilities include development of equipment and functional specifications for governors and unit controls along with developing standards for governors..

Education: **Case Western Reserve University**
BS – Computer Engineering

Notable Achievements:

- Papers presented
  - "BC Hydro's Approach to Standardization of Unit Control", Hydro Review Magazine, November, 2006.
  - "Improving System Control with Digital Governors", Hydro Review Magazine, September, 2008.
  - "Modernizing Unit Controls at Hoover", Hydro Review Magazine, March, 2010
- Product development
  - Woodward 505H
  - L&S Electric MRT Governor
  - L&S Electric LS-AES Exciter

Notable Projects:

- Swift Power – Dasque Creek and Middle Creek Power Plants
  Turnkey project including unit control, protection, governor, excitation, and plant control.
  I was the lead control engineer on the project, responsible for designing the plant control, unit control, governor and protection. I also developed the conceptual plan for the generator and protection. I was responsible for the installation engineering, and commissioning of the plants.

- GCPA – Summer Falls and Main Canal Power Plants
  Turnkey project including governor and excitation upgrades.
  I was the lead control engineer on the project, responsible for design of the governor system, and selection of the excitation equipment. I was responsible for installation engineering, and commissioning of the plants.

L & S Electric, Inc.
Power Control Solutions
1810 County Road XX
Rothschild, WI 54474
Phone: 715.359.0551
Fax: 715.355.5948
Web:www.lselectric.com

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

Tyler Swan

Project Manager

Schedules and coordinates the technical and commercial aspects of all phases of project execution. Over six years of experience in Project Management, including managing industrial controls projects and hydroelectric controls projects.

Education: **University of Wisconsin - Platteville**
Bachelor of Science in Mechanical Engineering

Notable Projects with L&S:

- Metropolitan Water District of Southern California – Red Mountain
  - Exciter Replacement
  - Demo & Installation Design
- Pacific Gas & Electric Company – Halsey
  - Speed Sensing Assembly
- GRETEK PCH – Monobamba
  - New Governor Control System for a Pelton unit
  - New Standard Manifold
- Northwestern Energy – Black Eagle
  - Hydraulic Power Unit
  - Servomotor Assemblies
  - Governor Upgrade
- Brookfield Renewable – Colton Unit 3
  - Hydraulic Power Unit
  - Kidney Loop Filtration
- Myra Falls Mine – Thelwood
  - Advanced Combined Governor & Excitation System
  - Hydraulic Power Unit
- Northwest Territories Power Corporation – Taltson Hydro
  - Unit Control Upgrade
  - Governor Control Upgrade

INTEGRATED SOLUTIONS
LEGENDARY SERVICE

Power Control Solutions
1810 County Road XX
Rothschild, WI 54474 USA
Phone: 715.359.3155
Fax: 715.355.5948
Web: www.lselectric.com
ISO 9001 Certified

William Tarter

Projects and Technical Services Manager

Works with division management to define and develop company vision and goals, build and motivate project management and technical services teams, expand and maintain projects and services capabilities, build and manage technical services call center. Defines and schedules task assignments and works with managers, engineers and designers to implement designs. Interpret project specifications and interfaces with customers to define scope of work. Works to develop and implement new project management, technical services and engineering standards. Answers project related questions from project managers, customers, engineers and designers. Evaluates hires and manages project managers and technical services personnel. Supports customers with service and commissioning efforts.

Education: **University of Wisconsin – Platteville, Platteville, WI**
Bachelor of Science, Electrical Engineering

Notable Achievements:

- Pump Turbine with Individual Gate Controls Hydrovision Paper Project
- Management Institute, PMP Training
- South Carolina Contractors License
  - Business Management & Law
  - Electrical Contractor
  - Study of NEC – National Electric Code
  - Study of NFPA 72 – National Fire Alarm Code
  - Study of 29 CFR Part 1926 – Health and Safety Regulations for Construction

Experience:

- 1999 – 2001 Controls Engineer
  - Worked under the direction of senior engineers to develop electrical and software designs for hydroelectric automation control systems
  - Responsible for service and commissioning of hydroelectric automation control systems
- 2002 – 2006 Senior Controls Engineer
  - Lead efforts to develop electrical and software designs for hydroelectric automation control systems
  - Was responsible for service and commissioning of hydroelectric automation control systems
- 2007 – 2008 Lead Controls Engineer
  - Worked with and directed others to develop electrical and software designs for

hydroelectric automation control systems.
    - Define, refine and implement engineering standards, designs and practices
    - Was responsible for service and commissioning of hydroelectric automation control systems
- 2009 – 2011 Project Manager
    - Plans and directs engineers working on specific projects
    - Manages the development, implementation, and evaluation of hydroelectric control system designs
    - Oversees product construction, testing, installation and commissioning
- 2012 – 2019 Lead Project Manager
    - Interpret specifications, quotes and project requirements. Manage engineering projects, define work requirements, work with customers, define and schedule tasks and directs engineers, designers and support staff to successful completion and implementation of engineered systems
    - Work to develop and implement new engineering standards, designs and practices
    - Answers project related questions from customers, engineers and designers
- 2020 – Present, Projects and Technical Services Manager
    - Build and motivate Project Management and Technical Services teams
    - Expand and Maintain projects and services capabilities
    - Build and manage technical services call center
    - Interpret specifications, quotes and project requirements. Manage engineering projects, define work requirements, work with customers, define and schedule tasks and directs engineers, designers and support staff to successful completion and implementation of engineered systems

Management of Notable Projects:

- FortisBC – Lower Bonnington, Unit 1
    - Control Protection and Governor System: provided SCADA, control, protection and governor systems. Automatic controls are PLC-based. A single PC based Human/Machine Interface system is provided for operator interface capabilities at each station. The generating unit is 20 MW
- Los Angeles County Department of Public Works - San Gabriel
    - HEP Control & protection systems upgrade
- FortisBC – Waneta, Unit 4
    - Protection control & metering
- US Army Corps of Engineers - Garrison Governor Retrofit – Units 1 - 5
    - Governor conversion which includes the turn-key supply of new Allen Bradley ControlLogix PLC-based governors to replace the existing Woodward and Pelton Mechanical cabinet actuator governors. Redundant speed sensing with creep detection, redundant position feedback, redundant power feedback, triple redundant pressure sensing, proportional valve conversion and installation are included. The turbines are Francis type. Functionality includes speed control, power control, synchronous condense, rough zone avoidance, pump echelon control and automatic pressure tank level control
- US Army Corps of Engineers - Sam Rayburn
    - Governor Retrofit
- American Electric Power - Smith Mountain, Unit 1

  - Governor conversion with remote I/O option
- American Electric Power - Marmet Hydro Station, Unit 3
  - Governor retrofit and head level controller
- BC Hydro - Wahleach
  - Design and Supply of PIV HPU system
- BC Hydro - Revelstoke U-5
  - Supply and delivery of UCC, GCC, HPU, PAM, PIO Cabinets
- BC Hydro - Mica Hydro Station, Units 5 & 6
  - Supply and delivery of turbine governor controls and large low pressure hydraulic pressure unit systems.
- BC Hydro - Ruskin Station, Units 1, 2 & 3
  - Supply and delivery of unit controls, turbine governor controls and high pressure hydraulic pressure unit systems.
- Grant Co PUD #2. - Wanapum Dam Digital Governor Controls units 1-10
  - Design and supply of PLC based unit/governor control systems. Hydraulic main distributing valve control retrofit.
- Manitoba Hydro - Limestone Generating Station Units 1-10
  - Design and supply of governor controls and main distributing valve retrofit systems.
- Pacific Gas & Electric - Spaulding 1 PRV Automation
  - Design and supply of PLC based control system for two large penstock pressure relief valves (PRV). Supply of upgrade to hydraulic main distributing valve to add hydraulic rate limiter.
- Brookfield Power - Powell River G1 Rehabilitation
  - Unit/Governor Control, High Pressure Hydraulic Unit, Gate Shaft servo conversion & Protection Systems
- South Carolina Electric and Gas – Fairfield Pumped Storage Station, Units 1-8
  - Unit Control, Plant Common Control, Redundant HMI, Protection and Governor Systems: provided redundant HMI/SCADA system, unit and balance of plant controls, generator protection and data collection and governor systems. Automatic controls are PLC-based. 20 electro-hydraulic control valve closed loop controls per unit. Protection consists of multiple digital protective relays. Satellite clock time synchronization of all control and protection equipment. Full turnkey installation. The generating units are 72 MW pump turbines.
- Northfield Mountain - First Light Energy, Units 1-4
  - Unit control, governor control, large hydraulic main distributing valve replacement & large hydraulic pump unloader replacement Systems. Full turnkey installation. The generating units are 130 MW pump turbines.

Continuing Education/Training:

L&S Electric, Inc.

- Electrical Safety Practices
- Quality Control Operations (QC & Improvement of OPS)
- Rigging Safety

Powermation

- Cimplicity

Schneider Automation

- Power Logic Equipment

American Red Cross Certification

- CPR/PRD

Metro Fire Department

- Fire Safety

Project Management Institute, PMP Training Course

South Carolina Contractors License

- Business Management & Law
- Electrical Contractor
    - Study of NEC – National Electric Code
    - Study of NFPA 72 – National Fire Alarm Code
    - Study of 29 CFR Part 1926 – Health and Safety Regulations for Construction

OSHA

- Occupational Safety, OSHA 10 Construction Safety & Health

South Feather Water and Power Agency
Sly Creek Powerhouse Governor Control System Replacement

Governor Projects Reference List

L & S Electric, Inc.
1810 Cty Rd XX
Rothschild, Wisconsin

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE04994	MAEGE90	06/12/23	Avista Corporation	R-44509 / WA 2	Long Lake Units 1-4 Governor Systems		Long Lake	Units 1-4	WA	USA	James Edwards	509-495-8841	East 1411 Mission Ave, Spokane, WA 99220	4	L&S has been selected to supply governor systems for Avista'sLong Lake facility located on the Spokane River. The project will upgrade the controls of all four governor systems. The scope of supply includes four Allen-Bradley governor cabinets, four 70 gallon HPU's, speed sensing assemblies, new servomotors, commissioning and training services.
QE06191	MAEGC60	05/26/23	Avista Corporation	R-44509 / WA 1	Nine Mile Unit 3-4 Governor Governor Systems		Nine Mile	3&4	WA	USA	Terri Echegoyen	509-495-2199	East 1411 Mission Ave, Spokane, WA 99220	2	L&S has been selected to supply governor systems for Avista's Nine Mile HED (Hydroelectric Development) located on the Spokane River. The project will upgrade the controls of two quad-runner Francis units originally installed in the early 1900's. The scope of supply includes two Allen-Bradley governor cabinets, two 35 gallon HPU's, speed sensing assemblies, new servomotors, commissioning and training services.
QE06412	MAEGA00	04/20/23	Northwestern Energy	722647	Hauser Unit #1 - Digital Governor Control Cabinet		Hauser	1	MT	USA	Joel Hiebert		11 E Park St, Butte, MT 59701	1	For this project, L&S supplied a new Allen-Bradley based digital governor controller. The governor equipment will be supplied in conjunction with a new turbine overhaul. The governor command signal will work with the governor hydraulics supplied by the turbine manufacturer.
QE06120	MAEFX10	05/08/23	Minnesota Power	5311206695	Thomson Falls Unit #6 Governor and Hydraulic Power Unit Upgrade		Thomson Falls	6	MN	USA	Mark Kayser	218-390-6430	MN Power 30 W Superior St Duluth, MN 55802	1	The project supplied a new digital governor with auto-synchronization and HPSS control. Also provided is a new 70 gallon L&S N-Series HPU with DO5 portional valve control manifold, shutdown solenoid, hot swappable dual filtration system, dual AC motor/pump combination with unloader option. Additionally, the project provided a new high pressure wicket gate cylinder with adapter plate and wicket gate position feed back, and new speed sensing.
QE06306	MAEFW80	04/04/23	Yuba County Water Agency	PO2204	Narrows 2 Governor Upgrade		Narrows 2	1	CA	USA	Aaron Esselman	530-740-7084	1220 F Street, Marysville, CA 95901	1	L&S has been selected to provide a digital governor conversion and distributing valve replacement of a 1960's Voith governor. An Allen-Bradley ControlLogix PLC platform governor featuring a 19" OIT, along with an L&S 7500 distributing valve will control the single Francis unit. Additional equipment supply includes redundant gate position sensing, accumulator level sensing and gate lock control.
QE06193	MAEFJ80	12/23/22	CBK Power Company Limited	4500012133	Upgrade of existing L&S Governor Control System - Unit 1		Kalayaan	1		Philippines	Alper Funtilon	AFuntilon@cbkpower.com	NPC-CBK Compound, Barangay San Juan, Kalayaan, Laguna 4015	1	Upgrading the unit 1 governor PLC from Quantum to M340
QE06296	MAEFH20	12/07/22	TransAlta Generation Partnership	47000097287	Pocaterra		Pocaterra	1	Alberta	Canada	Desmond Kotyk	403-673-4303		1	Digital governor upgrade and mechanical retofit of a Woodward gateshaft governor
QE06925	MAEFH00	12/07/22	TransAlta Generation Partnership	47000097286	Three Sisters		Three Sisters	1	Alberta	Canada	Desmond Kotyk	403-673-4303		1	Digital governor upgrade and mechanical retofit of a Woodward gateshaft governor
QE06291	MAEFG80	12/07/22	TransAlta Generation Partnership	47000097288	Ghost Unit 3		Ghost	3	Alberta	Canada	Desmond Kotyk	403-673-4303		1	Digital governor upgrade and mechanical retofit of a Woodward 505H analog govenro and 4" distributing valve
QE06067	MAEFB20	10/18/22	BC Hydro	4500070919	Replacement of Governor system at KCL Units 1-4		KCL	1, 2, 3, 4	BC	Canada	Jason Cheng		Podium C03, 6911 Southpoint Drive, Burnaby, BC V3N 4X8	4	
QE06103	MAEES90	11/29/22	MPT Hydro LP	Dryden 203-2022-03	MPT Hydro LP, Controls Upgrade	CCL Infrastructure	Wainwright	1	Ontario	Canada	Jason Wang	416-804-4196	1400 King St W, Toronto, ON M5X 1C8	1	Project supplied L&S standard designed products, consing of a MRT 2.1 Digital Governor Controller, an electro-hydraulic retrofit, a headpond level sensing system, an AES-110, 20 amp PWM exciter. The project also included L&S provided servcies such as installation engineering, installation supervision, commissioning and training on a T&M basis.
QE05565	MAEEK40	06/06/22	Columbia Power	22-009	21-125 ALH Digital Governor Exciter Controls Upgrade		Arrow Lakes	1,2	BC	Canada	Kenyon Campbell	250-304-6069	Suite 200, 445 - 13th Avenue, Castlegar, BC Canada V1N 1G1	2	Columbia Power awarded L&S the project to upgrade the governor and exciter front-end controls, as well as the hydraulic power unit controls, on Arrow Lakes Hydro Generating Station (ALH) Unit 1 and 2. The excitation front end upgrade consists of the redundant LS-AES controllers and new firing boards to control the GE EX2000 redundant bridge exciter.
QE04236-6	MAEEC20	04/06/22	Energy Keepers Inc	PO-22-1198	SKQ- Digital Governor Upgrades		SKQ	1, 2, 3	MT	USA	Gary Peterson	(406)-872-0229	43069 Kerr Dam Road, Polson MT 59860	3	
QE04815	MAEDU20	02/14/22	BC Hydro		Replacement of Governor system at Whatshan		Whatshan	1	BC	Canada	Erica Nelson	604-528-2534	Podium C03, 6911 Southpoint Drive, Burnaby, BC V3N 4X8	1	As part of the modernization plans, BC Hydro awarded L&S Eletric this contract for the replacement of the governor system for Whatshan with a complete new high-pressure system, including new servmotors, HPU with LS-400 distributing valve, accumulator bank, remote HMi and field instrumentation. Also part of the scope was Seismic design and qualification of the equipment, as well as study for the equipment load assement for powerhouse floors.
QE05961	MAEDJ00	10/29/21	Hidroelectrica Secacao, S.A.	10-29-2021 Agreement	Secacao, Candelaria and Choloma Hydroelectric Project Modernization		Secacao, Candelaria and Choloma	U1, U1,U1		Guatemala	Don Jarett	425-503-5315		2	
QE05740-4	MAEDI60	10/15/21	Irrigation Canal Power Co-Operative	TH-007	Raymond and Chin Chute Governor Upgrades		Raymond & Chin Chute	U1, U1	AB	Canada	Trevor Helowig	403-328-4401	525 40 Street South, Lethbridge AB T1J 4M1	2	IRRICAN Power issued a PO to L&S Electric to upgrade the governor and unit control cabinet that L&S provided for these two plants back in the 1990's. The project also included commissioning, spare parts and training.
QE05773	MAECS00	07/20/21	FortisBC	4599901438	Upper Bonnington U5 & U6 Governor PLC upgrade		Upper Bonnington	5,6	BC	Canada	Khizar Hayat	250-368-0434	3100 South Slocan Station Road, South Slocan, BC V0G 2G0	2	Fortis BC contracted L&S to upgrade the PLC hardware of units 5 & 6 governors, replacing the obsolete Quantum PLC hardware with the new M580 PLC - both from Schneider Electric. The scope also included updating the drawings, spare parts, and commissioning services .

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE05568	MAECP90	07/07/21	Newmont Corporation	PO: 3002385041 Work Oder: MA-01178-2021	Bridal Veil Governor Upgrade		Bridal Veil	1	CO	USA	David Swanson	970-708-2431	1239 E Hwy 145 Spur, Telluride, CO, 81435	1	Bridal Veil is historical hydroelectric plant built in 1907 as part of the Idarado mine. In 1990, the owner at that time contracted L&S to automated the one Pelton 1 needle unit. In 2010 Newmont Corporation acquired the plant. As part of a reclamation project from closing the mine, Newmont is committed to restore the hydro plant. For this purpose Newmont contracted L&S to replace the existing governor controller with a digital MRT2.1 governor, and replace the directional valve for the needle, the accumulator tank of HPU, and needle and deflector servomotor assemblies with MLDT devices. The project also included installation, commissioning and training.
QE05749	MAECP80	07/07/21	NorthWestern Energy	705385	Hauser Unit #5 - Digital Governor Control Cabinet		Hauser	5	MT	USA	Ryan Smithmyer	406-565-3812	11 E Park St, Butte, MT 59701	1	For this projetc, L&S supplied a new digital governor controller (same as the ones supplied for the other units in prior years).
QE05794	MAECN10	06/17/21	FortisBC	4599901394	South Slocan U1-U3 In-Line Dual Filtration & External Sump Trank Strainer Assemblies		South Slocan	Units 1-3	British Columbia	Canada	Zack Knowler	250-365-4686	FortisBC, 3100 South Slocan Station Rd., South Slocan, BC V0G 2G0	1	
QE05804	MAECI20	05/25/21	Grand River Dam Authority	43355	Pensacola Unit 2 gov PLC upgrade		Pensacola	2	OK	USA	Bill Beisley	918-256-0802	12495 E 387 Rd (below the dam), Langley, OK 74350	1	Due to obsolenscence, GRDA replaced the PLC and Electro-Hydraulic Interface (EHI). In addiition to Inegevity, the solution added performance and flexibility features.
QE05407	MAEBR20	02/02/21	TransAlta Generation Partnership	4700088458	Big Horn-Governor Replacment		Big Horn Dam	1,2	AB	Canada	Desmond Kotyk	403-673-4303	110-12th Avenue SW, Calgary, AB T2P 2M1, Canada	2	Turnkey supply of two digital governors, new standard hydraulic manifold and field devices including servo position feedback (MLDT) and speed sensing systems. Maintenance items such as PLC programming software and DEP software are also included.
QE05351	MAEBP30	01/25/21	Glemans Comercio S.A.	PGS-4657	Governor upgrade U1 and U2	Enel Green Power	Pangue	U1 and U2	Chile	Chile	Felipe Coeymans	56(2) 23361400	AV. Del Valle 570, of 503 Huechuraba - Santiago, Chile	2	
QE05634	MAEBO80	01/21/21	Oconto Electric Cooperative	2021012101	Stiles Hydro Plant Automation Upgrade		Stiles Hydro	1&2	Wisconsin	USA	Kent Lyng	920-373-4389	PO Box 168, Oconto Falls, WI 54154	2	Oconto Electric Co-Op, based on L & S Electric's PCS division's history of Honoring Commitments and Delivering Results, awarded PCS with the Stiles Hydro plant controls upgrade project. This project provided a replacement balance of plant automation control system, two (2) unit control automation systems that include Kaplan governor control functionality (wicket gate & Kaplan blade control), provided a Schweitzer Engineering Laboratories Real Time Automation Controller (RTAC), bridging the communication between the previously supplied generator protection relays and the new unit control automation systems, and provided two (2) new AES-110 full static, 200 amp excitation systems. Additionally, the project provided two (2) new high pressure hydraulic wicket gate cylinders to replace the existing electric actuators and supplied a new, dual pressure, common hydraulic power unit (HPU). The dual pressure, common HPU allowed the reuse of the two unit's existing low pressure Kaplan turbine blade hydraulic cylinders with the new high pressure wicket gate hydraulic cylinders while minimizing the required floor space in a small, limited floor space hydro plant. After a successful customer witness test, the equipment shipped from the PCS division early August 2021 and will be commissioned late September 2021.
MW65910-4	MAEBO70	01/25/21	FortisBC	4599901186	Waneta Generating Station Unit 3 ULE		Waneta Generating Station	3	BC	Canada	Wes Dann	250-231-0822	Suite 100, 1975 Springfield Road, Kelowna, BC V1Y 7V7	1	As part of the Upgrade and Repowering of the Turbinne and Generator, FortisBC awarded the contract to L&S to upgrade the Governor Control Cabinet, Electro-hydraulic retrofit of the main distributing valve, replacement of the redudnant governor oil pumps, servo position and speed sensing, instruments for HPU and Accumulator tank, Generator Protection systems, Installation documentation, commissioning and training.
QE05660	MAEBJ20	12/14/20	Eaton Corporation	4355-162756	Elephant Butte Governor Programming	Bureau of Recamation	Elephant Butte Dam	1-4	NM	USA	Jeff Rosenfeld	619-692-6217	PO Box 67, Saint Louis, MO 63166	1	Upgrade of Governor program from Quantum to M580. Also part of the scope was selection/definition of hardware which was procure by client.
QE05523	MAEBE60	10/07/20	Northwest Territories Power Corp.	MPC5209	Taltson - Governor and Station PLC Upgrades		Taltson Hydro Station	1	NT	Canada	Brian Dixon	(306) 290-4989	Northwest Territory Power Corporation 4 Cpaital Drive Hay River, Canada NT X0E 1G2	1	As part of the Unit Repowering project, NTPC contracted L&S to upgrade the governor controller and unit control. Installation Engineering, commissioning and training were also part of the scope
QE05458	MAEBB60	09/25/20	City of Thief River Falls	18043, 18044, 18045,17362	Hydro Plant Unit #2 Rehabilitation		Hydro Plant	2	MN	USA	Dale Narlock		1711 1st Street W., Thief River Falls, MN 56701	1	The project utilized the talents of L&S's Onsite Services division, L&S's Power Services division and L&S's Power Control Solutions division along with two subcontractors to provide a new unit turbine shaft, rehabilitate the turbine bearings, rewind the generator, provide new plant protective relaying, a new unit automation system, a new unit governor with new high pressure hydraulic power unit (HPU), a new unit exciter, and new unit protection all on a turnkey basis.
QE03886	MAEAY80	09/14/20	BC Hydro	4500004716	Jordan River Governor and PRV Upgrades		Jordan River Generating Station	1	BC	Canada	Danny Cheng	(604) 516-8996	6911 Southpoint Drive, Fl. A01, Burnaby, BC V3N 4X8	1	BC Hydro awarded L&S the contract to upgrade the governor system in this signle unit with pressure relief vavle (PRV). A significant challenge of this project was to ensure the modornization would have sufficient redundancy to ensure that the PRV is actuated ina synchronized fashion with the gates, otherwise the system should safely detect an out-of-sync ocndition and shutdown. This project involve the design and supply of a new governor controller, a saftey Loss-of-syncronization electronic detection, adaptation for a mechanical loss-of-syncrhoinization system (redundant to the electronic part), replacment of main distributing valves, retrofitng the PRV needle to allow testing of the system, commissioning and training.

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE05566	MAEAV80	08/13/20	NorthWestern Energy	191776	Hauser Unit #2-Digital Governor Control Cabinet		Hauser	2	MT	USA	Ryan Smithmyer	406-565-3812	11 E Park St, Butte, MT 59701	1	For this projetc, L&S supplied a new digital governor controller (same as the ones supplied for the other units in prior years).
QE05415	MAEAK60	04/24/20	Litostroj Power	520 220BC 007	Whitehorse Unit #2 Governor and HPU Upgrade	Yukon Energy	Whitehorse	2	Yukon	Canada	Vincent Lapointe	(450) 534-2929	45 Pacifique Est, Bromont, Quebec, Canada J2L 1J4	1	
QE05285	MAEAH80	03/09/20	TransAlta Generation Partnership	4700085357	Brazeau-Governor Replacment		Brazeau Dam	2	AB	Canada	Karina Dela Piedra	(403)-267-2033	TransAlta Corporation, Box 1900, Station "M" 110 – 12 Avenue SW, Calgary, AB CANADA T2P 2M1	1	Turnkey supply of one digital governors, new standard hydraulic manifold and field devices including servo position feedback (MLDT) and speed sensing systems. Maintenance items such as PLC programming software and DEP software are also included.
QE05434	MAEAD00	01/24/20	American Electric Power	80109213	Claytor Hydro Plant Unit #2 Digital Governor Upgrade	Appalachian Power Company	Claytor	2	VA	USA	Andrew Bell	(540)985-2332	PO Box 2021, Roanoke, VA 24022-2121	1	
QE05309	MAEAC70	01/22/20	Gretek	G-008.20	PCH Chumbao ELSE - (2) Governor and (2) HPU		Chumbao		Lima	Peru	Alfonso Galvani Mera	5113323271	Jr. Iquique 58 Brena, Lima 05, Peru	2	
QE04916	MW68310	11/22/19	Columbia Power	20-010	Expansion Controls Upgrade		Brilliant Expansion Generating Station	1	BC	Canada	Bill Clark	(250) 304-6069	Suite 200, 445 - 13th Avenue, Castlegar, BC Canada V1N 1G1	1	
QE05351	MW68290	12/01/19	Glemans Comercio S.A.	PGS-4657	Governor upgrade U1 and U2	Enel Green Power	Pangue	U1 and U2	Chile	Chile	Felipe Coeymans	56(2) 23361400	AV. Del Valle 570, of 503 Huechuraba - Santiago, Chile	2	
QE05300	MW67910	10/02/19	NorthWestern Energy	182320	Black Eagle Governor Upgrades		Black Eagle Dam	1,2,3	MT	USA	Ryan Smithmyer	406-565-3812	11 E Park St, Butte, MT 59701	3	
QE04605	MW67840	09/16/19	NorthWestern Energy	181847	Madison Governor Upgrades		Madison Hydro Facility	1,2,3,4	MT	USA	Ryan Smithmyer Brian Wilkins	406-565-3812 406-533-9272	11 E Park St, Butte, MT 59701	4	
QE04940	MW67120	07/17/19	Nyrstar Myra Falls	4501798248	Governor Upgrade		Tennent	1	BC	Canada	Hank Schmidt	250-287-9271 Ext. 3289	P.O. Box 8000, Campbell River, BC Canada V9W-5E2	1	
QE04624	MW66560	05/15/19	CBK Power Company Limited	4500009313	Two (2) SSG and Engineering Services		Kalayaan			Philippines	Alper Funtilon			1	
QE05090	MW66380	04/18/19	Grand River Dam Authority	42665	Pensacola Digital Governor PLC and EHI Upgrade		Pensacola	Customer changed to 3 & 5 from 1 & 3	OK	USA	Bill Beisley	918-256-0802	12495 E 387 Rd (below the dam), Langley, OK 74350	2	Due to obsolenscence, GRDA replaced the PLC and Electro-Hydraulic Interface (EHI). In addiition to lnegevity, the solution added performance and flexibility features.
QE04546-3 & MW65910-5	MW65910	02/25/19	FortisBC	4599900339 & 4599901186	Waneta Generating Station Unit 3 ULE Engineering Services (T&M)		Waneta Generating Station	3	BC	Canada	Wes Dann	250-231-0822	Suite 100, 1975 Springfield Road, Kelowna, BC V1Y 7V7	1	
QE04888	MW65650	02/05/19	NorthWestern Energy	PO175557	Digital Governor Upgrades		Thompson Falls	6	MT	USA	Ryan Smithmyer	406-497-2190	11 E Park St Butte, MT 59701	6	
QE04184	MW65550	01/15/19	Cloverland Electric Coop	19474	Excitation, Governor and Protection Relay Upgrades		Cloverland Electric Hydro Plant	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74	MI	USA	Roger Line	906-635-6800 ext 171	Cloverland Electric Coop, 535 E. Portage Ave, Sault Ste. Marie, MI, 49783	55	The project consists of the turnkey supply of seventy-four (74) new LS-AES-FS-EXC-DT-200 excitation systems with new excitation power transformers (EPT), seventy-four (74) new protective relay systems, seventy-four (74) new unit control cabinet replacement doors with operator interface device (OID) and pilot devices, fifty (55) governor retrofit upgrade kits providing manifolds with new proportional valves and shutdown solenoids, and four (4) new 125 Vdc battery systems. The equipment upgrades will allow Cloverland to improve their voltage control and frequency control that was not possible with the existing 30-year-old equipment.
QE04660	MW64740	11/21/18	Elsystec	OCEST19_18	Governor upgrade CH	Elecaustro	Saucay	1,2,3,4		Ecuador	Fernando Ortiz	593 2 2245241	Vasco de Contreras N35-251 y Mañosca	4	
QE05011	MW64730	11/21/18	AMT Hydro Services, LLC	182785	Governor Upgrade at Fries Plant	Enel North America Inc	Fries Hydro	4	VA	USA	Ross Purcell	423-498-2094	AMT Hydro Services, LLC 616 West Main Street Fries, VA 24330	1	Supply of an Allen-Bradley ControlLogix MRT and hydraulic interface
QE04823	MW64400	10/26/18	Lake Lynn Generation LLC	00582	Governor		Lake Lynn	1	PA	USA	Robert Flickner	724-725-6207	Lake Lynn Generation, LLC 600 Lake Lynn Road Lake Lynn, PA, 15451	1	The project supplied a site kickoff meeting, a unit automation system with governor functionality, a 70 gallon "N" series HPU with dual pumps, a hot swappable dual filtration system, an L&S-200 main distributing valve with an L&S-standard manifold, two (2) new hydraulic cylinders with one (1) cylinder having a servomotor position feedback transmitter and a zero position limit switch, and a speed sensing system (speed gear with 2 proximity probes).
QE04887	MW64240	10/17/18	NorthWestern Energy	172381	Ryan Hydro Plant Digital Governor Upgrades		Ryan	6	MT	USA	Ryan Smithmyer	406-497-2190	11 E Park St Butte, MT 59701	6	
QE04885	MW63440	08/08/18	BC Hydro	CO103959	Supply of Governor Control		Mica	U1-U4	BC	Canada	Erica Nelson	604 528 2534	6911 Southpoint Drive, A02 Burnaby, BC V3N 4X8	4	

Governor Projects Reference List

L & S Electric, Inc.
1810 Cty Rd XX
Rothschild, Wisconsin

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE04575	MW62400	05/25/18	Big Valley Electric	17-007-006R2	Holm Powerhouse Rehabilitation	City of San Francisco	Holm Powerhouse	1,2	CA	USA	James Coyle III	209-986-6390	19057 Gawne Rd., Stockton, CA 95215	2	The Hetch Hetchy system originates from Hetch Hetchy Reservoir in California's Yosemite National Park and provides water to San Francisco Bay area residents and businesses, as well as hydroelectric power for city services. This electricity is generated by three projects: Moccasin and Kirkwood, which use water from Hetch Hetchy Reservoir, and Holm, which uses outflow from nearby Cherry Lake. Big Valley Electric was awarded a large project from the City of San Francisco to rehabilitate and upgrade several areas of the Kirkwood and Holm Powerhouses. As part of this project, L&S Electric has received a purchase order from Big Valley Electric for the Digital Governor upgrades for Unit 1 and 2 at the Holm Powerhouse. Along with the governors, L&S Electric will be supplying some upgrades for the Oil Pressure System (KLF and immersion heaters) as well as Unit PLC programming. Services included with the award are Project Management/Administration, Engineering/Design, Installation Engineering, Assembly, Factory Testing, Packaging/Shipping, Installation supervision and Commissioning services.
QE04593	MW62230	05/02/18	FortisBC	4500214093	Generator Control Cabinet Upgrades		Brilliant	1 & 2	British Columbia	Canada	Linda Diduck	250-469-8075	120 OOTISCHENIA RD, CASTLEGAR BC V1N 4L7	2	
QE04613	MW61710	04/12/18	Grand River Dam Authority	42234	Pensacola Digital Governor PLC and EHI Upgrade		Pensacola	6	OK	USA	Bill Beisley	918-256-0802	12495 E 387 Rd (below the dam), Langley, OK 74350	1	
QE04289	MW61590	04/06/18	NorthWestern Energy	166649	Digital Governor Upgrade		Cochrane	1	MT	USA	Ryan Smithmyer	406-497-2190	11 E Park St Butte, MT 59701	1	
QE04739	MW61470	03/30/18	Xcel Energy, Inc.	71220	Cabin Creek Hydro Process Automation System (PAS) Upgrade		Cabin Creek	A, B	CO	USA	David Conradt	303-571-6216	1800 Larimer Street, Suite 400, Denver, CO 80202	2	
QE04761	MW61420	03/26/18	South Carolina Electric & Gas	FH-0100095087	Saluda Hydro Controls Upgrade		Saluda	1, 2, 3, 4, 5	SC	USA	Simone Neuhoff	(803) 217-6866	SCANA Bradham Blvd & Hwy 215 PO Box 57 Jenkinsville, SC 29065	5	The project will be the turnkey supply of a plant HMI system, a plant (common) control system, (5) unit / governor control systems, a unit protection cabinet (coordination & programming by others), a sump manual control panel, and miscellaneous field devices. The installation will be conducted in three (3) phases. The first phase will be the installation of unit 1 & unit 2, the second phase wil be the installation of the plant and unit 3 and unit 4, with the final installation phase will be unit 5. All three phases are to be completed in 20 months.
QE04509	MR19010	11/02/17	Avista Corporation	R-41710	Monroe Street Governor Software and Distributing Valve Upgrades		Monroe	1	WA	USA	Jeremy Winkle	509-495-2134	East 1411 Mission Ave, Spokane, WA 99220	1	
QE04598	MR18760	10/13/17	NorthWestern Energy	161885	PLC Control and Hydraulic Valve Upgrade		Holter	1,2,3,4	MT	USA	Ryan Smithmyer	406-497-2190	11 E Park St. Butte, MT 59701	4	
QE04507	MR18210	09/07/17	Avista Corporation	R-41566	Digital Governor Upgrades for Cabinet Gorge HED		Cabinet Gorge	Units 1-4	ID	USA	Jeremy Winkle	509-495-2134	East 1411 Mission Ave, Spokane, WA 99220	4	
QE04297	MR17580	06/19/17	UP Power Company (UPPCO)	4500002763	Hoist Hydro Protection & Controls Upgrade		Hoist	2, 3	MI	USA	Eugene Soumis	906-485-2455	Ishpeming Service Center 500 North Washington Street Ishpeming, MI 49849	2	The project provides the engineering services for the design and supply of (1) plant automation system, (2) FITS (Fully Integrated Turbine Control Systems - unit automation, protection, excitation and governors). Additional equipment provided under this project includes new speed sensors with mounting brackets (the existing speed disks will be reused), new high pressure hydraulic power units, new high pressure hydraulic cylinder with integral position feedback, a servo mounting adapter plate and one (1) nitrogen charging kit . The project will also provide the engineering for the MTC (Main Termination Cabinet), neutral grounding system, and two (2) weeks of installation supervision / commissioning assistance.
QE04460	MR17300	05/09/17	A&K Electric	AK-GL2 Upgrade / L&S 2017-001	Powell River Lois GL2 Balance of Plant		Powell River	G1	BC	Canada	Dennis Kornaga	604-483-3722	A&K Electric, Inc. PO Box 66 Powell River, BC Canada V8A 4Z5	1	
QE04020	MR17190	04/27/17	BC Hydro	C00098357	GENERATOR UPGRADE		Bridge River. Plant 2	5, 6	BC	Canada	Dennis Whitehead	604 528-1574	6911 Southpoint Drive, 7th Floor Burnaby, B.C. V3N 4X8	2	
QE04404	MR16560	03/14/17	American Electric Power	21502912892 & 215X2917204	Digital Governor Upgrade & Commissioning	palachian Power Comp	Claytor	3	VA	USA	Andrew Bell	540-985-2332	8355 Little River Road, Radford, VA 24141	1	
QE04092	MR16000	01/25/17	FortisBC	4500210905 & 4800000917	Upper Bonnington Base Job for Plant Upgrade		Upper Bonnington Power Plant	Units 1 - 4	BC	Canada	Russ Chore	250-368-0434	3100 South Slocan Station Road, South Slocan, BC V0G 2G0	4	
QE04425	MR15950	01/25/17	Glemans Comercio S.A.	PGS-11658	Pullinque Unit 1 and Pilmainquen Unit 4 governor upgrade	Enel Green Power	Pullinque & Pilmainquen	Unit 1 & Unit 4		Chile	Felipe Coeymans	56 (2) 2336 1400	Av. del Valle Sur 570, Of. 503, Ciudad Empresarial, Huechuraba, Santiago, Chile, CP 8580678	2	
QE04377	MR15470	12/14/16	Canyon Industries	9827-163080	HPU, Generator Control Panel & Spare Parts	ortland General Electri	Timothy Lake	1	OR	USA	Brett Bauer	360-592-5552	5500 Blue Heron Lane, PO Box 36, Deming, WA 98244	1	
QE04129	MR15260	11/22/16	American Hydro Corporation	44263	New HPU and Governor/Unit Control System	Lake Lynn Generation, LLC	Lake Lynn	2	PA	USA	John Sutyak	717 801 3511	135 Stonewood Road | PO Box 3628 | York, Pennsylvania 17402 | USA	1	
QE04339-2	MR14750	10/24/16	FortisBC	4500210360	(2) UCC/GCC Control Cabinets		Brilliant		BC	Canada	Russ Chore	250-368-0434	3100 South Slocan Station Road, South Slocan, BC V0G 2G0	1	

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE03960	MR13750	8/9/16	BC Hydro	00095177	GMS - Supply of Governors		GM Shrum	G6 to G10	BC	Canada	John Fitzgibbon	604-515-8511	GM SHRUM, 22154 CANYON DRIVE, HUDSON HOPE BC V0C 1V0	5	
QE04204-1	MR11130	02/23/16	TransAlta Generation Partnership	4700065698	Cascade Unit 1 Digital Governor Retrofit		Cascade	1	Alberta	Canada	Randy Michalko	403.267.2040	Box 1900, Station "M" ,110 – 12 Avenue SW, Calgary, AB CANADA T2P 2M1	1	
QE04138	MR10940	02/09/16	Nebraska Public Power District	4500189463	Kearney Hydro, Control System Upgrade		Kearney Hydro	1	NE	USA	Michael J. Stander	(402)-787-5308	Nebraska Public Power District 4500 West Pella Road Hallam, NE 68368	1	The supply of the MRT 2.1 Demo Governor with installtion engineering and onsite commissioning
QE04103	MM98790	09/21/15	US Army Corps of Engineers	W91278-15-C-0020	Supply and Install of Digital Governors at Jones Bluff Powerhouse in Selma, AL and Millers Ferry Powerhouse in Camden, AL		Jones Bluff Millers Ferry West Point Jim Woodruff	Jones Bluff 1,2,3,4 Millers Ferry 1,2,3 West Pt 1,2,3 Woodruff 1,2,3	AL AL GA FL	USA	Justin Wren/ Matt Dunn	251-694-4639/ 251-694-3697	Hydrology & Hydraulics Branch 109 St. Joseph Street Mobile, AL 36602	13	For this project L&S Electric will furnish all design, manufacture, delivery, installation and testing services of the complete hydroelectric digital governor systems and retrofitted hydroelectric mechanical interfaces for the digital governor control systems for the four (4) units at the Jones Bluff Powerhouse in Selma, Alabama, the three (3) units at the Millers Ferry Powerhouse in Camden, Alabama, the three (3) units at the West Point Powerhouse in West Point, Georgia and the three (3) units at the Jim Woodruff Powerhouse in Chattahoochee, Florida. Other services provided as part of this project include the inspection of the existing gate and blade main distributing valves, the replacement of Jones Bluff and West Point powerhouses pump unloader solenoid valves, the replacement of the Millers Ferry and Jones Bluff governor air compressors, and the providing governor PLC control of the oil level inside the Millers Ferry, Jones Bluff and West Point powerhouses accumulators.
QE04145	MM98690	09/10/15	Garland Power & Light Production (City of Garland)	23478	Governor control Turnkey Supply	City of Garland, Texas	GP&L Lewisville	1	TX	USA	Frank Hoelscher	972-485-6540	13835 County road 489 Nevada, Texas 75173	1	
QE03919	MM95470	02/23/15	A&K Electric	AK-G1 Upgrade / L&S 2015-001	Rehabilitation, Control, Protection & Governor System		Powell River	G1	BC	Canada	Dennis Kornaga	604-483-3722	A&K Electric, Inc. C11, RR#3 Phillips Road Powell River, BC Canada V8A 5C1	1	
QE03940	MM94960	01/22/15	Electro-Hidráulica	CD-91217	PCH Santa Ana, Electromechanical Equipment Rehabilitation		Santa Ana	1	Bogotá	Colombia	Oscar Gabriel García	57-1-3680055 Ext. 310	Ing. Oscar Gabriel García. Gerente General / General Manager Electro Hidráulica S.A. Av. Cra. 40 No. 24A-35 Bogotá, Colombia	1	
QE02485	MM94600	12/10/14	Grant County PUD	270-3713	Supplying Ten (10) Digital Hydraulic Governors for Priest Rapids Dam		Priest Rapids	1,2,3,4,5,6,7,8,9 ,10	WA	USA	Chris Akers	509 793-1478	14352 Highway 243 S., Beverly, WA 99321	10	
QE03727-1	MM94390	11/26/14	Hydro Québec	4510411833 4510969666 for SC #2	Centrale de Beauharnois -QT2BW- Remplacement des deux régulateurs de vitesse des groupes 15 et 17		Beauharnois	RV15 & RV17	Quebec	Canada	Franco Masciotra	514-840-3000 x4261	855, rue Ste-Catherine Est, Étage 14 Montréal, QC H2L4P5	2	
QE03849	MM94230	11/14/14	City of Tacoma	PG14-0330F	Hydro Governor Replacement Project		Cushman 1, Cushman 2, LaGrande, Wynoochee, Alder		WA	USA	David Wagner	253-779-7781	3628 s. 35th St., Tacoma WA 98409-3192	13	
QE03428	MM90970	04/23/14	Avista Corporation	R-39769	Little Falls HED Governor Procurement		Little Falls HED	U1 thru U4	WA	USA	Brian Vandenburg	(509) 495-2361	1411 East Mission Ave. Spokane, WA 99220-3727	4	
QE03587	MG89250	12/15/13	Manitoba Hydro	4500226580	Base Digital Governor, Kettle Generating Station		Kettle	1,2,&3	MB	Canada	Nicole Wowryk	(204) 360-7171	Manitoba Hydro 360 Portage Avenue Winnipeg, Manitoba, R3C 0G8 Canada	3	
QE03507	MG89210	12/23/13	GCZ Ingenieros SAC	18094	Governor System for Langui Hydrolectric Plant		Langui		Cusco	Peru	Miguel Paz	51.1.534.1468	Panamericana Sur Km 19.5, El Olivar N0. 1, Sub lote 03, Fundo Villa, Willa El Salvador, Peru	1	
QE03250	MG88250	09/19/13	Gretek	G-035.13	MRT1.0 and HPU for Shagua	Volcan	Shagua	1		Peru	Alfonso Galbani	511.332.3271	Jr. Iquique 058, Lima 05, Peru	1	
QE03547	MG88240	09/18/13	Canyon Industries	1648-133082	Governor Controller for Pelton Unit at Hacienda Juan Viñas		Hacienda Juan Viñas	1	Cartago	Costa Rica	Brett Bauer	360-592-5552	5500 Blue Heron Lane, PO Box 36, Deming, WA 98244	1	
QE03484	MG88160	09/10/13	FirstLight Power	NO-PO3154	Digital Governor Upgrade		Northfield Mountain	4	MA	USA	Brian Sousa	413.659.4412	99 Millers Falls Rd, Northfield, MA 01360	4	
QE03453	MG87510	07/30/13	Manitoba Hydro	4500287795	Governor Control Replacement, Limestone Generating Station		Limestone	1	MB	Canada	Jordan Sylvestre	(204) 360-3456	Manitoba Hydro 360 Portage Avenue Winnipeg, Manitoba, R3C 0G8 Canada	1	Engineering services for the design, test and supply of a digital governor, clamp on style speed disk with speed sensing proximity switches, hydraulic retrofit valves and Actuator caabinet equipment to upgrade the first of ten (10) Vevey governors at the Limestone Generating Station. Additional equipment to be supplied include a PLC test rack and spare parts. Additional services will include the supply of onsite installation supervision, hydraulic retrofit valve mechanical installation and governor commissioning on a Time & Materials basis.

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE03338	MG87490	07/01/13	New York Power Authority	4600002699	Q12-5294AT, Central Region Small Hydro Facilities Unit Controls Replacement		Ashocan, Crescent & Vischer Ferry	A1,A2,C1,C2,C3,C4,V1,V2,V3, V4	NY	USA	Andy Sumner	914-287-3026	New York Power Authority 123 Main Street White Plains, N.Y. 10601	8	Engineering services for the design, supply and test of three (3) HMI systems, ten (10) unit control systems, eight (8) governors, eight (8) hydraulic pressure units and two (2) governor hydraulic valve upgrades for the ten (10) units of the Aschocan, Crescent and Vischer Ferry hydro plants. The Ashocan Hydro plant equipment will be supplied on a turnkey basis with the Crescent and Vischer Ferry plant equipment being supplied on a limited installation or supervision services only basis as NYPA staff are available. The goal of this project is to replace the existing obsolete PLC equipment with more modern equipment and improve the remote control ability of the hydro plants.
QE3335	MG87310	06/07/13	Idaho Power Company	132792 & 146395	Units 1 & 2 Woodward Mod 2 Governor Conversions & Spare Parts		Cascade	1 & 2	ID	USA	Rene Jones	208-388-2449	10790 Franklin Rd Boise, ID 83709	2	
QE03333	MG85510	11/06/12	Productos del Aire de Guatemala	PAG 69993	Cambio de Reguladores de Velocidad de las unidades I y II en casa de máquinas Capulín.		Río Capulín	1,2		Guatemala	Fernando Castillo	(502) 59080416	41 Calle 6-27 Zona 8, Guatemala C.A.	2	
QE01513	MG85270	10/19/12	BC Hydro	EC12-442799	Supply of Governors & Unit Control Cabinets		Ruskin	1,2,3	BC	Canada	Steve Booth	604 528-3307	6911 Southpoint Drive, A01 Podium Burnaby, B.C., V3N 4X8	3	The Ruskin Hydro plant project consists of the supply of engineering services for the design, equipment supply and shipment to site of three (3) new unit control systems, three (3) new governor control systems and three (3) new hydraulic pressure units featuring double block and bleed valving. Additionally supplied equipment includes wicketgate position feedback devices, unit speed sensing assemblies and generator brake control assemblies. The onsite engineering services (KOM, drawing review meetings, installation supervision, commissioning - if requested) are to be provided on a T&M basis.
QE03255	MG85070	11/07/12	Elsystec	OCEST12_399	Governor Upgrades	npresa Eléctrica Quito S	Pasochoa	1,2	Pichincha	Ecuador	Fernando Ortiz	(+593)-2.224.5241	Vasco de Contreras N35-251 y Mañosca, Quito, Ecuador	2	
QE03342	MG84730	08/24/12	Hydro Tasmania (Entura)	74638 000	Governor Retrofit at PNG	OK Tedi Mine	OK Menga Power Station			Papua New Guinea	Ljupco Apostoloski	61362454183	GPO Box 355, Hobart Tas 7001, Australia	2	
QE03248	MG84630	08/16/12	Hydro Québec	4503343538	Digital-Hydraulic Governor Retrofits		Les Cedres	14 & 9	Quebec	Canada	David Baril Project Engineer	514-840-3000 ext.7826	Hydro-Quebec 855, rue Ste-Catherine Est Place Dupuis 15e Montréal, QC CA H2L 4P5	2	Full replacement of Woodward cabinet actuators. The replacements consists of a electro hydraulic control cabinet assembly comprised of Hydro Quebec quality digital governor, a L&S 7500 distributing valve with rate limiter. Brake valve assembly, pressure traducers' and indicators for air brake supply/applied pressure, scroll case pressure, and governor oil pressure. L&S 7500 distributing valve also includes Hydro Quebec standard control manifold assembly with external duplex filters. The control manifold assembly provides normal start/stop of unit and capability for future electrical and/or hydraulic shutdowns. Provides wicket gate position assembly called CAM 33. This position assembly is designed to include an MLDT position feedback, 8 position switches and 8 adjustable position switches. It also includes a hydraulic switch that works in conjunction with rate limiter and distributing valve.
QE03276	MG84600	08/17/12	Elsystec	OCEST12_297	Governor Systems	ElecAustro	Saymirín V	1,2	Azuay	Ecuador	Fernando Ortiz	593-2 2245241	Vasco de Contreras N35-251 y Mañosca, Quito, Ecuador	2	
QE02920	MG84470	08/08/12	Elsystec	OCEST12_272	Governor Upgrade	Empresa Eléctrica Quito SA	Guangopolo	6	Pichincha	Ecuador	Fernando Ortiz	593-2 2245241	Vasco de Contreras N35-251 y Mañosca, Quito, Ecuador	1	
QE03325	MG84170	07/03/12	American Electric Power	21502579208	Governor Retrofit		Winfield	1	WV	USA	Rob Galimore	540.985.2597	American Electric Power (AEP) PO Box 2021 Hydro Generation - 3rd Floor Roanoke, VA 24022-2121	1	
QE03160	MG83670	04/26/12	Kodiak Electric Association	Letter	Unit 3 Upgrade		Terror Lake	3	AK	USA	Lloyd Shanley	907-486-7763	515 East Marine Way, Kodiak, AK 99615	1	Engineering services for the design, supply and shipment to site of an unit control system, an unit protection system, a governor control system including new HPSS and onsite services on a T&M basis for the installation supervision and the commissioning of a new unit at the Terror Lake Hydro plant. The commissioning services will provide the integration of the first two units L&S previously supplied with the new third unit.
QE03114	MG83590	04/18/12	South Carolina Electric & Gas	FH 0100057909	Fairfield Pumped Storage Controls Upgrade		Fairfield Pump Storage	6	SC	USA	Alan Smoak	803.217.4133	SCE&G Technical Services, 220 Operation Way MC A-221	6	
QE03289	MG83350	03/12/12	GCZ Ingenieros SAC	2095	MRT1.0 Governors for Rehabilitation of Santa Cruz II		Santa Cruz II	1,2	Ancash	Peru	Miguel Paz	51.15341468	RUC Nro. 20135072797, Los Radajes Nro. 101, Urb. Industrial La Milla, San Martin de Porres	2	
QE02660	MG82650	12/23/11	Hydro Québec	4503200936	Digital-Hydraulic Governor Retrofits		Beauharnois	Central 2,23,27,28,31,32,34,36	Quebec	Canada	Pierre Belair	514-840-3000 x5116	80 boul, Edgar-Hebert CP 36 Melocheville QC Canada J6N 3C1	7	
QE02627	MG82360	11/22/11	BC Hydro	PO # CO66377 Contract # EC11-437535	Supply and Delivery of Turbine Governor Systems		Mica	5,6	BC	Canada	Sharif Fahmy	604.529.5638	6911 Southpoint Drive, 7th Floor Burnaby, B.C. V3N 4X8	2	Engineering services for the design, supply and shipment to site of two governor control systems including two new HPSS and onsite services on a T&M basis for the installation supervision and the commissioning of the two new units at the Mica Creek Generation Station.
QE03064	MG82130	10/24/11	Elsystec	OCEST11_244	Governor Upgrade		Ambi	1,2	Imbabura	Ecuador	Fernando Ortiz	593.2.224.56510	Vasco de Contreras N35-251 y Mañosca, Quito, Ecuador	2	
QE02734	MG82110	10/20/11	Gretek	G-074.11	MRT, HPU, Servomotor, MLDT for three units	Volcan	Proyect Huanchay and Banos II	3		Peru	Alfonso Galbani	011 511 332 3271	Jr. Iquique 058 Brena, Lima 05 Peru	3	

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE03116	MG81540	08/19/11	Elsystec	OCEST11_168	Digital Governor Control System	EPMAPS	Recuperadora	1	Papallacta	Ecuador	Fernando Ortiz	(+593)-2.224.5241	Vasco de Contreras N35-251 y Mañosca, Quito, Ecuador	1	
QE02845	MG81380	08/04/11	Electric Power Systems, Inc	3147	Governor and HPU Upgrade	er Valley Electric Assoc	Solomon Gulch	1	AK	USA	Bill Brimstein	208.788.6086	3305 Arctic BLVD, Suite 201, Anchorage, AK	1	
QE02756	MG80980	06/17/11	Gretek	G-038.11	(1) L&S MRT and 15gal HPU	Hidrandina	Cantage	3		Peru	Alfonso Galbani	511.332.3271	Jr. Iquique 058, Lima 05, Peru	1	
QE03158	MG80750	05/18/11	TransAlta Generation Partnership	1001 4500339669	Cascade Unit 2 Digital Governor Retrofit		Cascade	2	AB	Canada	Nick Horton	403.801.5717	TransAlta Corporation, Box 1900, Station “M” 110 – 12 Avenue SW, Calgary, AB CANADA T2P 2M1	1	
QE03035	MG80160	03/21/11	FirstEnergy Corporation	45365304	Yards Creek Governor Controls Replacement		Yards Creek	1,2,3	NJ	USA	Gary Schindler	330.761.4444	76 South Main Street, Akron , Ohio 44308-1890, Mail Stop:GO-9	3	
QE02564	MA79860	02/16/11	Gretek	G-007.11	(3) L&S MRT Governor Retrofit Systems	ecto Especial Chavimo	Viru	1,2,3	Trujillo	Peru	Alfonso Galbani	511.332.3271	Av. Repulbica de Chile 271 Of. 301, Lima, Peru	3	
QE03102	MA79820	02/11/11	American Electric Power	215397742	Governor retrofit and Head Level controller		Winfield	2	WV	USA	Rob Galimore	540.985.2597	American Electric Power (AEP) PO Box 2021 Hydro Generation - 3rd Floor Roanoke, VA 24022-2121	1	
QE03068	MA79710	01/31/11	Grant County PUD	370-3084	Wanapum Dam Digital Governor Controls		Wanapum Dam	1,2,3,4,5,6,7,8,9,10	WA	USA	Chris Akers	509 793-1478	15655 Wanapum Village Lane SW, Beverly, WA 99321	10	Design and supply of (10) Allen Bradley ControlLogix PLC-based governors to convert (10) Pelton Kaplan Cabinet Actuator governors. Site supervision, commissioning and training are also included.
QE02774	MA79270	11/01/10	NAES Corporation	2010001	Neversink Hydroelectric Facility, Plant Electrical Equipment Upgrade Project	NYCDEP	Neversink Hydroelectric Facility	1	NY	USA	Chuck Bragg	845.985.2763	Grahamsville Hydro Station 1229 State Route 55A Grahamsville, NY 12740	1	Phase 1 will consist of the design/supply of a new digital governor system with auto air admission control for use with the existing low pressure hydraulic system, a new unit/plant control system, redundant unit protection system, replacement medium voltage switchgear, engineering for a new backup emergency generator. Phase 2 will consist of the supply of the emergency backup generators and the installation of the equipment.
QE02975	MA78590	08/19/10	Salt River Project	SRP-0000325269	Control Retrofit & Supply of Digital Governor		Stewart Mountain	1	AZ	USA	John Blevins	602-236-5680		1	The project will consist of the turnkey supply of a new PLC-based plant/unit control system and a new digital governor. The plant/unit control system will utilize Rockwell Software's Factory Talk HMI software and Allen-Bradley ControlLogix PLC hardware. The digital governor will be the Allen-Bradley MRT 2.0 with a standard manifold and kits for speed sensing (PMG speed disk will be retained and reused), wicket gate position sensing, and main spool position sensing. All necessary field brackets are supplied by L&S Electric as part of the turnkey supply. One week of onsite training is also included in the project scope of supply.
QE02870	MA78350	07/22/10	ABB Canada	4500406983	YEC Mayo B Governor & HPU's	Yukon Energy	Mayo B	1,2	YT	Canada	Kevin deRee	905.333.7481	3450 Harvester Rd., Burlington, ON Canada L7N 3W5	2	
QE02916	MA78310	07/19/10	GCZ Ingenieros SAC	336	Digital Governor Upgrade, MRT 1.0, HPU, Servomotor, Ethernet Switches, Redundant Speed Channels, Spare Parts, MRT Pre-Congifuration, Two Days of On Site Commissioning		Huasahuasi 1 and Huasahuasi 2	4	Junin	Peru	Miguel Paz	51.1.534.1468	Los Rodajes No. 101, URB. Industrial La Milla, San Martin de Porres, Lima Peru	4	
QE02980	MA78300	07/19/10	GCZ Ingenieros SAC	337	Digital Governor Upgrade, MRT 1.0, HPU, Servomotor, DC-DC converter, Nitrogen Charging Kit, Speed Pickups		Purmacana	1	Lima	Peru	Miguel Paz	51.1.534.1468	Los Rodajes No. 101, URB. Industrial La Milla, San Martin de Porres, Lima Peru	1	
QE02726	MA78030	06/04/10	Yukon Energy Corporation	9221	Aishihik Hydro Plant Unit 3 Digital Governor Upgrade		Aishihik	3	YT	Canada	Andrew Hann			1	
QE02351	MA77950	06/02/10	Manitoba Hydro	4500226580	Kettle Hydro Station U1 to U4, Governor retrofit Woodward DCS-501		Kettle	4	MB	Canada			Manitoba Hydro 360 Portage Avenue Winnipeg, Manitoba, R3C 0G8 Canada	1	The turnkey supply of an MRT 2.0, L&S standard manifold, main spool position sensing (LVDT), speed sensing proximity switches (installed in existing PMG) and a new MLDT for wicket gate position sensing. Additional scope of supply includes an additional analog input module, additional analog output module and the control column removal.
QE02444	MA77750	04/27/10	Metlakatla Power & Light	3596	Turnkey Supply of Unit/Gov Upgrades for Chester Lake and Purple Lake Hydro Plants (4 Units)		Chester Lake, Purple Lake	4	AK	USA	Earl George	907-789-2474 ext 3		4	The project will consist of upgrades at the Chester Lake Hydro Plant (1 Pelton unit) and the Purple Lake Hydro Plant (3 Francis Units). The controls upgrades will consist of supplying new Governor/Unit controls which will be combined into one PLC utilizing the GE RX3i platform. Professional services will consist of Project management, engineering, design, complete integration engineering with hand markup of customer's drawings, one day of training at each plant, L&S Electric standard documentation. Feedback transducers and speed pickups will be supplied for each unit as well. Turnkey installation and commissioning services will be supplied. Options that were taken also include an oil pressure system inspection, recommended spare parts, and C37.90 compliance hardware design including compliance testing.
QE02936	MA77740	04/22/10	TransAlta Generation Partnership	4500324793	Kananaskis U-3 Governor Replacement		Kannanaskis	3	AB	Canada	Nick Horton	403.267.7138	TransAlta Corporation, Box 1900, Station “M” 110 – 12 Avenue SW, Calgary, AB CANADA T2P 2M1	1	

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE02721	MA77690	04/14/10	Elsystec	OCEST10_104	Governor Retrofit	EEQSA	Cumbayá	2	Pichincha	Ecuador	Fernando Ortiz	(+593)-2.224.5241	Vasco de Contreras N35-251 y Mañosca, Quito, Ecuador	1	The project will consist of supply of a governor retrofit with a replacement hydraulic pump & motor, a L&S-400 main distributing valve w/ a DO3 standard manifold, a mechanical overspeed switch and an accumulator tank with an upclosing float valve for unit 2.
QE02801	MA77650	04/09/10	United Kiser Services LLC.	pending	Equipment Rehabilitaion Project	Brookfield Renewable Power	Glen Ferris	1,2,3,4,5,6,7,8	WV	USA	Dan Olson Sr.	906-563-5265	United Kiser Services LLC. 1001 Stephenson Street Norway, MI 49870	2	The Glen Ferris hydro on the Kanawha River, has six 550 kVA generators and two 1,875 kVA generators which have been in operation for nearly 100 years, with a total generating capacity of 5.45 mW. With the plant having been moth balled in 2002 due to many of the units being inoperable, Brookfield Renewable Power (BRP) bought the facility with the idea of a complete rehabilitation. The rehabilitation project will utilize a Civil contractor, an Electrical contractor and an Equipment Upgrade contractor. The civil contractor will be rehabilitating the powerhouse buildings including the powerhouse fire alarm system, intrusion detection system, powerhouse windows, powerhouse doors, power house cranes, the access road and the generator intake structures. The Electrical contractor will be providing the turnkey supply of the new high voltage switchgear, medium voltage switchgear, motor control centers, power distribution centers, new transmission line and transmission line electrical protection. The Equipment Upgrade contractor, United Kiser Services, will provide for the turnkey supply of new turbines, rebuilt (rewound) generators and an automation system designed for remote operation of the plant. L&S Electric's Engineering Division and Repair Division have been selected to participate in the Glen Ferris Rehabilitation project as sub-contractor's to United Kiser Services. The Repair division will be checking the generator stator and rotor assemblies for damage and then rewinding the generators. The Engineering division's contribution, the turnkey supply of the automation system, will consist of providing a Telegyr 5700 RTU as the plant SCADA system, a Modicon M340 PLC-based system for the plant control system, a Modicon M340 PLC-based system for each unit control, new SEL-300 relays for the unit protection and new Basler DECS 400 static exciters. Also included in the Engineering's scope of supply are two new digital governors for units 7 & 8 and a shared new high pressure power unit. To ensure a smooth installation and startup, the Engineering Division will coordinate efforts with United Kiser Services and with the
QE02604	MA77500	03/24/10	FortisBC	4500188823	Motor, Pump, and Unloader Upgrade		Waneta Generating Station	3	BC	Canada	Peter Makaroff	250.368.0605	10200 Hwy. 22A Waneta Dam, Trail, BC Canada V1R 2Y8	1	
QE02914	MA77110	03/08/10	FortisBC	LPG10003	Corra Linn U-1 & U-2 & U-3 - Control, Protections & Governor System Upgrades		Corra Linn	1,2,3	BC	Canada	Steve Hope	250.359.0757	FortisBc, 3100 South Slocan Station Rd., South Slocan, BC V0G 2G0	2	Supply of unit controls, governor retrofit, and unit protection
QE02892	MA76960	02/22/10	PPL Montana, LLC	482574-C	PPL Montana, Hauser Plant Governor and HPU Upgrades for Units 1, 3, 4		Hauser Hydro Station	1, 3, 4	MT	USA	Blaine Hildreth	406.533.3427	PPL Montana, LLC., 45 Basin Creek Road, Butte, MT 59701-9704	3	
QE02751	MA76850	02/04/10	Delta Delfini (Ecuador)	PTD-2010_05	Governor System for Hydro Plant Hidromira		Mira	1	Guayuquil	Ecuador	Fatima Jordan	593.4.268.8000	Av. Miguel H. Alcivar, Edif. Torres del Norte A, Piso 7, Guayaquil, Ecuador	1	
QE02876	MA76650	12/29/09	TransAlta Generation Partnership	1001 4500319940	Bearspaw Governor Replacement		Bearspaw	1	AB	Canada	Cedna Todorovic	403.267.7321	TransAlta Corporation Box 1900, Station "M" 110 – 12 Avenue SW Calgary, AB CANADA T2P 2M1	1	Supply of a digital governor, new gate manifold, new blade control hydraulic manifold, and speed sensing system.
QE02706	MA76490	11/30/09	Gretek	G-065.09	L&S-MRT Governor and HPU	Desarrolo Chavimochic	Desarenador	1		Peru	Alfonso Galbani	511.332.3271	Av. Repulbica de Chile 271 Of. 301, Lima, Peru	1	
QE02811	MA76410	12/17/09	Placer County Water Agency	70710	Ralston & Middle Fork Governor Upgrades		Ralston & Middle Fork	MF1, MF2, R1	CA	USA	Ross Hooper	530.823.4951	Placer County Water Agency PO Box 6570, 144 Ferguson Road Auburn, CA 95604	3	The engineering, design, testing and supply of three redundant processor, Allen-Bradley ControlLogix based 6-needle impulse turbine governor retorfits with new main distributing valves. Additional supply includes onsite installation supervision and commissioning. Installation labor is by the owner.
QE02453	MA76330	11/09/09	Hydro Québec	4502637412	Modernization of Speed and Systems of the Central Manic 1		Manic 1		Ontario	Canada	Pierre Blair	514-840-3000	855, rue Ste-Catherine Est 14e etage Monteal (Quebec) H2L 4P5	1	
QE02263	MA76050	09/18/09	Puget Sound Energy	6400002440	Snoqualmie Falls Redevelopment Project		Snoqualmie Falls Plant 1 and Plant 2	Plant 1 - Units 1-5, Plant 2 - Units 6,7	WA	USA	Dave Jenness	425.462.3932	355 110 Ave NE, Bellevue, WA 98004, dave.jenness@pse.com	7	

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE02682	MA76000	09/11/09	SaskPower	45000230349 & 45000230461	Plant Control & Monitoring System Supply		EB Campbell Island Falls	EBC 1-8, IF 1-7, IF HA, IF HB	SK	Canada	Michael Dedman	306-566-3209	SaskPower Power Production 9C, 2025 Victoria Avenue Regina, Saskatchewan S4P 0S1	17	Project provided the engineering and design services as required for the supply of nineteen unit control systems with unit protection, nineteen governor control systems with new hydraulic pressure units and auto synchronizing, two plant control systems and two plant wide human-machine interface systems for the EB Campbell and Island Falls plants. Each plant's HMI systems featured redundant servers, four operator workstations, and an engineers work station. Each workstation featured multiple monitors to reduce PC hardware while maintaining view ability. A redundant self-healing ring Ethernet communication network was provided for communication between the plant control system, unit control systems and the HMI system at each plant. Each plant controller featured redundant PLC processors and power supplies. The unit controllers and governor controllers were provided in a simplex configuration. Operational and technical training is also included. Onsite commissioning assistance is provided on a Time and Materials basis.
QE02514	MA75900	08/24/09	SERPRO SA de CV	A929001	Modernization Project for TORO II in Costa Rica	ICE	Toro II	1,2	Alajuela	Costa Rica	Adolfo Alpízar López	6) 2520-8970aalpizarl@ice.go.c	Centro de Producción TORO II, Alejuela, Costa Rica	2	
QE02623	MA75760	08/04/09	City of Spokane	OPR2009-0624	Upriver Power House #2 Governor, Exciter, Hydraulic Upgrades		Upriver Power House #2	1,2	WA	USA	Mark Cleveland	509.742.8154	914 E. North Foothills Drive, Spokane, WA 99207-2794	2	Governor: MRT based, Allan Bradley, Control Logics, Kaplan Digital Governor Control Upgrade w/ 10.4 " Magelis operator interface, w/ 5 port Ethernet switch and redundant DC/DC power supplies utilizing telefast I/O, w/ power transducer kit, supplied in a 90"x30"x30" enclosure w/ cooling fan, 120VAC receptacle and light. Hydraulic: Replacement of Fuji Gate and Blade Main Distributing Valves with L&S Electric LS7500 Distributing Valves, Including valve adaption hardware. Excitation: Replacement of existing excitation equipment with Full static Excitation System, utilizing Basler DECS400N Digital Control, DECS-400 Field Isolation Transducer, IFM-150, SSE-N Rectifier Bridge, BE1-64 ground detect relay, Field build circuit in a 72"x90"x36" encl.
QE02749	MA75650	07/16/09	GCZ Ingenieros SAC	0513	Santa Cruz Plant Governor Upgrade		Santa Cruz	1 & 2	Ancash	Peru	Miguel Paz	51.15341468	RUC Nro. 20135072797, Los Radajes Nro. 101, Urb. Industrial La Milla, San Martin de Porres	2	
QE02533	MA75620	07/14/09	Hydro Québec	pending	Beauharnois (2) Digital-Hydraulic Governors + 15000 valve		Beauharnois	19 & 33	Quebec	Canada	Nghia Nguyen-Trong	514.840.3000 x4314	Hydro-Quebec, Place Dupuis, 15 Etage, 855 Rue Ste-Catherine Est, Montreal, QC H2L 4P5	2	Full replacement of Woodward cabinet actuators. The replacements consists of a electro hydraulic control cabinet assembly comprised of Hydro Quebec quality digital governors, L&S 15000 distributing valve with rate limiter. Brake valve assembly, pressure traducers' and indicators for air brake supply/applied pressure, scroll case pressure, and governor oil pressure. L&S 15000 distributing valve also includes Hydro Quebec standard control manifold assembly with external duplex filters. The control manifold assembly provides normal start/stop of unit and capability for future electrical and/or hydraulic shutdowns. Provides wicket gate position assembly called CAM 33. This position assembly is designed to include and MLDT position feedback, 8 position switches and 8 adjustable position switches. It also includes a hydraulic switch that works in conjunction with rate limiter and distributing valve.
QE02695	MA75490	06/24/09	Brookfield Renewable Power	35-10599	Rumford Falls Unit 3 Governor Upgrade		Rumford Falls	3	ME	USA	Mike Popp	603-531-9897	Rumford Falls Hydro LLC, 299 Prospect St. Rumford, ME 04276	1	
QE02469-5	MA75430	06/11/09	Snohomish County PUD	46039 Amend. 2	Amendment 2 Units 3 & 4 Upgrades, PRV Control		Jackson Hydroelectric Plant	3 & 4	WA	USA	Bob Maxwell	425-783-8808	Snohomish County PUD No. 1, Everett, WA 98203-6264	2	Supply of governor equipment for two Francis Turbines, governor and PRV control. In addition, modifications of the Main Plant Controller program to accommodate the new Digital Governors. This is a continuation of two previous projects with Snohomish County. Installation of all equipment will be done by Snohomish County personnel, with supervision support from L&S.
QE02705	MA75380	06/03/09	NAES Corporation	2009001	East Delaware Hydroelectric Facility, Plant Electrical Equipment Upgrade Project	NYCDEP	East Delaware Hydroelectric Facility	1	NY	USA	Chuck Bragg	845.985.2763	Grahamsville Hydro Station 1229 State Route 55A Grahamsville, NY 12740	1	A turnkey supply of a new digital governor system for use with the existing low pressure hydraulic system:a new unit control, plant protection, static excitation system, replacement of low voltage motor control center, and medium voltage power circuit breakers.
QE02688	MA75190	04/28/09	Southeast Alaska Power Agency	SEAPA-09-STI-10	Swan Lake Governor Upgrade		Swan Lake	1,2	AK	USA	Eric Wolfe	907.258.2281	1301 Huffman Rd, Suite 201, Anchorage, AK 99511-0987	2	A turnkey supply of a new digital governor system for use with the existing low pressure hydraulic system.
QE02438	MA75110	04/15/09	PPL Montana, LLC	454700-C	Thompson Falls Unit 7 Governor Upgrade		Thompson Falls	7	MT	USA	Gary Peterson	406.533.3425	1611 Maiden Lane, Thompson Falls, MT 59873	1	
QE02668	MA74940	03/20/09	TransAlta Generation Partnership	1001 4500308182	Brazeau G-1 Governor Upgrade		Brazeau	1	AB	Canada	Cedna Todorovic	403.267.7321	TransAlta Corporation Box 1900, Station "M" 110 – 12 Avenue SW Calgary, AB CANADA T2P 2M1	1	Turnkey supply of a digital governor head, new main distributing valve with proportional valve controlled standard hydraulic manifold and field devices including servo position feedback (MLDT) and speed sensing systems. Maintenance items such as PLC programming software and DEP software are also included.
QE02230	MA74870	02/19/09	American Electric Power	215192126	Governor retrofit and Head Level controller		Marmet	3	WV	USA	Gary Rider	304.348.5765	200 86th Street, Marmet, WV 25315	1	
QE02583	MA74830	02/16/09	Yukon Energy Corporation	9022 (Unit 3) & 9023 (Unit 4)	Digital Governor Upgrades		Whitehorse	3, 4	YT	Canada	Craig Church	867.393.5346	Yukon Energy Corporation 2, Miles Canyon Road, Box 5920 Whitehorse, Yukon Y1A 6S7	2	Supply of two GE PAC-based MRTs with auto-synchronizing and relay interface panel.

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE02406	MA74480	01/06/09	CBK Power Company Limited	KAL-6324	Governor Systems for Kalayaan I, Units 1 & 2		Kalayaan I	1, 2	Laguna	Philippines	Kensuke Saito	63 49 557-1008	CBK Power Company Ltd., NPC-CBK Complex, San Juan Kalayaan, Laguna 4015, Philippines	2	Supply of two complete governor systems including Governor Control Cabinet and PLC-controlled HPU system for units 1 and 2 pump storage units (180 MW each). The new governor systems are to be same as those provided in 2003 by L&S Electric for unis 3 &4 at the same power generation complex.
QE02549	MA74220	11/03/08	Hydro Québec	4502349614	Les Cedres Digital-Hydraulic Governor Retrofit		Les Cedres	7	Quebec	Canada	Pierre Bélanger	514.840.3000 x5375	Hydro-Quebec, Place Dupuis, 15 Etage, 855 Rue Ste-Catherine Est, Montreal, QC H2L 4P5	1	
QE01833	MA74200	11/03/08	Hydro Québec	4502349108	Beauharnois Digital-Hydraulic Governor Retrofits		Beauharnois	20, 22, 26, 28	Quebec	Canada	Pierre Bélanger	514.840.3000 x5375	Hydro-Quebec, Place Dupuis, 15 Etage, 855 Rue Ste-Catherine Est, Montreal, QC H2L 4P5	4	
QE02493	MA74060	10/15/08	PM Control Systems Pte. Ltd.	86001063	NAM NGUM Governor Retrofit (Laos)	Electricite Du Laos	Nam Ngum	5	Vientiane	Laos	Teo Hwee Kiang	65-6779-2822	PM Control Systems Pte. Ltd. 8 Joo Koon Crescent Singapore 629011	1	Supply of an MRT1.0 modifief to offer 32 digital outputs (instead of regular 16), SGS speed sensing, L&S-7500 valve with standard manifold and base with adapting pipes, and associated engineering services including onsite installation supervision and commissioning. This plants has 5 units, two of which were already retrofited. We expect to retrofit the next two in coming years.
QE02456	MA74050	10/15/08	Hydro Québec	4502336053	Paugan (8) GCC Woodward-A Retrofit		Paugan	8 units	Quebec	Canada	Pierre Belanger	514.840.3000 x5375	Hydro-Quebec, Place Dupuis, 15 Etage, 855 Rue Ste-Catherine Est, Montreal, QC H2L 4P5	8	
QE02450	MA73790	09/05/08	City of Spokane	OPR2008-0707	Upriver Power House #1 Governor Upgrade		Upriver Power House #1	1, 2, 3	WA	USA	Karen Terpak	509.625.7822	914 E. North Foothills Drive, Spokane, WA 99207-2794	3	
QE02529	MA73780	09/05/08	Xcel Energy, Inc.	M341311	Ladysmith Hydro Plant, Generator #3 Governor Replacement		Ladysmith Hydro Plant	3	WI	USA	Dean Hagstrom	715-839-1484	1400 Western Avenue, P.O. Box 8, Eau Claire, WI 54702	1	Turnkey supply of a new digital governor system and low pressure hydraulic power unit. The HPU was designed to work with the existing kaplan blade hydraulic servo motor. A new hydraulic servo was supplied and installed for the control of the wicket gate.
QE02496	MA73500	07/29/08	American Electric Power	215141926	Governor Conversion		Smith Mountain	5	VA	USA	Robert Gallimore	540-985-2597	PO Box 2021, Hydro Generation - 3rd Floor, Roanoke, VA 24022-2121	1	
QE02443	MA73480	07/28/08	IPC LTDA	1928	Two (2) Governor Systems, Pump Control Cabinets, On-site Services	Emgesa	Guaca, Paraiso	3,3		Colombia	Carlos Salazar	57.1.310.3688	Calle 53#27-33, Off:6, Orbicentro-2, Bogota, Colombia PC A.A.361086	2	Governor Retrofit for one 92MW Pelton turbine at Paraíso plant and for one 108MW Pelton unit at Guaca plants. The governor design is fully redundant with two hot-standby PLC array, redundant I/O, redundant communication channels, and an independent speed monitoring system. Project includes automating the pumping systems, and the mechanical and hydraulic interfaces for controlling the deflector and independent control of the needles. Equipment is also resistant to high H2S corrosive environment.
QE02437	MA73450	07/22/08	PPL Montana, LLC	429721	Morony Plant Governor Controls		Morony Dam	2	MT	USA	Rick Maynard	406.268.2325	1611 Maiden Lane, Thompson Falls, MT 59873	2	
QE02459	MA73330	06/27/08	Yuba County Water Agency	51163	Governor Upgrade		Colgate	1, 2	CA	USA	Steven Onken	530-692-3400	Yuba County Water Agency 12700 Lake Francis PO Box 176 Dobbins, CA 95935	2	Supply Governor and Excitation Upgrade Equipment along with Engineering Services to integrate the new equipment into the existing Unit Controls. The plant consists of two six-needle Pelton Turbines rated at 175 MW each, The turbines at Colgate are physically the largest Pelton Turbines in North America.
QE02282	MA72800	04/09/08	Snohomish County PUD	5633	Jackson Hydroelectric Plant, Governor Control System (RFQ #5599)		Jackson Hydroelectric Plant	1,2	WA	USA	Bob Maxwell	425-783-8808	Snohomish County PUD No. 1, Everett, WA 98203-6264	2	
QE01845	MA72410	02/06/08	BC Hydro	31867	UCC, GCC, HPU, PAM, PIO Cabinets		Revelstoke	5	BC	Canada	Graham Fenwick	604.528.1928	6911 Southpoint Drive Burnaby, BC V3N 4X8	1	
QE02278	MA72040	12/27/07	IPC LTDA	1915	Ventanas Plant Governor Retrofit - Colombia	HidroTolima	Ventanas		Tolima	Colombia	Carlos Salazar	57.1.310.3688	Calle 53#27-33, Off:6, Orbicentro-2, Bogota, Colombia PC A.A.361086	2	Supply of two governor systems for two 2MW Francis units, including MRT systems with Remote Display Panel, High Pressure HPUs, and Cylinders. This was the first MRT sale otside of North America through a Value-Added Reseller.
QE02193	MA71580	11/02/07	American Electric Power	215073961	Governor Conversion with Remote I/O Option		Smith Mountain	1	VA	USA	Robert Gallimore	540-985-2597	PO Box 2101, Hydro Generation - 3rd Floor, Roanoke, VA 24022-2121	1	
QE02157	MA71570	11/02/07	American Electric Power	215073961	Governor Conversion with Remote I/O Option		Smith Mountain	2	VA	USA	Robert Gallimore	540-985-2597	PO Box 2101, Hydro Generation - 3rd Floor, Roanoke, VA 24022-2121	1	
QE02287	MA71350	10/01/07	Four Dam Pool Power Agency	FDPPA-TER-08-01	Terror Lake Hydroelectric Governor Upgrade Project.		Terror Lake		AK	USA	Joe Earsley	907-258-2281	The Four Dam Pool Power Agency, 703 W. Tudor, Suite 102, Anchorage, AK 99503-6650	2	Turnkey supply of governors and unit control systems for two six needle impulse turbines. The generating unit capacities are 10MVA each.
QE02298	MA71120	08/31/07	Xcel Energy, Inc.	M273181	Shoshone Hydro Plant Rebuild Project		Shoshone	1, 2	CO	USA	Mike Henderson	720-480-1740		2	
QE02108	MA71070	08/24/07	Toshiba International Corp.	SFP-1945	Lake Whitney Governor Replacement	USACE	Lake Whitney	1,2	TX	USA	Hans Naeff	415-403-5651	116 Inverness Drive - Suite 270, Englewood, CO 80112	2	
QE02305	MA71000	08/17/07	Georgia Power Company	07-5095872-C-GPC	PLC Governor Systems		Goat Rock	3, 4, 5, 6	AL	USA				4	

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE02195	MA70990	08/16/07	US Army Corps of Engineers	W9126G-07-P-0469	Sam Rayburn Governor Retrofit		Sam Rayburn	1, 2	TX	USA	Mike Carver	409-384-9368	Sam Rayburn Power Plant At the Dam on Hwy 255 RR3 Box 486 Jasper, Texas 75951-9511	2	L&S Electric responsibilities included the fixed price turnkey supply of two PLC-based governor conversions comprised of commercially available hardware and software to upgrade outdated Pelton mechanical governors. Also included were replacement distributing valve bushings and plungers of current design as well as replacement governor pumps utilizing L&S High Flow Un-loaders. Kidney loop filtration was supplied per the specification.
QE02135	MA70850	07/23/07	Northwest Territories Power Corp.	2028778-000 OP	Backup Governor with Manual Speed Indication, Unit #1		Taltson Hydro Station	1	NT	Canada	Mark Riche, P. Eng.	867.874.5268	Northwest Territories Power Corporation Hay River, NWT X0E 1G2	1	
QE02249	MA70620	06/18/07	Brookfield Power New England	RFQ J-431	Rumford Falls Hydro, LLC., Governor Upgrade Project	Rumford Falls Hydro, LLC.	Rumford Falls	1, 2	ME	USA	Michael Cuddy	603-766-4320 x135	Brookfield Power New England, 100 International Drive Ste 350, Portsmouth, NH 03801	2	
QE02158	MA70540	06/01/07	American Electric Power	215038887	Digital Governor Retrofit Kit		London	3	WV	USA	Robert Gallimore	540-985-2597	PO Box 2021, Hydro Generation - 3rd Floor, Roanoke, VA 24022-2121	1	
QE02199	MA70270	04/24/07	FortisBC	LPG-07008	South Slocan Unit 3 Control and Protection.		South Slocan Power Plant	3	BC	Canada	Steve Hope	250.359.0757	FortisBc, 3100 South Slocan Station Rd., South Slocan, BC V0G 2G0	1	Supply of unit controls, governor, hydraulic power unit, unit protection, and upgrade existing SCADA system.
QE02160	MA70190	04/18/07	Brookfield Power New England	54-10413	Pumped Storage Power Station, Bear Swamp Automation Upgrade Project.	Bear Swamp Power Company, LLC.	Bear Swamp	1, 2	MA	USA	Jeffrey Smith	603.766.4320 ext 131	Brookfield Power New England, 100 International Drive Ste 350, Portsmouth, NH 03801	2	Project consists of the turnkey supply of new plant automation system, two (2) unit automation systems, two (2) digital governor control systems with pilot hydraulic interfaces, program modifications to the Harris RTU and the upgrade of the existing Cimplicity HMI system.
QE02166	MA70160	04/10/07	American Electric Power	215026655	Governor Conversion.		Leesville	1, 2	VA	USA	Robert Gallimore	540-985-2597	PO Box 2021, Hydro Generation - 3rd Floor, Roanoke, VA 24022-2121	2	Unit #1 & #2 Governor Conversion which includes the supply of new Allen Bradley ControlLogix PLC-based governors to replace the existing Woodward MagAmp Cabinet Actuator governors. Speed sensing, position feedback and proportional valve conversion is included. Installation assistance will be provided on a T&M basis. The turbines are Francis type. Functionality is to include speed control, power control and synchronous condense control.
QE02165	MA70140	04/11/07	American Electric Power	215026875	Governor Conversion.		Smith Mountain	4	VA	USA	Robert Gallimore	540-985-2597	PO Box 2021, Hydro Generation - 3rd Floor, Roanoke, VA 24022-2121	1	Governor Conversion which includes the supply of a new Allen Bradley ControlLogix PLC-based governor to replace the existing Woodward 517 DCS governor. Installation assistance will be provided on a T&M basis. The turbine is a Francis type. Functionality is to include speed control, power control and synchronous condense control.
QE02117	M429470	11/14/06	Xcel Energy, Inc.	M219244	Jim Falls Governor Retrofits.		Jim Falls	1, 2	WI	USA	Dean Hagstrom	715-839-1484	1400 Western Avenue, P.O. Box 8, Eau Claire, WI 54702	2	Unit #1 & #2 Governor Conversion which includes the turn-key supply of new Modicon Premium PLC-based governors to replace the existing Woodward MOD II Analog Cabinet Actuator governors. Redundant speed sensing with creep detection, position feedback, proportional valve conversion and installation are included. The turbines are Kaplan type. Functionality is to include speed control, power control and 3D cam control.
QE02020	M429290	10/18/06	Hydro Tasmania	902200	PLC Based Electronic Governor System.		Poatina		Tasmania	Austrailia	Thor Madsen	61(0)362305934	Hydro Tasmania, GPO Box 355, Hobart, TAS 7001, Australia	6	Poatina upgrade and Modernization Project. The project consisted of supplying a governor control system for a four (4) needle impulse turbine. The governor control is based on a PLC controller providing sequential needle control. The project also supplied a hydraulic power unit complete with four (4) hydraulic needle control manifolds with proportional valves and four (4) deflector control manifolds with proportional valves. The HPU was designed to meet Austrailian standards
QE01780	M429230	10/04/06	US Bureau of Reclamation - Lower Colorado	07CP308064	Hydroelectric Unit Control Modernization		Hoover, Parker & Davis Hydroelectric Facilities	Hoover units A1, A2, A3, A4, A5, A6, A7, A8, A9, N1, N2, N3, N4, N5, N6, N7, & N8. Parker units P1, P2, P3 & P4. Davis units D1, D2, D3, D4 & D5.	Arizona, Nevada & California	USA	Ms. Chau Nguyen	702-494-2317	PO Box 60400, LCD-2100, Boulder City, Nevada, 89006-1400	26	The project consisted of supplying unit control and protection systems, unit governor controllers with pilot hydraulic interface, transformer monitoring and protection systems, bus monitoring and protection systems, twenty (20) days onsite training and three (3) complete sets of spare equipment (i.e. unit automation system cabinets, governor system cabinets, generator protection panels, transformer protection panel, transfer bus protection panels and exciters).

Governor Projects Reference List

QE No.	Project No	Order Date	Client	Purchase Order	Project	Owner, if different from Client	Plant Name	Unit, if applicable	Plant Location State/ Province	Plant Location Country	Contact Person(s)	Telephone	Correspondence Address	Governor	Detailed Project Description
QE02076	M429180	09/23/06	US Army Corps of Engineers	W9128F-06-C-0046	Garrison Governor Retrofit		Garrison Dam	1, 2, 3, 4, 5	ND	USA	Dale Evenson	701.654.7441 x3220	Garrison Power Plant, P.O. Box 597, Garrison Dam Road, Riverdale, ND 58565	5	Units #1 - #5 Governor Conversion which includes the turn-key supply of new Allen Bradley ControlLogix PLC-based governors to replace the existing Woodward and Pelton Mechanical Cabinet Actuator governors. Redundant speed sensing with creep detection, redundant position feedback, redundant power feedback, triple redundant pressure sensing, proportional valve conversion and installation are included. The turbines are Francis type. Functionality is to include speed control, power control, synchronous condense, rough zone avoidance, pump echelon control and automatic pressure tank level control. This project is still in progress
QE02086	M429170	09/27/06	We Energies	4500775380	MCPP Unit #3, Woodward Digital Control Upgrade		Milwaukee County Power Plant	Unit 3	WI	USA	Karen Hinkforth, P.E.	414.221.4133	Valley Power Plant WE Energies 1035 West Canal Street Milwaukee, WI 53233	1	
QE01922	M428130	04/19/06	Idaho Power Company	00088840	Standard Digital Governor Head						Brian Davis	208-732-3529	Idaho Power Company, PO Box 300, Hagerman, ID 83332	1	
QE02011	M428120	04/19/06	FortisBC	LPG06003	Unit 2 Control and Protection System Upgrade		Lower Bonnington	2	BC	Canada	Steve Hope	250.359.0757	FortisBC, 3100 South Slocan Station Rd South Slocan BC V0G 2G0	1	Provided SCADA, control, protection and governor systems. Automatic controls are PLC-based. Manual hardwired switches and meters are provided for manual synchronization of the generating unit. Protection consists of multiple digital protective relays. Sequence of events recording (1ms time stamping) system is also provided. The generating unit capacity is 20 MW.
QE01999	M428090	04/10/06	PPL Montana, LLC	00343648	Hauser Hydro Station, Unit 6 High Pressure Governor System		Hauser Hydro Station	6	MT	USA	Blaine Hildreth	406-533-3427	PPL Montana, LLC., 45 Basin Creek Road, Butte, MT 59701-9704	1	Supply of high-pressure replacement governor system for one vertical Francis turbine/generating unit. This project consists of the supply of PLC based high-pressure replacement governor consisting of new hydraulic power unit and proportional valving. Generating capacity is approximately 17MW.
QE01986	M427900	03/29/06	Algonquin Power Systems Inc.	000375	(1) Universal Pilot Control Assembly, MLDT & LVDT for Gateshaft Governor		Beaver Falls GS		NY	USA	Bulmaro Landa	(905) 465-4501	Algonquin Power Systems Inc., 28456 Bristol Circle, Oakville, ON L6H 7H7, Canada	1	
QE01806	M427680	02/08/06	Pacific Gas & Electric	3500692502	Turnkey Supply, Governor-PRV Digital Conversion		Halsey		CA	USA	Difa Shveyd	415 973-3687	245 Market Street, Mail Code N11D, San Francisco, CA 94177	1	Turnkey supply of governor, controls and HPU for a horizontal, double overhung Francis turbine/generating unit. The project also includes the design and supply of a hydraulic PRV control system for the dual PRVs. The PRVs will be removed, refurbished and re-installed under the project scope of supply. Unit generating capacity is approximately 17MW.
QE01873	M427670	02/08/06	Pacific Gas & Electric	3500695469	Digital Governor Conversion for Hydro-Electric Turbine		Spaulding 1		CA	USA	Bill Simpson	415 973-1373	245 Market Street, Mail Code N11D, San Francisco, CA 94177	1	Supply of governor, controls and HPU for a vertical, Francis turbine/generating unit. The project also includes installation supervision, commissioning and training. Unit generating capacity is approximately 8.8MW.
QE01825	M427630	02/06/06	Koontz Electric Company, Inc.	05-2166-05	USACE - Philpott/Kerr Station Service Rehabilitation	USACE	Philpott and Kerr HEPP		VA	USA	Dean Hoover	501-354-2526 ext 110	1223 East Broadway, P.O. Box 501, Morrilton, AR 72110	3	Supply of governor, controls and HPU for three vertical Francis turbine/generating units. The project also includes installation supervision, commissioning and training. Unit generating capacity is approximately 750KVA and 1250KVA
QE01841	M427600	02/02/06	FortisBC	LPG06002	Waneta Unit 4 Protection, Control & Metering		Waneta Generating Station	4	BC	Canada	Steve Hope	250.359.0757	FortisBC, 3100 South Slocan Station Rd South Slocan BC V0G 2G0	1	
QE01529	M427590	02/02/06	FortisBC	LPG06003	Unit 3 Control and Protection System Upgrade		Lower Bonnington	3	BC	Canada	Steve Hope	250.359.0757	FortisBC, 3100 South Slocan Station Rd South Slocan BC V0G 2G0	1	Provided SCADA, control, protection and governor systems. Automatic controls are PLC-based. Manual hardwired switches and meters are provided for manual synchronization of the generating unit. Protection consists of multiple digital protective relays. L&S Electric also supplied a new high-pressure digital/hydraulic governor system to replace the old low-pressure mechanical governor systems. Sequence of events recording (1ms time stamping) systems are provided. The generating unit capacities is 96 MW.
QE01855	M427390	01/09/06	FirstEnergy Corporation	45180172	Seneca Power Plant Project. Upgrade of (3) Governor systems		Seneca Power Plant	1, 2, 3	PA	USA	Jerry Masters	419.249.5896	FirstEnergy Generation Corp., Seneca Plant, 1211 Kinzua Rd., Warren PA 16365	3	Turnkey supply of governors and unit controls for two vertical Francis pump storage turbine/generating units and one vertical Francis turbine/generating unit. The generating capacity of the vertical Francis unit is 30MVA and the capacity of the pump storage units are 200MVA.

SOUTH FEATHER WATER & POWER AGENCY

TO: Board of Directors

FROM: Rath Moseley, General Manager

DATE: September 21, 2023

RE: Water Distribution Optimization
Information Item for 9/26/23 Board of Directors Meeting

Presentation by Advisian on opportunities for increased water distribution.

This is an information item and no action can be taken at the September 26, 2023 SFWPA Regular Board meeting.

SOUTH FEATHER WATER & POWER AGENCY

TO: **Board of Directors**

FROM: **Cheri Richter, Finance Manager**

DATE: **September 21, 2023**

RE: **General Information (regarding matters not scheduled on the agenda)**
9/26/23 Board of Directors Meeting

CalPERS Health Plan Premiums
Open Enrollment for the 2024 health plans began on September 18 and continues through October 13, 2023. As of September 11, CalPERS confirmed that the same four plans available to employees in 2023 will again be available in 2024. The Agency's 2024 Cap has been calculated at $3,108.44 per month, an increase from the 2023 Cap of $2,905.93. Any premium amount over the Cap becomes the employees' responsibility (portion of premium).

Anthem Blue Cross HMO…(1) $1,339.70…(2) $2,679.40…(3+) $3,483.22—**Over Cap by $374.78**.
Blue Shield Access+ HMO…(1) $1,076.84…(2) $2,153.68…(3+) $2,799.78—Not over Cap.
PERS Platinum PPO…(1) $1,314.27…(2) $2,628.54…(3+) $3,417.10—**Over Cap by $308.66**.
PERS Gold PPO…(1) $914.82…(2) $1,829.64…(3+) $2,378.53—Not over Cap.

The information above was distributed to employees over the last two pay periods and CalPERS has also notified members by mail and/or email. All Open Enrollment information is available on the CalPERS website.

Budget Modifications for 2023
The General Fund estimated Capital Outlay was modified for flex budget 2023. Line item 2022-0219 was reduced from $500,000 to $5,861. Line items 2023-53h--$80,000 to $0, 2023-54c--$75,000 to $0, 2023-54i--$15,000 to $0, and line item 2023-56c--$102,000 to $0. The modified items have been marked as *"Reduced or Removed"* on the General Fund Capital Outlay list, pages 11 & 12. The Total Capital Outlay estimated amount was reduced from $1,619,000 to $852,861.

2024 Budget Requests
The 2024 budget request forms were formatted and made available to the individual departments for review and completion. Per the budget calendar, the department budget requests are due to Finance by Friday, October 13th, followed by department meetings with the General Manager scheduled for Thursday, October 26th. Proposed budgets are expected to be presented to Division Managers on November 1st in preparation for review at the Finance Committee meeting scheduled for Thursday, November 9th.

South Feather Water and Power Agency
Joint Facilities Operating Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of Budget
REVENUE:								
41150	Sale of Electricity	10,640,356	17,375,993	17,722,913	18,500,000	23,448,896	17,382,203	94%
41502	Water Sales	0	5,600,000	37,500	2,520,000	2,520,000	2,341,800	93%
42306	Current Service Charges	12,131	54,207	16,588	17,500	19,000	18,281	104%
42331	Concession Income	0	0	0	0	0	0	0%
49250	Interest Income	427,042	(21,957)	0	10,000	10,000	0	0%
49321	State of CA, DWR	0	0	0	0	0	0	0%
49405	Insurance Reimbursement	80,452	67,865	80,181	80,000	0	0	0%
49521	JFOF FEMA	443,135	108,611	3,276	0	0	0	0%
49522	JFOF CalOES	114,763	58,876	0	0	0	0	0%
49929	Miscellaneous Income	0	2,700	1,000	1,000	6,000	4,812	481%
	Total Revenue	11,717,879	23,246,295	17,861,458	21,128,500	26,003,896	19,747,096	93%
OPERATING EXPENSES:								
JFOF Administration, 7-60								
	Salaries & Benefits	1,153,138	855,957	778,800	1,348,762	1,348,762	497,130	37%
	Supplies	2,810	3,671	4,072	7,709	7,709	1,793	23%
	Services	344,280	385,413	372,359	492,421	504,646	361,747	73%
	Utilities	37,989	39,240	42,327	37,060	37,100	27,491	74%
	Fuel, Oil, Auto	498	25	0	3,209	0	0	0%
	Training/Dues	15,180	13,012	12,669	15,385	15,385	228	1%
JFOF Administration, 7-60		1,553,895	1,297,318	1,210,225	1,904,546	1,913,602	888,389	47%
Risk Management, 7-62								
	Salaries & Benefits	97,456	84,945	87,656	133,805	133,805	67,667	51%
	Supplies	3,608	3,622	5,544	26,671	27,771	4,790	18%
	Services	196,865	227,986	175,846	147,540	152,787	124,678	85%
	Training/Dues	3,672	1,929	169	200	200	0	0%
JFOF Environ Health & Safety, 7-62		301,601	318,482	269,214	308,216	314,563	197,135	64%
Power Plant Operations, 7-63								
	Salaries & Benefits	2,735,948	2,042,608	2,199,083	4,043,175	4,137,902	1,678,006	42%
	Supplies	36,001	56,184	98,709	145,720	156,220	102,110	70%
	Services	215,838	187,893	132,109	315,580	315,580	88,846	28%
	Utilities	76,375	49,115	47,946	56,240	95,387	71,690	127%
	Fuel, Oil, Auto			0	95,478	0		
	Training/Dues	315	458	4,884	28,375	28,375	20,975	74%
JFOF Power Plant Operations, 7-63		3,064,477	2,336,258	2,482,731	4,684,568	4,733,464	1,961,628	42%

South Feather Water and Power Agency
Joint Facilities Operating Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of Budget
OPERATING EXPENSES (CON'T)								
Water Collection, 7-64								
	Salaries & Benefits	622,346	568,672	581,547	703,997	707,216	407,701	58%
	Supplies	42,009	47,502	62,511	74,511	74,511	30,948	42%
	Services	686,098	470,214	562,750	570,530	583,740	479,826	84%
	Utilities	10,183	7,995	5,682	0	0	1,204	0%
	Fuel, Oil, Auto	63	0	296	4,520	350	293	0%
	Training/Dues	73	0	30	0	0	0	0%
JFOF Water Collection, 7-64		1,360,772	1,094,383	1,212,816	1,353,558	1,365,817	919,972	68%
Campgrounds, 7-65								
	Salaries & Benefits	52,532	4,385	23,189	127,449	127,449	14,605	11%
	Supplies	978	0	1,227	10,790	10,790	3,237	30%
	Services	7,277	2,567	9,713	59,500	59,500	6,591	11%
	Utilities	7,633	2,300	7,846	7,850	7,850	4,982	63%
	Fuel, Oil, Auto	0	0	0	0	0	0	0%
	Training/Dues	0	0	0	0	0	0	0%
JFOF Campgrounds, 7-65		68,420	9,252	41,975	205,589	205,589	29,415	14%
JFOF Plant & Shop, 7-66								
	Salaries & Benefits	451,378	560,831	391,794	432,064	459,393	301,285	70%
	Supplies	17,291	15,535	44,413	37,396	37,396	15,765	42%
	Services	13,308	25,410	20,949	24,505	24,505	10,562	43%
	Utilities	71,752	85,188	80,128	71,735	73,508	70,973	99%
	Fuel, Oil, Auto	56,431	116,402	116,712	4,774	135,000	100,922	2114%
	Training/Dues	0	0	4,785	2,500	2,500	1,995	0%
JFOF Plant & Shop, 7-66		610,160	803,366	658,781	572,974	732,302	501,502	88%
Regulatory Compliance, 7-67								
	Salaries & Benefits	181,105	142,965	179,336	401,425	401,425	129,405	32%
	Supplies	3,058	3,061	872	38,233	38,263	14,058	37%
	Services	117,517	128,235	388,136	655,350	655,350	265,984	41%
	Utilities	0	0	685	610	610	403	66%
	Training/Dues	199	99	1,980	2,001	4,125	3,210	160%
JFOF Regulatory Compliance, 7-67		301,879	274,360	571,007	1,097,619	1,099,773	413,059	38%

South Feather Water and Power Agency
Joint Facilities Operating Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of Budget
OPERATING EXPENSES (CON'T)								
Communications & IT, 7-68								
	Salaries & Benefits	137,936	313,836	180,292	255,350	259,272	152,682	60%
	Supplies	10,400	35,838	40,934	74,789	76,150	26,312	35%
	Services	44,465	31,656	65,007	65,571	65,571	44,123	67%
	Utilities	1,936	3,455	10,911	11,250	11,250	9,160	81%
	Fuel, Oil, Auto			0	4,774	0		
	Training/Dues	1,729	2,292	3,573	1,025	1,025	1,017	99%
JFOF Communications & IT, 7-68		196,466	387,077	300,717	412,759	413,268	233,294	57%
	TOTAL OPERATING EXPENSES	7,457,670	6,520,496	6,747,468	10,539,829	10,778,378	5,144,395	49%
SUB-TOTAL, REVENUES OVER OPER EXP		4,260,209	16,725,799	11,113,991	10,588,671	15,225,518	14,602,702	
Other Non-Operating Expenses:								
	North Yuba Water District	(709,000)	(709,000)	(709,000)	(709,000)	(709,000)	(531,750)	75%
		(1,476,613)	(1,547,584)	(4,304,278)				
	Interest Expense	(308,393)	(254,956)	(99,804)	0	0		0%
	Pension Expense	0	0	0	0	0		0%
	Captial Outlay							
2010-0828	LCD Crest Modification		51,245	16,307				
2018-0944	JFOF PP-KPH TSV 2019		2,130	0				
2019-0960	KPH Septic System Repair / Replacement		0	77,365				
2020-0970	CO-CAISO meter installation		54,924	4,857				
2021-0971	CO-SCADA upgrade		167,109	(261)				
2021-0972	FPH New Sump Oil Skimmer (Abanaki model SM8C02		7,316					
2021-0973	Vehicle replacement-F350 utility worker truck w/utility		53,728					
2021-0974	WC-South Fork Div Dam Safety Buoys and Log Booms		8,949					
2021-0975	CO-SCADA master install		30,249	0				
2021-0976	PP-FPH Guide Bearing Oil Coolers		65,986					
2021-0977	JS-Truck Replacement for Comm Tech, replace T-101, 2(		38,855					
2021-0978	WC-STA 8 Bridge Deck Replacement		8,538					
2021-0979	CO-Backup generator, pad and appurtenances		31,256					
2021-0980	PP-Forbestown Div Dam SF-17 Access. Repl Stairs, Bric		8,336					
2021-0981	CO-Generator Building at Sunset Hill Main Comm Site		12,302					
2021-0982	JS-Concrete aprons and approach, welding shop and ha		7,184	1,859				
2021-0983	JS-Truck Replacement for Roving Operator, replace 200		0	34,672				
2022-0984	WC-1 ton diesel truck, standard cab, single rear wheel			81,006				
2022-0985	Boom Truck with basket			227,436				

South Feather Water and Power Agency
Joint Facilities Operating Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of Budget
Capital Outlay (con't)								
2022-0986	SCADA Historian server			12,935	15,000	15,000	0	0%
2022-0987	DAC 2 Rack Server for Scada System			54,818				
2022-0988	Shop Press			7,240				
2022-0989	Welding Shop Cabinets			35,003				
2022-0990	Dump truck- 2014 Peterbilt			134,368				
2022-0991	FPH TSV Seal Kit			71,106				
2022-0992	Storage System (SAN) replacement			23,289				
2022-0993	(3) Data Loggers: Black Rock and Kenzie Ravine. HS22+ with GOES Tran			19,103				
2022-0994	Security Cameras for Front Gates and Transformers, WPH, FPH, KPH			11,450				
2022-0995	Mini Excavator			68,754				
2022-0996	Bobcat Skid Steer with Power Broom Attachment			50,753				
2022-0997	Pewag Loader and Grader Snow Chains (3 Sets)			18,186				
2022-0998	GPS Equipment			10,368				
2022-0999	Truck Replace for Roving Operator, replace 2007 Chevy, T-112 - Broken Fr			0			47,858	
2022-0601	Phone system upgrade, 2022			13,488				
2022-0602	Replace SF10 Walkway, SCDD			1,731			4,434	
2022-0603	MRC Panel 300 Access Road Repair			211,138				
2023-0608	FPH Cooling Water Strainer System, engineering and design proposed			0	63,000	63,000	58,670	93%
2023-C63b	FPH Repaint Generator Housing			0	150,000	150,000	147,720	98%
2023-C63c	WPH Repaint Generator Housing and TWD System			0	130,000	130,000	62,000	48%
2023-64c / Capital	WC-LGV Res penstock drain valve replacement				60,000	60,000		0%
2023-64d / Capital	Bangor Canal at SF 25 Shotcrete				15,000	15,000		0%
2021-64o / 2023 64f	WC-RTU Water Logger HS522+ GOES Xmitter Forbestown Ditch				7,500	7,500		0%
2023-63g / Capital	FPH Oil Level Device Upgrade				18,000	18,000		0%
2023-63h / Capital	WPH Oil Level Device Upgrade				18,000	18,000		0%
2023-63i / Capital	KPH Sump Pump and motor				14,000	14,000		0%
2023-64a / Capital	MRC repair, panel 210, 50'				160,000	160,000		0%
2023-0605	MRC Bin Wall Materials				100,000	100,000	96,051	96%
2023-66d / Capital	Welding Shop 3-Ph Propane Generator				45,000	45,000		0%
2022-68e / Capital	WPH PSV Valve Trip System				30,000	30,000		0%
2023-63e / Capital	FPH Tailrace Underwater Concrete Repair				50,000	50,000		0%
2023-63f / Capital	FPH Penstock Recoat 60 Feet				45,000	45,000		0%

South Feather Water and Power Agency
Joint Facilities Operating Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of Budget
2023-63l / Capital	FPH Gen and Exciter House Ozone Scrubber				7,500	7,500		0%
2023-0619	Rock Drills, Bits, and Hydraulic Splitter				27,500	27,500	25,059	91%
2023-64q / Capital	2 Water Quality Meter for the New Aquatics Monitoring Plan, Part 2.2.5.2.				30,000	30,000		0%
2023-64s / Capital	MRC Vertical Wall Replacement Program: (158 Panels/Year for Five Yrs)				557,000	557,000		0%
2023-0613	F-350 Super Cab w/ camper shell- replace T97- elect tech truck				65,000	65,000	55,621	86%
2023-66b / Capital	PDHQ 41KW Propane Generator with 200 amp XFER Switch				50,000	50,000		0%
2023-66c / Capital	CMMS Software System				50,000	50,000		0%
2023-66f / Capital	Backhoe. Existing Unit will Tier Out.				0	0		0%
2023-0609	Water Wagon- Fire suppression. Towable 1000 Gallon with Pump and Sprayer.				15,000	15,000	10,826	72%
2023-0610	Equipment Pole Barn fpr Vehicles - Lower Yard				125,000	125,000	66,414	53%
2023-C66k	Toolbox and tooling. Jobox to Fly In/Out of Powerhouses				15,000	15,000	4,709	0%
2023-0606	Tool Trailer. Exist is old, Overloaded, Bent Axles.				60,000	60,000	16,599	28%

South Feather Water and Power Agency
Joint Facilities Operating Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of Budget
2023-66m / Capital	Tire Equipment, Install, Balancer, Brake Lathe. Save cost of going to Oroville for flats, tire ins				18,000	18,000		0%
2023-66n / Capital	Shop Door- Install Additional on Machine Shop				10,000	10,000		0%
2023-66p / Capital	STA 2 Parking Area Paving - Carpool, Personal Vehicles				0	0		0%
2023-0611	Crane Man Basket- Suspended (For Spillway Access)				14,000	14,000	12,552	90%
2023-0604	F350 Truck + Utility Body Mechanic Truck				80,000	80,000	79,489	99%
2023-0614	F450 Truck + Utility Body Machinist Lloyd Boyer				100,000	100,000	106,595	107%
2023-0615	F450 Truck + Utility Body Machinist Ross Cawthon				100,000	100,000	106,595	107%
2023-67s / Capital	Property acquisition - 5.37 Acre Parcel Adjacent to MRD (072-050-026)				40,000	40,000		0%
2023-0618	WPH PSV Valve Trip System				30,000	30,000	5,156	17%
2023-0616	RTU Upgrades (KPH, FPH, WPH). Exist Out of Support, 10 years old.				60,000	60,000	27,997	47%
2023-0617	RTU Upgrade SPH. Exist Out of Support, 10 years old.				20,000	20,000	13,999	70%
2023-0607	Sunset and HQ Fire Suppression Systems				12,000	12,000	14,084	117%
2023-0612	MRC Stage Transducers				6,000	6,000	3,102	52%
2023-68o / Capital	AC upgrade for comm room				10,000	10,000		0%
2023-C68i	New Hosts				34,000	34,000		0%
2023-68it4 / Capital	Replace Backup storage				11,000	11,000		0%
2023-68it9 / Capital	Finance Software Replacement				10,000	10,000		0%
2023-68it13 / Capital	Point to Point Fiber Circuit - Increase Cost				16,800	16,800		0%
2023-68it14 / Capital	Construction Costs							
	Total Capital Outlay	(2,157,078)	(548,107)	(1,186,971)	(2,509,300)	(2,509,300)	(965,529)	38%
Transfers In:								
	Power Division Legacy Fund	0	0	0	0	0	0	0%
	Retiree Benefit Trust	1,617,546	0	0	0	0	0	0%
Transfers Out:								
	General Fund-Minimum Payment	(709,000)	(709,000)	(709,000)	(709,000)	(709,000)	(354,500)	50%
	General Fund-Overhead	(480,058)	(613,367)	(367,675)	(400,000)	(400,000)	(561,725)	140%
	Retiree Benefit Trust	0	0	0	0	0	0	0%
Net Non-operating, Capital Outlay and Transfers		(4,222,596)	(4,382,014)	(7,376,728)	(4,327,300)	(4,327,300)	(2,413,504)	
	NET REVENUE OVER EXPENSES	37,613	12,343,785	3,737,263	6,261,371	10,898,218	12,189,198	
	Beginning Balance			36,838,728	32,050,695	32,050,695		
	NYWD-Additional Payment			(3,269,900)	(2,000,000)	(2,000,000)	(1,705,498)	
	General Fund-Additional Payment			(3,269,900)	(2,000,000)	(2,000,000)	(1,705,498)	
	Reserve for PG&E Standby			0	0	0	0	
	Ending Balance			34,036,191	34,312,066	38,948,913	8,778,202	

South Feather Water and Power Agency
General Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of BUDGET
REVENUE:								
Water Sales Revenue								
41100	Domestic Water	2,674,305	2,607,133	2,383,082	2,525,000	2,525,000	1,613,132	64%
41400	Irrigation Water	263,727	282,060	285,814	260,000	260,000	169,863	65%
41420	Water Sales, NYWD to Yuba City	195,300	199,215	207,653	200,000	200,000	0	0%
	Sub-Total Water Sales Rev	3,133,332	3,088,408	2,876,548	2,985,000	2,985,000	1,782,995	60%
Power Revenue								
41305	Sly Cr Pwr Generation	1,297,452	1,816,122	1,961,433	1,822,298	2,592,845	1,898,107	104%
41306	Surplus Wtr	25,164	156,026	0	50,000	50,000	0	0%
	Sub-Total Power Rev	1,322,616	1,972,148	1,961,433	1,872,298	2,642,845	1,898,107	101%
Water Service Charges								
42301	Sundry Billing (Job Orders)	57,108	265,038	175,579	100,000	100,000	46,650	47%
42321	Annexation Fees	0	26,239	37,761	0	14,000	13,692	0%
42341	System Capacity Charges	69,801	61,082	148,319	300,000	61,082	43,630	15%
42347	Other Water Serv Charges (Current & Misc.)	29,249	54,799	43,019	25,000	101,291	76,329	305%
	Sub-Total Water Serv Chgs	156,158	407,158	404,678	425,000	276,373	180,300	42%
Non-Operating Revenue								
49250	Interest Earnings	108,903	1,070	245,423	1,000	647,065	573,302	57330%
49311	Property Taxes	681,269	718,188	383,319	741,600	803,356	788,356	106%
49405	ACWA/JPIA RPA	103,294	40,381	45,377	50,000	0	0	0%
49625	Back Flow Installation	9,400	5,385	5,480	5,000	16,182	9,162	183%
49630	Back Flow Inspection	127,236	130,550	137,586	140,000	140,000	93,805	67%
49932	North Yuba Water Dist.	0	0	0	0	0	119,705	0%
	Palermo Clean Water Project	0	0	0	500,000	500,000	0	0%
49929	Other Non-Oper Rev (Misc.)	31,455	2,672	255	1,000	1,000	103	10%
	Sub-Total Non-Oper Rev	1,061,557	898,246	817,440	1,438,600	2,107,603	1,584,433	110%
	TOTAL GENERAL FUND REVENUE	5,673,663	6,365,960	6,060,098	6,720,898	8,011,821	5,445,836	81%

South Feather Water and Power Agency
General Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of BUDGET
OPERATING EXPENSES:								
General Administration, 1-50								
	Salaries & Benefits	785,777	423,633	701,214	860,946	611,705	385,844	45%
	Supplies	5,032	10,424	9,298	9,150	9,150	4,832	53%
	Services	121,268	129,570	93,099	107,920	119,695	117,133	109%
	Utilities	52,010	58,245	59,972	77,350	77,350	39,151	51%
	Fuel, Oil, Auto	0	0	0	4,520	0	0	0%
	Training/Dues	13,616	19,927	23,713	30,620	30,620	3,262	11%
General Admin, 1-50		977,703	641,800	887,297	1,090,506	848,520	550,223	50%
Water Source, 1-51								
	Source of Supply	16,117	14,888	16,536	17,000	18,000	17,189	101%
Water Source, 1-51		16,117	14,888	16,536	17,000	18,000	17,189	101%
Risk Management, 1-52								
	Salaries & Benefits	110,291	90,111	88,521	134,525	134,525	70,362	52%
	Supplies	9,895	3,220	5,068	5,337	12,337	8,605	161%
	Services	118,598	137,138	114,835	133,783	134,283	31,784	24%
	Utilities	910	571	596	600	600	363	60%
	Fuel, Oil, Auto	0	0	0	4,520	0	0	0%
	Training/Dues	169	372	249	300	300	0	0%
Environmental Health & Safety, 1-52		239,863	231,412	209,270	279,065	282,045	111,114	40%
Water Treatment, 1-53								
	Salaries & Benefits	1,427,710	1,324,450	1,476,690	2,290,077	2,290,077	1,053,768	46%
	Supplies	127,484	113,066	155,115	164,000	164,000	79,169	48%
	Services	59,723	32,191	53,059	83,545	83,545	52,162	62%
	Utilities	305,168	309,928	219,583	265,000	265,000	205,662	78%
	Fuel, Oil, Auto	2,510	0	0	18,077	18,077	0	0%
	Training/Dues	833	75	172	1,675	1,675	463	28%
Water Treatment, 1-53		1,923,428	1,779,710	1,904,618	2,822,374	2,822,374	1,391,224	49%
Transmission & Distribution, 1-54								
	Salaries & Benefits	2,387,626	1,952,583	1,932,322	2,857,078	2,857,078	1,385,824	49%
	Supplies	71,974	71,859	94,883	125,310	125,820	61,195	49%
	Services	26,518	25,291	7,092	28,100	28,100	11,415	41%
	Utilities	40,021	48,714	50,490	42,500	64,414	47,490	112%
	Fuel, Oil, Auto	0	4,402	25	144,616	5,000	3,022	2%
	Training/Dues	1,995	3,997	1,435	4,500	4,500	1,607	36%

South Feather Water and Power Agency
General Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of BUDGET
Transmission & Distribution, 1-54		2,528,134	2,106,846	2,086,247	3,202,104	3,084,911	1,510,554	47%
OPERATING EXPENSES (Con't)								
Customer Accounts, 1-55								
	Salaries & Benefits	806,810	758,608	912,823	1,310,772	1,310,772	555,488	42%
	Supplies	112,376	106,891	150,878	133,970	162,318	105,258	79%
	Services	59,573	81,195	63,911	64,340	64,340	51,788	80%
	Utilities	0	964	1,556	1,575	3,064	2,377	151%
	Training/Dues	11,776	12,903	735	1,200	1,200	0	0%
Customer Accounts, 1-55		990,535	960,561	1,129,903	1,511,857	1,541,693	714,912	47%
General Plant & Shop, 1-56								
	Salaries & Benefits	527,789	388,464	440,504	673,260	673,260	309,310	46%
	Supplies	16,376	11,380	28,507	54,400	54,400	10,141	19%
	Services	13,755	2,587	585	600	3,492	2,688	448%
	Utilities	26,908	28,357	33,300	40,475	40,475	31,946	79%
	Fuel, Oil, Auto	113,709	121,999	186,724	4,520	168,992	102,735	2273%
General Plant & Shop, 1-56		698,537	552,787	689,620	773,255	940,619	456,819	59%
Sundry & Expense Credits, 1-57								
	Salaries & Benefits	27,334	29,256	26,512	30,000	30,000	7,821	26%
	Supplies	22,290	33,167	46,334	60,000	60,000	18,890	31%
	Services	235	42,430	7,714	5,000	6,900	6,832	137%
Sundry, 1-57		49,859	104,853	80,560	95,000	96,900	33,543	35%
Information Technology, 1-58								
	Salaries & Benefits	419,238	317,458	205,698	387,744	387,744	141,406	36%
	Supplies	13,622	7,630	38,259	45,730	45,730	17,749	39%
	Services	62,351	47,253	81,390	73,986	73,986	50,914	69%
	Utilities	3,045	2,479	2,355	2,650	2,650	962	36%
	Fuel, Oil, Auto	0	0	0	4,520	0		
	Training/Dues	1,701	6,228	175	525	4,175	4,028	767%
Information Systems, 1-58		499,957	381,048	327,877	515,155	514,285	215,059	42%
Sly Creek Power Plant, 1-61								
	Salaries & Benefits	363,028	323,779	487,905	540,089	540,089	288,242	53%
	Supplies	12,846	9,402	22,081	17,110	20,850	15,103	88%
	Services	39,758	36,821	36,699	29,312	32,123	28,715	98%
	Utilities	22,677	23,802	13,348	18,900	34,513	25,411	134%
	Auto Expense	0	39	66	0	0	0	0%

South Feather Water and Power Agency
General Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of BUDGET
Sly Creek Power Plant, 1-61		438,309	393,843	560,100	605,411	627,575	357,470	59%
	TOTAL OPERATING EXPENSES	8,362,442	7,167,748	7,892,026	10,911,726	10,776,923	5,358,107	49%
SUB-TOTAL, REVENUES OVER OPER EXP		(2,688,779)	(801,788)	(1,831,928)	(4,190,828)	(2,765,102)	87,729	-2%
Other Non-Operating Expenses								
	Supplies & Servces	3,600	3,400	3,908	3,600	3,600	0	0%
	Interest	826,793	808,521	798,765	787,026	787,026	394,311	50%
	Principal	600,000	615,000	635,000	655,000	655,000	655,000	100%
	Pension Expense	0	0	0	0	0	0	0%
Other Non-Operating Expenses:								
CAPITAL OUTLAY:								
2019-0192	TD-Distribution System Remote Monitoring		9,551	5,438			4,627	
2020-0198	Community Line, Foothill Blvd./Oro Bangor Hwy to Grange		68,058				0	
2020-0200	Oro-Bangor Hwy/BTP to Avacado		48,097	394			0	
2020-0970	SPH-CAISO meter installation		26,094	4,857			0	
2021-0204	MRTP #2 raw water pump replacement		64,907					
2021-0205	Hwy 162 / Arbol		129,559					
2021-0206	IT-MRTP SAN replacement		23,185					
2021-0207	CA-Meter reader communications		1,750	4,557			0	
2021-0208	Replace 1998 Bobcat mini excavator, E-123		0	68,635			0	
2021-0209	IT-Fiber optic and switches replacement		0	10,296			6,398	
2021-0210	Replace 2009 Ford F-350, T-82		0	0			0	
2021-0971	SPH-SCADA upgrade		55,638	0			1,255	

South Feather Water and Power Agency
General Fund Unaudited Financial Report
September 26, 2023 Board Meeting

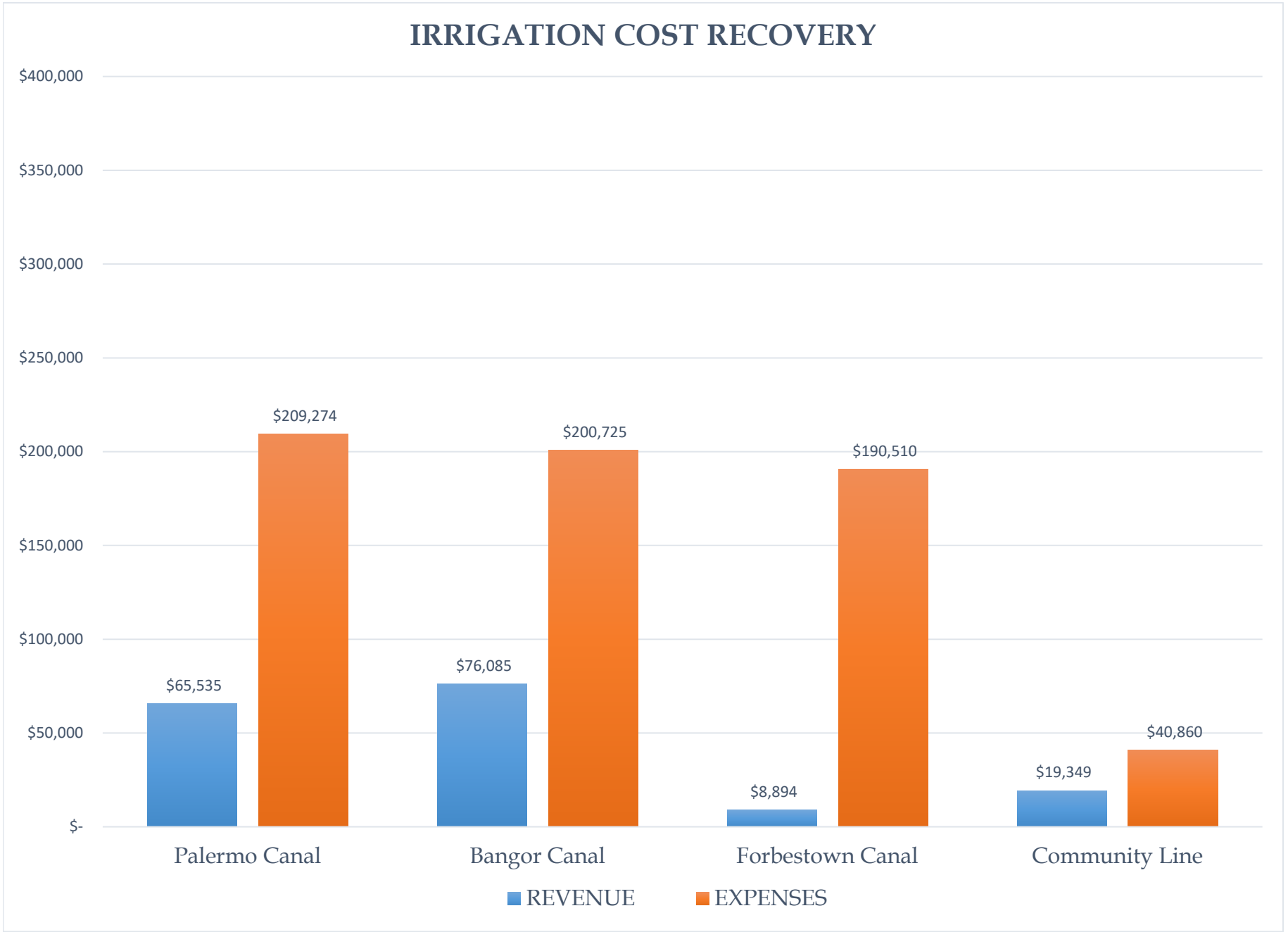
ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of BUDGET
CAPITAL OUTLAY (Con't)								
2022-0212	Vacuum, portable, towable			29,706			0	
2022-0213	Shotcrete Pinecrest (pipe)			22,304			0	
2022-0214	Streaming Current Analyzer with Organics module			21,742			0	
2022-0215	Ditchtender vehicle, 2021 Ford Ranger, T-318			42,785			0	
2022-0216	SPH station air compressor			10,997			0	
2022-0217	Meter Service Technician vehicle, 2022 Ford F250			69,682			0	
2022-0218	Storage System (SAN) replacement			32,743			0	
2022-0219	~~Palermo clean water 2022~~ ***Reduced***			72,743	500,000	5,861	5,861	1%
2022-0220	MRTP security cameras upgrade			8,138			0	
2022-0221	SPH security cameras for front gate and transformer			3,937			0	
2022-0222	Trailer for Bobcat (see 2021-0208)			28,305			0	
2022-0223	GPS Equipment			8,083			0	
2022-0224	Wood chipper			37,538			0	
2022-0225	Phone system upgrade, 2022			17,638			0	
2022-0226**	MRTP raw water pump 3 replacement			0			0	
2022-0227	SPH PSV Roof Replacement and Rockfall Protection			10,925	75,000	75,000	5,014	7%
2023-53a / Capital	MRTP metal storage & work shop building				0	0		
**2022-0226	~~Portable, towable generator for BTP~~ Durham Pump 125 HP 900RPM Motor				30,000	30,000	30,002	100%
2023-0235	Replacement truck for T177				50,000	50,000	44,674	89%
2023-53d / Capital	Solar field inverter replacement				0	0		
2023-C53e	Filter NTU meters replacement, 4				22,000	22,000	9,017	41%
2023-C53g	Asphalt seal coat, entire facility, 60.000 sq ft.				15,000	15,000	12,945	86%
2023-53h / Capital	~~Replacement truck for T308 (R. Liese)~~ ***Removed***				80,000	0		0%
2023-53j / Capital	MGT recoating interior and hydropneumatic interior coating				0	0		
2023-53k / Capital	MGT fencing				32,000	32,000		0%
2022-54t / Capital	North Ditch Lincoln to Messina irrigation - Engineering Study for design				0	0		
2023-52a / Capital	Ground Penetrating Radar Equipment				25,000	25,000		0%
2023-54a / Capital	Distribution System Remote Monitoring, 2023				12,000	12,000		0%
2023-54b / Capital	Domestic - Oro Pond Service Lines and Meter Replacements				25,000	25,000		0%
2023-54c / Capital	~~Domestic - Coventry Interloop + Regulator Vault~~ ***Removed***				75,000	0		0%
2023-54e / Capital	Irrigation - Dunstone line 12" (meter, manifold and valve)				20,000	20,000		0%
2023-0230	Irrigation - Shotcrete Pinecrest				10,000	10,000	10,422	104%
2023-54g / Capital	Irrigation - Bangor Canal Siphon -(Rocky Honcut)				10,000	10,000		0%
2023-54h / Capital	Domestic - Sunset View Service Line				0	0		
2023-54i / Capital	~~Domestic - Miners Ranch (Chopan) Line Replacement~~ ***Removed***				15,000	0		0%
2023-54j / Capital	Irrigation - South Villa Raw Water Line Replacement 500'				35,000	35,000		0%

South Feather Water and Power Agency
General Fund Unaudited Financial Report
September 26, 2023 Board Meeting

ACCOUNT	DESCRIPTION	2020 ACTUAL	2021 ACTUAL	2022 ACTUAL	2023 BUDGET	2023 ESTIMATED	2023 ACTUAL 8/31/2023	% of BUDGET
2023-54k / Capital	Irrigation - Palermo Canal Beaver Grizzly Vertical Shoring				12,000	12,000		0%
2023-0234	Irrigation - Lower Forbestown Ditch - Old Olive Hwy 140' 8" Pipe Replacement				8,000	8,000	5,867	73%
2023-54p / Capital	Irrigation - Miller Hill Gauging Stations				12,000	12,000		0%
2023-54q / Capital	Irrigation - Oakvale Palermo Canal 900' Shotcrete				37,000	37,000		0%
2023-54r / Capital	Domestic - Oro Bangor Malengo Pipe Replacement				0	0		
2023-54s / Capital	Irrigation - Culvert Replacement Ridgeway				20,000	20,000		0%
2023-54t / Capital	Domestic - Chames Court, 500' 6" AC Replacement				0	0		
2023-56a / Capital	Replace 2011 Ranger 4x4 Ditchtender T-302				35,000	35,000		0%
2023-56b / Capital	Replace 2011 Ranger 4x4 Ditchtender T-303				35,000	35,000		0%
2023-56c / Capital	~~Replace 1990 Ford F700 diesel/flatbed dump, T-132~~ ***Removed***				102,000	0		0%
2023-56d / Capital	Replace 2012 Ford F150 Supercab 3/4 ton gas T-304				35,000	35,000		0%
2023-56e / Capital	Replace 2002 Chevy Tahoe C-3 (orignally requested for Dept 50)				0	0		
2023-58f / Capital	Replace 2 Hosts				34,000	34,000		0%
2023-58g / Capital	Replace Copier				0	0		
2023-58h / Capital	Plotter replacement				0	0		
2023-58l / Capital	Finance Software Replacement				10,000	10,000		0%
2023-61a / Capital	SPH Governor upgrade				200,000	200,000		0%
2023-61b / Capital	SPH Exciter upgrade				0	0		
2023-C61d	SPH Bearing Cooling Water Flow Device Upgrade				20,000	20,000		0%
2023-C61e	SPH oil flow device upgrade				20,000	20,000		0%
2023-61f / Capital	SPH Bitronics line-side metering xducer				8,000	8,000		0%
	Total Capital Outlay	307,591	426,839	511,444	1,619,000	852,861	136,081	8%
Transfers:								
	SFPP Jt Facil Oper Fd-Minimum Payment	709,000	709,000	709,000	709,000	709,000	177,250	25%
	SFPP Jt Facil Oper Fd-Additional Payment	0	0	3,269,900	2,000,000	2,000,000	1,705,498	85%
	SFPP Jt Facil Oper Fd-Overhead	480,058	613,367	367,675	400,000	400,000	561,725	140%
	System Capacity Fund	194,946	0	0	0	0	0	0%
	Retiree Benefit Trust Fund	1,977,001	0	0	0	0	0	0%
Net Non-Operating, Capital Outlay and Transfers		1,623,021	(531,393)	2,397,458	44,374	810,513	1,259,081	2837%
	NET REVENUE OVER EXPENSES	(1,065,758)	(1,333,180)	565,530	(4,146,454)	(1,954,589)	1,346,810	
	Beginning Balance				1,640,341	1,640,341	1,640,341	
	Ending Balance				(2,506,113)	(314,248)	2,987,151	

South Feather Water & Power Agency
Irrigation Water Accounting
Through
August 31, 2023

ACCT CODE	DESCRIPTION	REVENUE	EXPENSES	DIFFERENCE
2023-0504	Palermo Canal	$ 65,535	$ 209,274	($143,738)
2023-0505	Bangor Canal	$ 76,085	$ 200,725	($124,640)
2023-0506	Forbestown Canal	$ 8,894	$ 190,510	($181,616)
2023-0507	Community Line	$ 19,349	$ 40,860	($21,512)
	Totals	$ 169,863	$ 641,368	($471,506)


IRRIGATION COST RECOVERY
$400,000
$350,000
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$-
$65,535
$209,274
$76,085
$200,725
$8,894
$190,510
$19,349
$40,860
Palermo Canal
Bangor Canal
Forbestown Canal
Community Line
REVENUE
EXPENSES

SOUTH FEATHER WATER AND POWER AGENCY
SCHEDULE OF CASH AND INVESTMENTS
August 31, 2023

General Fund Cash and Savings Account							$ 9,127,606	
LAIF							26,358,864	
CalTrust							1,396,556	
Five Star Bank							1,140,135	
Fixed Income portfolio	Rate	Purch Date	Purch Price	Face Value	Maturity	Market Value		Estimated Annual Income
Cash / Money Market						119,952		
Synchrony Bank CD	0.40%	9/30/2021	245,000	245,000	9/29/2023	244,057		980
Medallion Bank CD	0.25%	10/26/2020	135,000	135,000	10/27/2023	133,956		338
New York Community Bank CD	0.30%	11/9/2020	245,000	245,000	11/9/2023	242,677		735
Beal Bank CD	0.60%	12/20/2021	245,000	245,000	12/20/2023	241,457		1,470
Federal Home Loan Bond	0.19%	12/29/2020	249,777	250,000	12/22/2023	245,905		475
Bank OZK CD	4.50%	11/18/2022	245,000	245,000	1/18/2024	244,167		11,025
Customers Bank CD	4.80%	11/22/2022	245,000	245,000	2/23/2024	244,253		11,760
US Treasury Note	0.25%	1/18/2022	258,479	262,000	3/15/2024	254,887		655
Bankunited Bank CD	0.35%	3/15/2021	245,000	245,000	3/19/2024	238,204		858
Ally Bank Sandy Utah CD	1.70%	3/25/2022	245,000	245,000	3/25/2024	239,904		4,165
Comenity Capital Bank CD	2.25%	4/14/2022	245,000	245,000	4/15/2024	240,171		5,513
Web Bank CD	0.40%	5/11/2021	245,000	245,000	5/17/2024	236,374		980
UBS Bank CD	0.35%	6/23/2021	245,000	245,000	6/24/2024	234,926		858
Texas Exchange Bank CD	0.50%	7/9/2021	105,000	105,000	7/9/2024	100,584		525
First Technology Credit Union CD	3.25%	8/5/2022	245,000	245,000	8/5/2024	239,880		7,963
Toyota Finl Svgs Bank CD	0.55%	8/5/2021	245,000	245,000	8/5/2024	233,919		1,348
BMW Bank CD	1.70%	3/4/2022	245,000	245,000	9/4/2024	235,759		4,165
State Bank of Dallas CD	0.70%	12/31/2021	245,000	245,000	10/1/2024	232,429		1,715
Institution for Svg in Newburyport	0.70%	10/28/2021	245,000	245,000	10/28/2024	231,613		1,715
Merrick Bank CD	0.80%	11/19/2021	245,000	245,000	11/19/2024	231,270		1,960
Live Oak Banking CD	0.85%	12/29/2021	245,000	245,000	12/30/2024	230,234		2,083
Federal Home Loan Bond	1.25%	1/28/2022	250,000	250,000	1/28/2025	235,885		3,125
Federal Home Loan Bond	1.55%	2/18/2022	249,781	250,000	2/18/2025	236,420		3,875
Federal Home Loan Bond	2.00%	12/6/2022	235,791	250,000	3/28/2025	237,528		5,000
Bank of Dells Wisconsin CD	4.40%	12/23/2022	245,000	245,000	4/23/2025	240,717		10,780
Capital One Natl Assn CD	3.10%	6/16/2022	246,000	246,000	6/16/2025	236,035		7,626

Oregon Community CU, CD	5.15%	6/21/2023	240,000	240,000	6/23/2025	238,584		12,360
Federal Home Loan Bond	3.55%	8/18/2022	245,000	245,000	7/25/2025	237,334		8,698
Connexus Credit Union CD	3.50%	8/26/2022	245,000	245,000	8/26/2025	235,918		8,575
Austin Telco Fed CU CD	3.75%	9/21/2022	249,000	249,000	9/22/2025	240,708		9,338
Capital One Bank USA CD	0.90%	11/17/2021	245,000	245,000	11/17/2025	222,051		2,205
United Bankers Bank CD	4.50%	3/17/2023	250,000	250,000	12/17/2025	246,450		11,250
Washington Fed Bank CD	4.70%	12/12/2022	245,000	245,000	12/22/2025	241,151		11,515
Liberty First Credit Union	4.55%	1/17/2023	249,000	249,000	1/1/2026	244,159		11,330
Federal Home Loan Bond	0.68%	12/15/2021	243,905	250,000	2/24/2026	225,183		1,700
Eaglebank Bethesda MD CD	4.25%	2/24/2023	245,000	245,000	2/24/2026	238,471		10,413
Direct Federal CU CD	4.70%	3/8/2023	152,000	152,000	3/9/2026	149,486		7,144
Truliant Federal Credit CD	5.15%	3/22/2023	140,000	140,000	3/23/2026	139,173		7,210
American Express Natl Bank CD	4.95%	3/31/2023	243,000	243,000	3/30/2026	240,414		12,029
Discover Bank CD	4.50%	4/26/2023	245,000	245,000	4/27/2026	239,681		11,025
Morgan Stanley Bank NA CD	4.60%	5/24/2023	245,000	245,000	5/26/2026	240,203		11,270
State Bank of India CD	1.00%	6/10/2021	245,000	245,000	6/10/2026	217,685		2,450
Sallie Mae Bank CD	4.80%	7/19/2023	245,000	245,000	7/20/2026	241,384		11,760
BNY Mellon NA Instl Ctf Dep CD	4.75%	8/23/2023	245,000	245,000	8/24/2026	241,031		11,638
Bremer Bank NA CD	4.80%	8/31/2023	245,000	245,000	8/31/2026	241,364		11,760
			10,601,733	10,626,000				
		Total Fixed Income Portfolio:			**Market Value**	10,403,590		$ 265,356
								2.55%
		TOTAL CASH & Market Value of INVESTMENTS AT				**8/31/2023**	$ 48,426,751	

I certify that all investment actions have been made in full compliance with Policy #470- Investments,
and that South Feather Water and Power Agency will meet its expenditure obligations for the next six months.

Submitted by: Cheri Richter, Finance Manager 8/31/2023

Investment Transactions as of: August 31, 2023

$245,000 CD purchased 8/23/2023 from BNY Mellone NA, 4.75%, matures 8/24/2026, with Luana Savings Bank CD, 8/14/2023 maturity.
$245,000 CD purchased 8/31/2023 from Bremer Bank NA CD, 4.80%, matures 8/31/2026, w/ John Marshall Bancorp CD, 8/31/2023 maturity.

SOUTH FEATHER WATER & POWER AGENCY

TO: **Board of Directors**

FROM: **Dan Leon, Power Division Manager**

DATE: **September 21, 2023**

RE: **General Information (regarding matters not scheduled on agenda)**
September 26, 2023 Board of Directors Meeting

OPERATIONS

Power Division Summary, Reservoir Storage, and Precipitation Reports for August 2023 are attached.

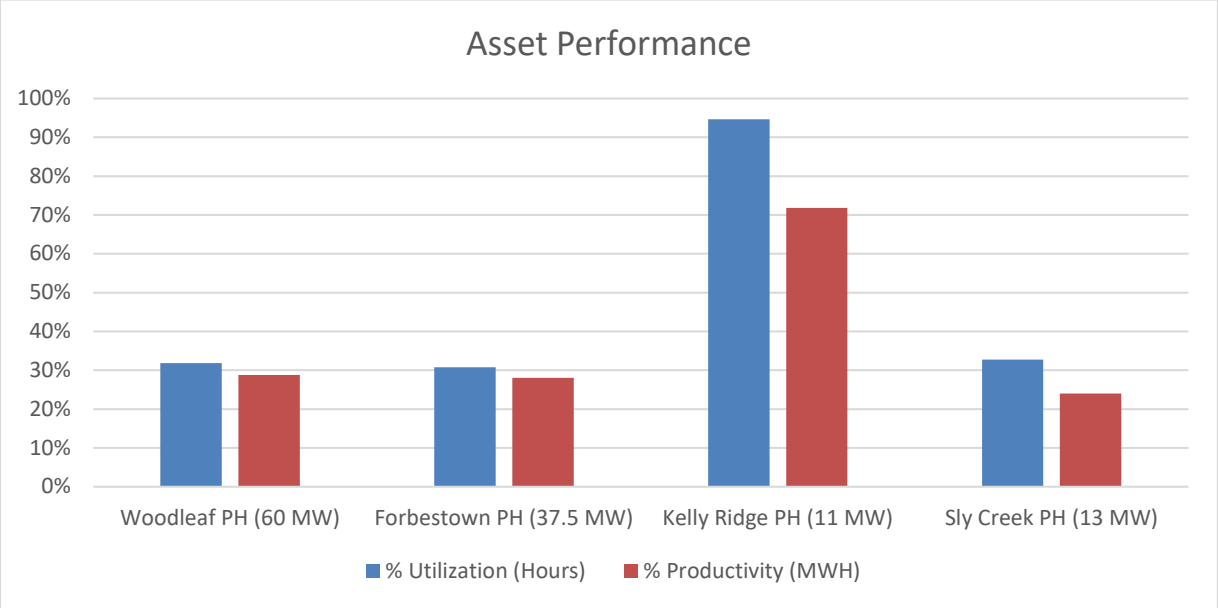
South Fork Div tunnel average flow was 161 CFS. Slate Creek Div tunnel was closed for the month. Little Grass Valley and Sly Creek Reservoirs combined storage was 118 kAF at month's end. No reservoirs are currently spilling.

The 2023 water year ends on Sept 30, 2023. DWR Bulletin 120 observed precipitation conditions and reports will resume in the 2024 water season.

Table A in this report summarizes the Power Project Reservoir and Generation data. Table B covers historical water data and averages for our Storage Reservoirs. Table C contains the Northern Sierra 8-Station Precipitation Index.

ASSET PERFORMANCE

Asset performance and availability for August 2023 summarized in the following two tables:



Generation Asset Availability				
a. Powerhouse	b. Capacity MW	c. Available for Gen. Hrs	d. Gen. Dispatched above 50% Output Hrs	e. Gen. Dispatch Potential Output Hrs
Woodleaf	60.0	741	224	517
Forbestown	37.5	744	220	524
Kelly Ridge	11.0	665	435	230
Sly Creek	13.0	739	236	503

MAINTENANCE

Powerhouses

- Woodleaf Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for February 2024. Fabricate new controls for penstock. Forced outage: Trip on Low Penstock Pressure.
- Forbestown Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for March 2024.
- Sly Creek Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for October 2 thru 21, 2023. Prep for upcoming outage. Sched outage: Agency repair of governor air compressor controls.
- Kelly Ridge Powerhouse. Status: In service, normal dispatch schedule. Annual maintenance outage scheduled for November 1 thru 18, 2023. Sched outage: Unit was offline due to PG&E Transmission line maintenance.

Project Facilities and Assets

- LGV Dam – Adjust lower outlet releases
- Sly Creek PH Tunnel – install new roofing, safety railing, ladders, grip strut
- Sly Creek Dam – Perform PMs on spillway, compressors, and equipment
- LCD Bridge Deck – Repair roadway deck joints
- Penstocks – Perform quarterly inspections
- SF-14 – Remove slide material
- Station 8 – Clean and inspect trashracks
- Station 6 – Install new telemetry equipment
- Station 3 – Clean and inspect grizzly
- MRC – perform inspections and clean trashracks
- Various sites - Install new rain gauges
- Various sites - Install new security equipment
- Microwave comm system – Plan for upgrades
- Vehicle and equipment fleet – perform maintenance and service

REGULATORY COMPLIANCE

Updates to the 2023 Priority Regulatory Compliance Budgeted Projects:

- Slate Geotechnical staff completed the final versions of the Dam Safety Surveillance Monitoring Plans and 2022 Reports (DSSMP/DSSMR) for Little Grass Valley, Sly Creek, Lost Creek, Ponderosa and Miners Ranch Dams. These reports reflect updates to monitoring and documentation protocols that were suggested in the Part 12D Safety Inspection Reports. Staff continue to work with the Slate team to complete updates to the Supporting Technical Information Documents, and development of SOPs for Dam Safety, Maintenance, Operations and Hydrography.

- Staff received the draft version of the Schnabel Engineering Owners Dam Safety Program Audit Report as due on September 6th. Staff will be meeting with the Schnabel team to review the report tomorrow, and the draft ODSP Manual is due on October 6th. This Board will be receiving a presentation of findings and the overview of the updated ODSP from the Principal Engineer at the regularly scheduled October meeting.

- Since contract issuance on June 14th, the Gannett Fleming team has completed the following work items:
    - Agenda & Minutes for June Kickoff call, July check in, August discussion of Change Order, and August check in.
    - Review of historical physical and cyber security documents, project construction financials, applicable ODSP and EAP documents.
    - Site Visits August 29-31. Concluding debrief of high level observations.
    - Gap Analysis of Security Plans.

- Development of Consequence Assessment in support of compiling Dam Assessment Matrix for Security and Vulnerability Risk (DAMSVR).
- Ongoing review of our cybersecurity protocols in support of compiling the DAMSVR.
- Ongoing review of structural components of the Project in support of compiling DAMSVR.
- Review and comment on Response Plan & Schedule for September 2022 FERC inspections. Assisted with action plan for compliance on outstanding items.

Annual Safety and Maintenance Inspections:

Staff went out with our FERC field engineer August 22-23 to inspect our high hazard dams and appurtenant structures, Sly Powerhouse, Ponderosa Diversion Dam, the Kelly Penstock and Powerhouse. Maintenance and Operations crews received high praise for how much work they complete to maintain the dams and powerhouses.

Staff went out with our DSOD Area Engineer September 13-14 to inspect all nine dams and appurtenant structures jurisdictional to the state. Crews received high praise and thanks for how hard they work to address previously noted issues. There are still some items that need long term capital planning to address, but overall, we expect to receive favorable reports with regard to continued safe operation of Agency dams. Those will be forthcoming after our Engineer has had time to review the DSSMR reports recently completed by Slate Geotechnical.

Association of State Dam Safety Officials – Technical Conference:

The Agency's Owners Dam Safety Program requires documentation of staff training at all levels, as well as continuous improvements to the overall program. The Agency is a member of the Association of State Dam Safety Officials (ASDSO), which is the leading national non-profit association dedicated to dam and levee safety. ASDSO was created in 1983 in response to an urgent need for establishing and strengthening state dam safety programs and improving interstate communication about dam safety. The 2023 Annual Conference was an opportunity for staff to attend three days of concurrent sessions highlighting current industry standards, and presentations on real life projects pertaining to Emergency Action Plans, Potential Failure Mode Analysis, Probable Maximum Flood modeling, Historic Dam Failures, Federal Policy updates, and many other regulatory and infrastructure issues faced by dam owners. The fourth day was a half day workshop providing an overview of Federal funding opportunities available to dam owners, and how to navigate these funding opportunities for addressing major ticket items in the world of dam safety. Additionally, our state and federal regulators were in attendance, and it was a great opportunity to demonstrate our commitment to training and network with industry peers.

PROJECT WORK

Powerhouse Recoating Projects

The much needed recoating projects at three Agency Powerhouses are now complete. Techno Coatings Inc. completed surface prep, primer coating and final coating of the Generator Housing and a 60' section of the fire damaged penstock at Forbestown Powerhouse, the Generator Housing and TWD system at Woodleaf Powerhouse and the underground PRV and other chamber components, and the above ground Generator Housing and cranes at Sly Powerhouse. The Techno Coatings crew were meticulous with everything they touched, and completed all work according to industry standards including ASTM D3276 Standard Guide for Painting Inspectors (Metal Substrates), and ASTM D4414 Standard Practice for Measurement of Wet Film Thickness by Notch Gages. Please see the attached Before and After photos.

Forbestown Power Division HQ Pole Barn

With approved budget in 2023, the agency has procured a new prefabricated steel structure for the shelter and storage of large equipment at the Forbestown Office. The plans have been submitted to the county and we are currently in plan check. We should have an issued permit in the coming months. We are planning to break ground as soon as the weather allows next year.

Forbestown and Woodleaf Powerhouse Oil Level Monitoring Devices

The agency has budgeted this year to purchase new oil level monitoring devices for the bearing oil levels in Woodleaf and Forbestown powerhouses. Each unit has three critical bearings that support and guide the unit. Each bearing is surrounded by a tub that contains the oil needed by the bearings. The oil levels must be monitored and maintained to ensure safe operation of the units. The existing oil level monitoring devices are obsolete and unreliable, and the new devices will provide more accurate and reliable readouts. New oil level devices and their supporting hardware will be purchased and installed during the upcoming outages.

PERSONNEL

Retirement – Gary Daley, Electrical Machinist

Gary Daley retired this month. He was employed with the Agency for over 28 years, and a very competent team member in his roles and assignments. In his roles at the Water Division and Power Division, he performed his work with a priority on safety, and did an excellent job maintaining the Agency's water and power assets. He generously provided training and mentoring for new workers. We wish Gary a wonderful retirement, and we will miss him.

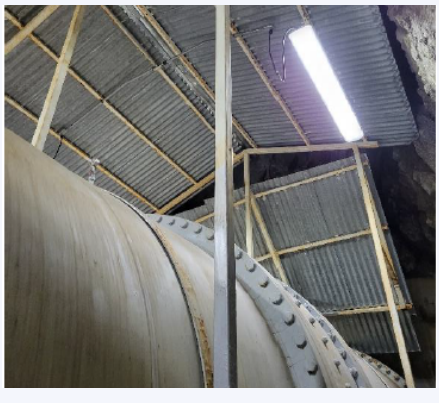
Recruitment – Electrical Machinist, Journey Level

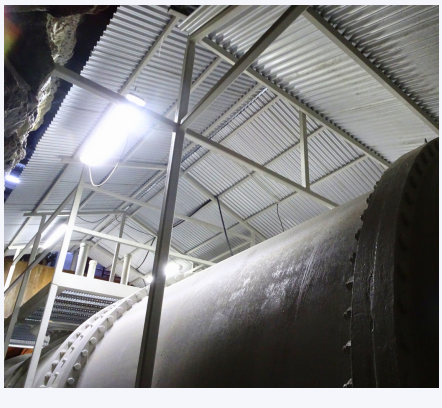
The Agency is recruiting for an Electrical Machinist, Journey Level, in response to staff retirement.

Sly Powerhouse Recoat








Woodleaf Powerhouse Recoat






Forbestown Powerhouse Recoat





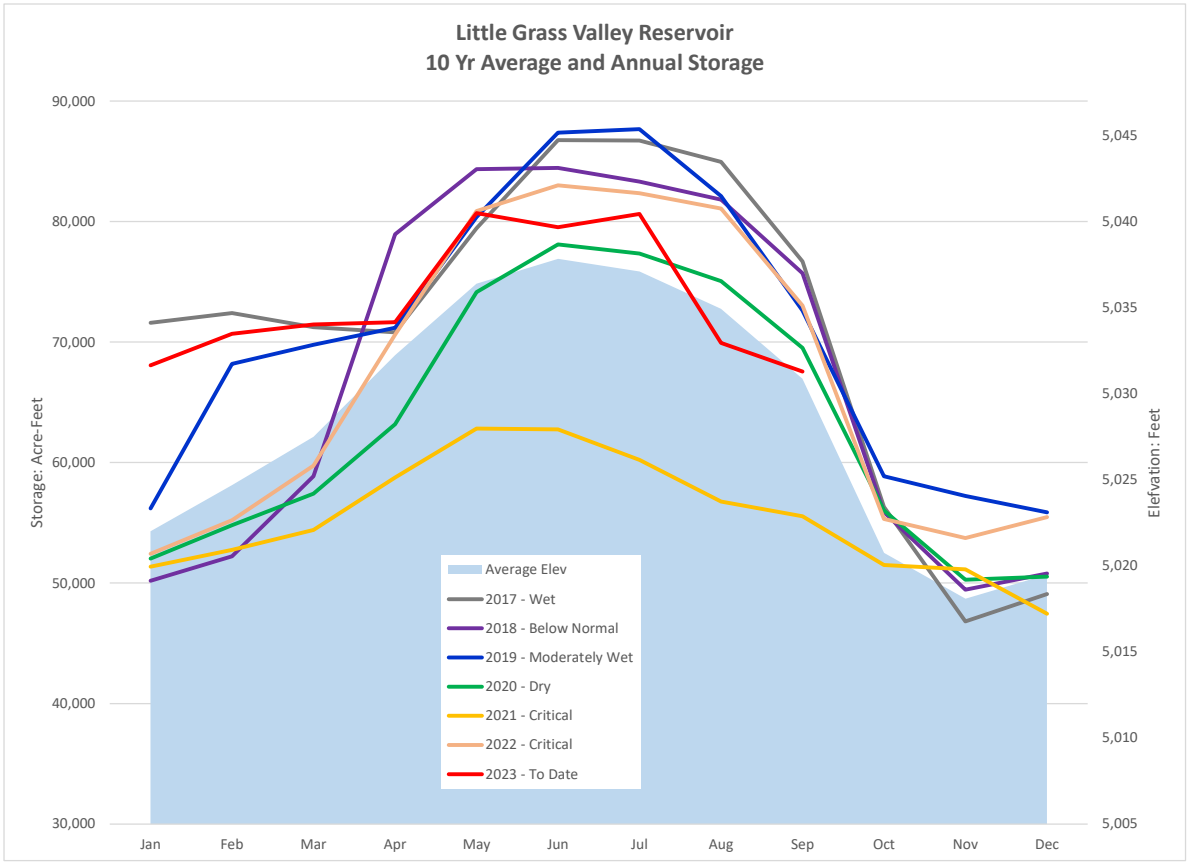

SOUTH FEATHER WATER AND POWER
SOUTH FEATHER POWER PROJECT
2023
Reservoir and Stream Operations

Table A.

	RESERVOIR ELEVATIONS		MONTHLY AVERAGE STREAM RELEASES			
	Little Grass Valley	Sly Creek	Release to SFFR at LGV Dam	Release to SFFR at Forbestown Div.	Release at Lost Creek Dam	Release at Slate Creek Div.
Maximum Elevation	5,046.50 Feet	3,530.00 Feet				
End of Month Conditions						
January	5,034.43 Feet	3,502.81 Feet	8.32 cfs	204.00 cfs	113.00 cfs	430.00 cfs
February	5,034.74 Feet	3,506.16 Feet	7.89 cfs	7.69 cfs	7.19 cfs	79.80 cfs
March	5,034.72 Feet	3,515.27 Feet	7.93 cfs	681.00 cfs	274.00 cfs	598.00 cfs
April	5,037.80 Feet	3,520.28 Feet	39.80 cfs	171.00 cfs	179.00 cfs	576.00 cfs
May	5,041.71 Feet	3,524.87 Feet	405.00 cfs	230.00 cfs	199.00 cfs	824.00 cfs
June	5,041.37 Feet	3,517.54 Feet	178.00 cfs	62.60 cfs	43.90 cfs	191.00 cfs
July	5,039.19 Feet	3,509.53 Feet	66.20 cfs	11.00 cfs	12.00 cfs	23.00 cfs
August	5,032.30 Feet	3,507.57 Feet	160.00 cfs	11.00 cfs	12.10 cfs	13.60 cfs
September	0.00 Feet	0.00 Feet	0.00 cfs	0.00 cfs	0.00 cfs	0.00 cfs
October	0.00 Feet	0.00 Feet	0.00 cfs	0.00 cfs	0.00 cfs	0.00 cfs
November	0.00 Feet	0.00 Feet	0.00 cfs	0.00 cfs	0.00 cfs	0.00 cfs
December	0.00 Feet	0.00 Feet	0.00 cfs	0.00 cfs	0.00 cfs	0.00 cfs

Powerhouse Operations

	Sly Creek	Woodleaf	Forbestown	Kelly Ridge	Energy Revenue
January	5,428.21 MWH	32,624.64 MWH	25,726.22 MWH	7,437.09 MWH	$3,195,636.16
February	2,677.38 MWH	18,497.44 MWH	12,943.98 MWH	5,397.99 MWH	$1,743,491.85
March	5,274.14 MWH	26,121.91 MWH	15,726.87 MWH	7,394.35 MWH	$2,393,833.10
April	5,866.43 MWH	28,278.41 MWH	21,001.38 MWH	6,702.65 MWH	$2,877,336.02
May	6,101.08 MWH	30,896.28 MWH	23,340.29 MWH	1,925.61 MWH	$2,891,417.03
June	5,003.24 MWH	28,299.93 MWH	18,707.64 MWH	5,909.87 MWH	$2,743,856.13
July	2,103.55 MWH	11,820.02 MWH	7,456.70 MWH	5,860.28 MWH	$1,701,345.39
August	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	$0.00
September	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	$0.00
October	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	$0.00
November	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	$0.00
December	0.00 MWH	0.00 MWH	0.00 MWH	0.00 MWH	$0.00
	32,454.02 MWH	176,538.63 MWH	124,903.08 MWH	40,627.85 MWH	$17,546,915.68


Little Grass Valley Reservoir
10 Yr Average and Annual Storage
Storage: Acre-Feet
Elefvation: Feet
90,000
80,000
70,000
60,000
50,000
40,000
30,000
5,045
5,040
5,035
5,030
5,025
5,020
5,015
5,010
5,005
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Average Elev
2017 - Wet
2018 - Below Normal
2019 - Moderately Wet
2020 - Dry
2021 - Critical
2022 - Critical
2023 - To Date

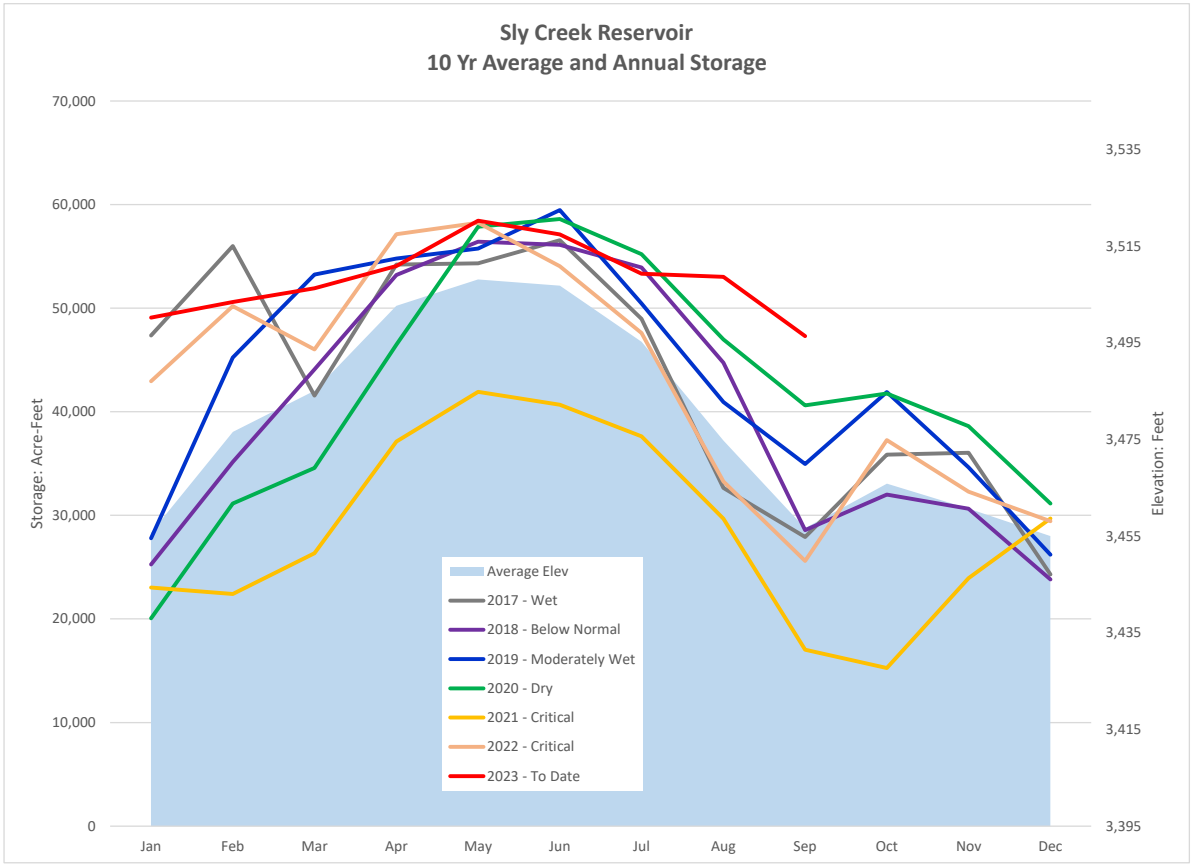
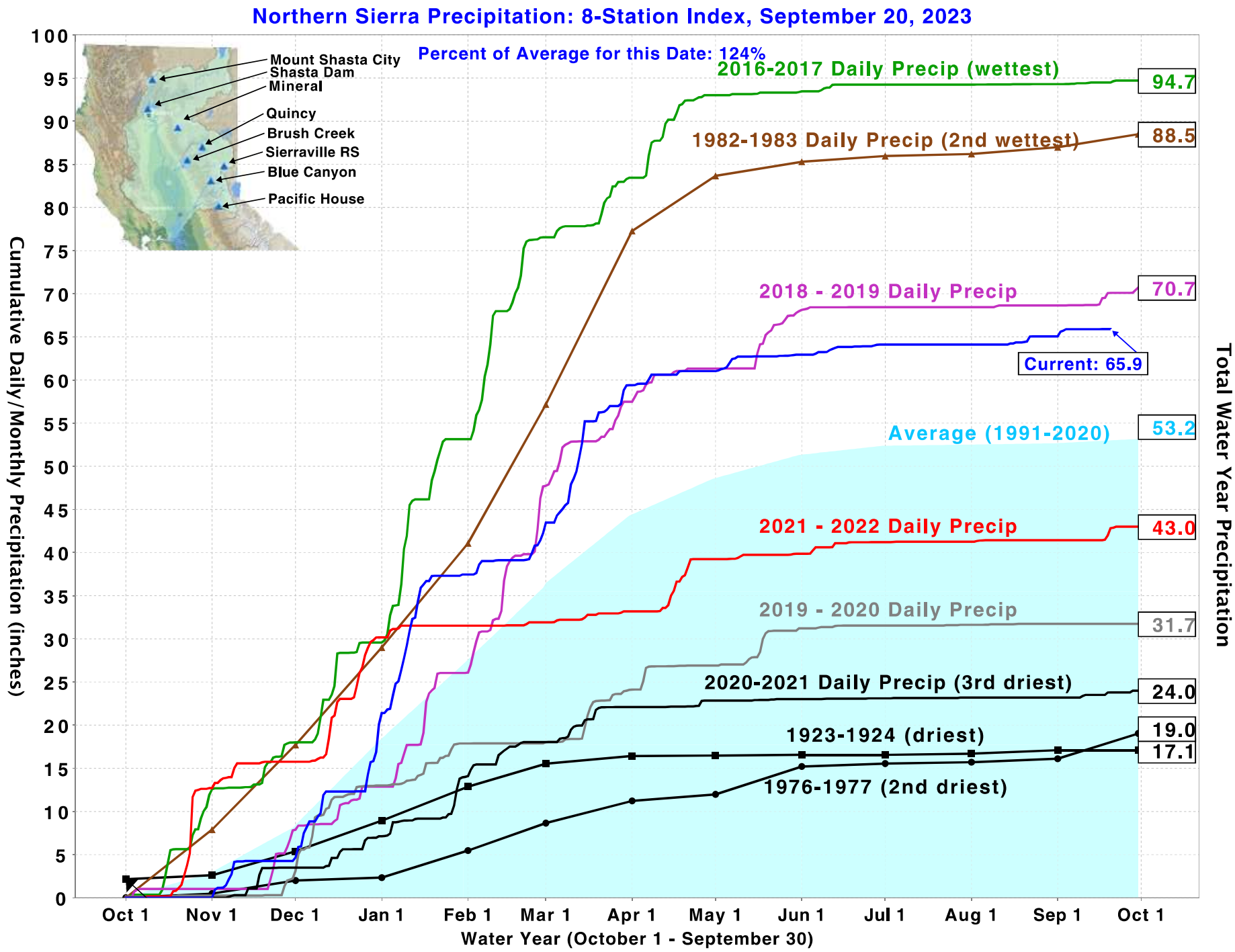

Sly Creek Reservoir
10 Yr Average and Annual Storage
Storage: Acre-Feet
Elevation: Feet
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
3,535
3,515
3,495
3,475
3,455
3,435
3,415
3,395
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Average Elev
2017 - Wet
2018 - Below Normal
2019 - Moderately Wet
2020 - Dry
2021 - Critical
2022 - Critical
2023 - To Date

Table B.

Table C.


Northern Sierra Precipitation: 8-Station Index, September 20, 2023
Percent of Average for this Date: 124%
Mount Shasta City
Shasta Dam
Mineral
Quincy
Brush Creek
Sierraville RS
Blue Canyon
Pacific House
2016-2017 Daily Precip (wettest)
94.7
1982-1983 Daily Precip (2nd wettest)
88.5
2018 - 2019 Daily Precip
70.7
Current: 65.9
Average (1991-2020)
53.2
2021 - 2022 Daily Precip
43.0
2019 - 2020 Daily Precip
31.7
2020-2021 Daily Precip (3rd driest)
24.0
1923-1924 (driest)
19.0
1976-1977 (2nd driest)
17.1
Cumulative Daily/Monthly Precipitation (inches)
Total Water Year Precipitation
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
Oct 1
Nov 1
Dec 1
Jan 1
Feb 1
Mar 1
Apr 1
May 1
Jun 1
Jul 1
Aug 1
Sep 1
Oct 1
Water Year (October 1 - September 30)

SOUTH FEATHER WATER & POWER AGENCY

TO: Board of Directors

FROM: Rath Moseley, General Manager
Jaymie Perrin, Operations Support Manager

DATE: September 21, 2023

RE: General Information (regarding matters not scheduled on the agenda)
9/26/23 Board of Directors Meeting

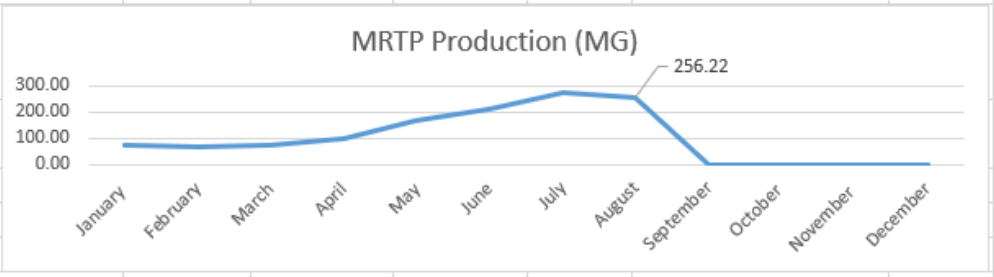
Domestic Water Treatment Operations

Miners Ranch Treatment Plant (MRTP) treated water production = 256.22 million gallons.

Bangor Treatment Plant (BTP) treated water production = 1.177 million gallons.

Red Hawk Ranch Pump Station raw water flow = 2,139,944 gallons.

Miners Ranch Treatment Plant	Aug-23
Total (MG)	256.22
High (MGD)	9.21
Low (MGD)	6.30
Avg. (MGD)	8.27



All bacteriological requirements were good for the MRTP& BTP. Miners Ranch production was 97% of average over the past 5 years. Bangor's production was 98% of average over the past 5 years.

District Wide Water Operations

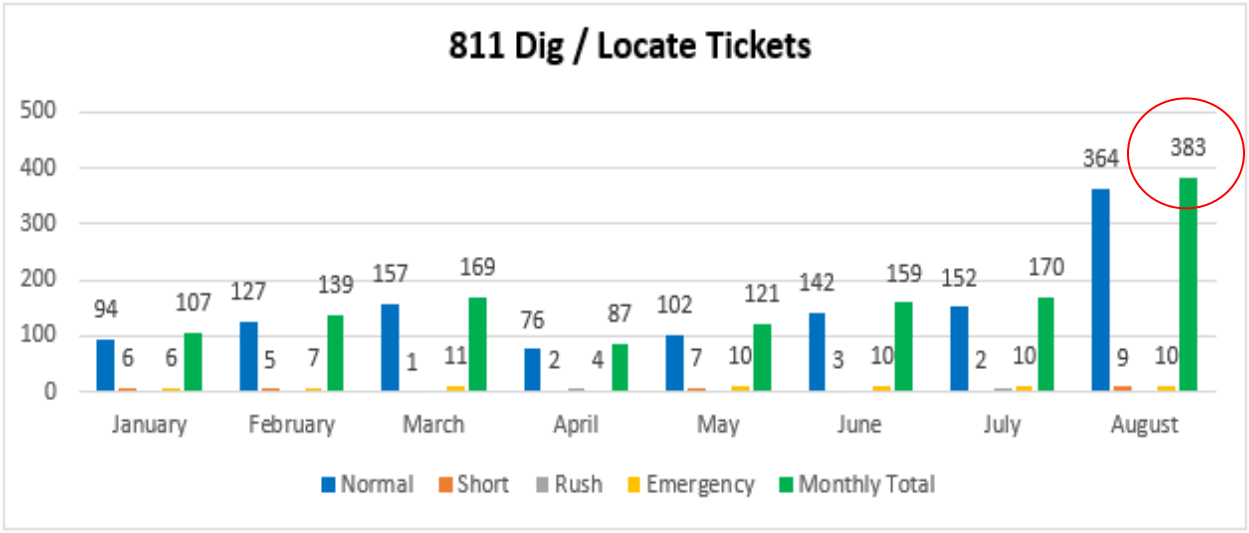
Crews have been busy with pipeline locates and repairing damaged infrastructure by contractors performing underground excavation within the district.

Sep-23	Locate Valves	Asset Maintenance	Ditch Maintenance	Leak Repair	Install Gauging Station	Flow Tests	Repair Service	Form/Pour Concrete	Hydrant Repair	Replace Service	Repair Valve Can
	Grier Ave.	Lake Wyandotte	Palermo Canal	Reservoir Rd.	Kenzie Ravine/Little Grass	District Wide	Custer Lane	Olive Hwy.	Margaret Ln.	Pindale Ct.	Olive Hwy.
			Bethridge	Concow Maidu			Mission Olive			Reservoir Rd.	
	Install Remote Valve		Miller Hill	Chaparral			Palermo Rd.		Replace Hydrant		
	Silverleaf Dr.			Royal Oaks					Oro Bangor/Miners Ranch		

SB 998 Statistics (At time of print)

Billing cycles are based on meter reading routes

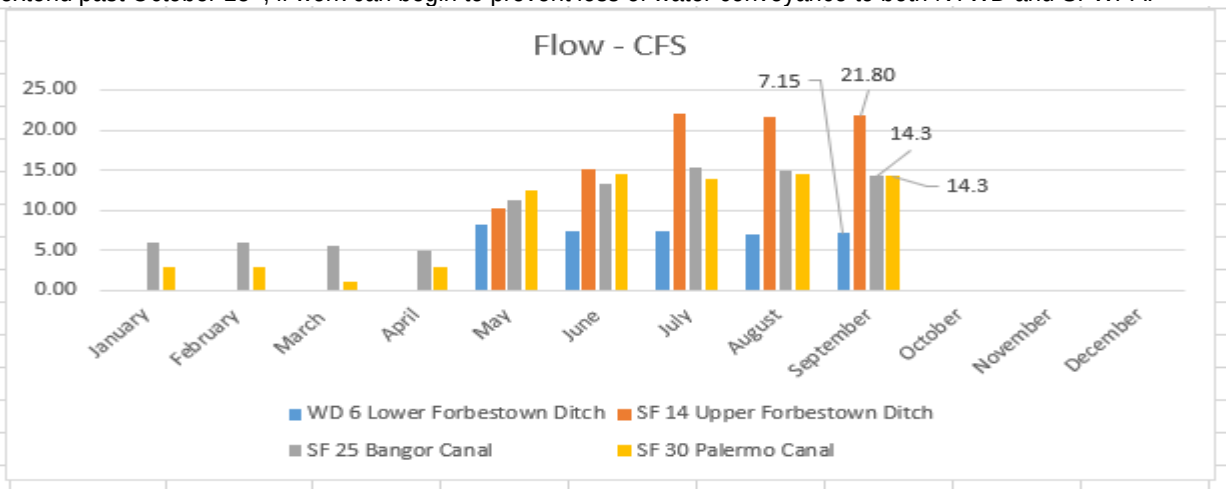
Billing Cycle	Division Impacted	Date of Service Shut-off	# of Shut-offs	Carrying Cost of Shut-offs	Remaining Services Shut-off	Carrying Cost of Remaining Accounts Shut-off
1 & 2	1,2,3,5	08/29/2023	8	$1,380.63	1	$162.47
3 & 4	2,3,4	09/06/2023	9	$1,905.57	2	$354.18
5 - 10	1,2,3,4,5	09/13/2023	13	$3,072.95	2	$585.01



Irrigation Water Operations

All irrigation conveyance systems are in full operation.

The Helfer-Stout Flume on the Upper Forbestown Ditch needs to be replaced prior to the next snow season due to imminent failure of timber, support footings and hillside erosion. NYWD is engaged in an engineering study on flume condition, including means and methods for replacement to a buried, ductal iron siphon. This is the best solution, and would be constructed in parallel to the failing above ground rotted wood structure. SF's irrigation season may not extend past October 15th, if work can begin to prevent loss of water conveyance to both NYWD and SFWPA.



General Updates

- PG&E standby metering: Sites visits and metering discussions continue. PG&E is performing a Retail Standby Assessment – Currently, there is a standby agreement for the auxiliary loads of lighting, circulating fans. However, it does not account for any motoring load at the 230 kV transmission line. PG&E has communicated that a new standby agreement will be prepared and executed on the Transmission line with a reservation capacity predicated on the retail loads plus the historical motoring demand for each powerhouse. When asked by SF, it was communicated that many transmission-connected hydro powerhouses currently do not have a standby agreement and PG&E is in the process of getting all these hydro powerhouses compliant with the tariffs.

- PG&E Remote Grid Initiative Feasibility Study: SF received formal communication that development of a Stand-Alone-Power Supply at the Kelly Ridge Powerhouse location is not feasible primarily due to load and geographical constraints. PG&E will continue to seek other alternatives to reduce Wildfire Risk in this region.

- Palermo Water Consolidation Project: The Butte County Board of Supervisors restated and reiterated their desire to move the Palermo project forward. South Feather may be able to perform at least Phase 1 of domestic expansion. Once funding is secure, a project schedule will be updated and communicated.

SOUTH FEATHER WATER & POWER AGENCY

TO: Public Recipients of Agenda Information

FROM: Rath Moseley, General Manager

DATE: September 19, 2023

RE: Real Property Negotiations, and Anticipated and Existing Litigation
Closed Session Agenda Item for 9/26/23 Board of Directors Meeting

The information provided to directors for this agenda item is not available to the public. The purpose for this item is to give the Board an opportunity to confer with legal counsel about litigation in which the Agency is already involved or is anticipating. The Board is permitted by law (Brown Act) to confidentially discuss information that might prejudice its legal position, to have a confidential and candid discussion about meet-and-confer issues. Such discussions are exempt from the Brown Act's requirement that matters before the Board be discussed in public. Attendance during the closed-session will be limited to directors, together with such support staff and legal counsel as determined necessary by directors for each subject under discussion.