

Memorandum

To: Board of Directors
From: Justin M. Hopkins – General Manager
Juan M. Vega – Assistant General Manager
Darrel Evensen – District Engineer
Date: January 30, 2024
Re: Approval of a PSA with SiteLogiQ, Inc. for Facility Solution Project Feasibility and PG&E NEM 2 Interconnection Application.

Background

The Stockton East Water District's (District) Board of Directors (Board) formed the Electrical Power Alternatives ad-hoc Committee (Committee) to investigate the feasibility, economic viability, and operational viability of several energy-generating options to offset the District's water treatment plant's rising electricity costs incurred via PG&E. The committee met twice, on January 12 and January 17, 2024.

Summary

After staff presentations and Committee discussions, the Committee directed staff to present two options to the full board. One of those options is the possibility of expansion of the District's solar power production. With the widespread use of solar power, the District has a matrix of options available to consider:

- Power generation only or power generation plus battery storage.
- Ground mounted or floating solar arrays.
- District owned project or power purchase agreement (PPA).

The first step in proceeding with any of these options is the completion of Facility Solution Project Feasibility Study and related PG&E interconnection application (application). The District is in the unfortunate situation of a looming deadline for PG&E's Net Energy Metering 2.0 Aggregate program (NEM2A). PG&E will not accept any NEM2A applications after February 14, 2024. In order to submit an application prior to this deadline, the District's selected consultant must be engaged by February 1 to provide the consultant sufficient time to prepare the NEM2A application.

District staff engaged several firms and worked together in investigation of potential solar projects that could be advantageous to the District's energy portfolio. Of these firms, SiteLogiQ expressed the availability and capability of meeting the required deadline for application submission and provided a proposal for the required work in the amount of \$25,000.

Financial Impact

The work to submit the application was not budgeted for Fiscal Year (FY) 2023-2024. The Account *10-5154-0 Professional Services – GMO* had a balance for FY 23-24 of \$175,000, of which \$101,813.67 have been spent to date leaving \$73,186.33 unspent. The proposed work for \$25,000 plus a 15% contingency of \$3,750 would leave \$44,436.33 in account *10-5154-0*. Based on conservative preliminary cash flow

estimates, savings realized with the investigated NEM2A projects range from ~\$20M-\$50M.

Recommendations

District staff recommends the Board authorize the General Manager to approve a Professional Services Agreement with SiteLogiQ a not to exceed cost of \$25,000, plus a 15% contingency of \$3,750, for a total of \$28,750.

Memorandum

To: Board of Directors
From: Justin M. Hopkins – General Manager
Juan M. Vega – Assistant General Manager
Darrel Evensen – District Engineer
Date: January 30, 2024
Re: PSA – NLine Energy Low Head Hydropower Analysis

Background

The Stockton East Water District's (District) Board of Directors (Board) formed the Electrical Power Alternatives ad-hoc Committee (Committee) to investigate the feasibility, economic viability, and operational viability of several energy-generating options to offset the District's water treatment plant's rising electricity costs incurred via PG&E. The committee met twice, on January 12 and January 17, 2024.

Summary

After staff presentations and Committee discussions, the Committee directed staff to present two options to the full board. One of those options is the development of a Low Head Hydropower Project (Project) which was investigated by staff and NLine Energy. The project would install a 350kW crossflow style hydroelectric turbine at the terminus of the Bellota Pipeline near the East Reservoir.

The project is estimated to generate 2,030,000 kWh of power annually, based on a flow range of 25-65 cubic feet per second (CFS) and 80 feet of static head. The project cost is estimated between \$2,700,000 and \$3,500,000, which would be partially offset by the Federal Investment Tax Credit (ITC) and potential grant funding. Once operational, the facility is projected to reduce PG&E E19 rate costs by \$284,000 annually, plus demand savings not currently accounted for.

The facility is estimated to require \$10,000 annually for operation and maintenance costs, with a major maintenance milestone occurring after 50 years of operation. Should the District move forward with preliminary analysis, a financial proforma for the proposed project would be developed. The preliminary analysis will cost \$40,000, per the Nline Energy proposal, and require three months to complete.

Financial Impact

The preliminary analysis for the Project was not budgeted for Fiscal Year (FY) 2023-2024. The Account *10-5154-0 Professional Services – GMO* had a balance for FY 23-24 of \$175,000, of which \$101,813.67 have been spent to date leaving \$73,186.33 unspent. A separate board memo potentially allocated an additional \$28,750 for another energy project leaving \$44,436.33 unspent. The proposed analysis would cost \$40,000 plus a 10% contingency of \$4,000 and would leave \$436.33 in account *10-5154-0*.

Recommendations

District staff recommends the Board authorize the General Manager to approve a Professional Services Agreement with NLine Energy for a not to exceed cost of \$40,000, plus a 10% contingency of \$4,000, for a total of \$44,000.

Weekly Water Report	As of: Jan 23, 2024	As of: Jan 30, 2024	
New Hogan (NHG) TOC	164,336	171,626*	AF
Storage:	170,721*	172,497*	AF
Net Storage Change:	+3,045	+1,776	AF
Inflow:	1,211*	141*	CFS
Release:	151*	130*	CFS
New Melones (NML) Allocation	75,000	75,000	AF
Storage:	1,987,204*	1,982,470*	AF
Net Storage change:	+4,404	-4,734	AF
Inflow:	1,006**	813**	CFS
Release:	711**	1,800**	CFS
Source: CDEC Daily Reports			

Goodwin Diversion (GDW)			
Inflow (Tulloch Dam):	1,076	1,709	CFS
Release to Stanislaus River (S-98):	1,020	1,501	CFS
Release to OID (JT Main):	0	0	CFS
Release to SSJID (SO Main):	0	0	CFS
Release to SEWD:	<u>0</u>	<u>0</u>	CFS
Total Release	1,020	1,501	CFS
Source: Tri-Dam Operations Daily Report			
Farmington Dam (FRM)			
Diverted to SEWD:	0	0	CFS
Diverted to CSJWCD:	0	0	CFS

Surface Water Used			
Irrigators on New Hogan:	0	0	
Irrigators on New Melones:	0	0	
Out-Of-District Irrigators:	0	0	
DJWWTP Production:	0	0	MGD
North Stockton:	0	0	MGD
South Stockton:	0	0	MGD
Cal Water:	0	0	MGD
City of Stockton DWSP Production:	0	0	MGD

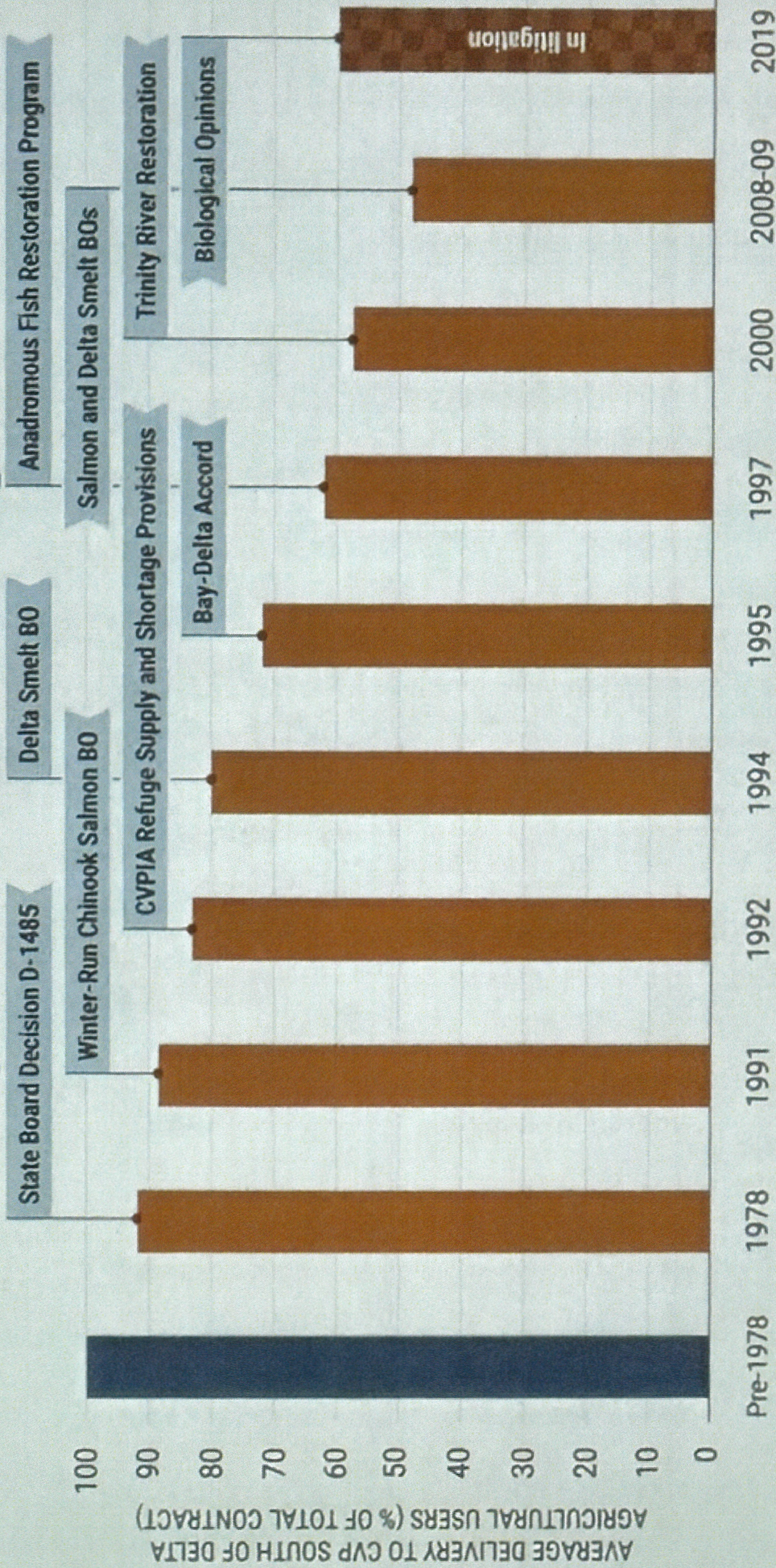
District Ground Water Extraction			
74-01	0	0	GPM
74-02	0	0	GPM
North	0	0	GPM
South	0	0	GPM
Extraction Well # 1	<u>0</u>	0	GPM
Total Well Water Extraction	0	0	GPM
Total Ground Water Production	0	0	MGD

Note: **The data reported here is available as of 01/28/24

***The data reported here is available as of 01/29/24**

All other flow data reported here is preliminary, as of 9:00 a.m. on 01/30/24

The Squeeze of Regulation



Sources: Pre-1978, CVP Water Delivery Records; 1978-2000, San Luis & Delta-Mendota Water Authority, extracted from various California Department of Water Resources (DWR) and U.S. Department of the Interior, Bureau of Reclamation (Reclamation) CalSim-II benchmark studies; 2008/2009, Reclamation & DWR CalSim-II Benchmark BO Study; 2020, Reclamation ES on the Renitiation of Consultation on the Long-Term Operation of the CVP and SWP.

