

# Staff Report

for the Board of Directors Meeting of July 27, 2016

**TO:** Board of Directors

**FROM:** Gary King, Engineering Manager  
Adrian Schneider, Senior Engineer

**DATE:** July 20, 2016

**SUBJECT:** Loma Rica Hydroelectric Facility – Task Order 2

**ENGINEERING**

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**RECOMMENDATION:**

Approve Task Order 2 with Brown and Caldwell in the amount of \$50,519 for Phase II (Task 2b) of the Loma Rica Hydroelectric Project.

**BACKGROUND:**

On December 6, 2013, Brown & Caldwell provided a proposal for the Loma Rica Hydroelectric Project for a total amount of \$616,389. The scope of work was separated into two phases (Phase I and II). On February 26, 2014 the Board approved Phase I (Tasks 1, 2a, and 4) of the project for \$245,297. Phase I work included tasks that led up to the determination of the viability of the project (paypack period). Phase II was to be approved by the Board at a later date pending the outcome of Phase I.

Task Order 1 was amended on August 3, 2015 by an increase of \$62,574. It included a new preliminary design due to a change in the facility location. The location change was initiated due to Nevada County's announcement that the airport runway may be extended towards the project location, and therefore may impede on future flight operations.

In addition to the facility location change, FAA approval is also required prior to determining project viability. Staff recommends approving Task Order 2 (Task 2b) in the amount of \$50,519 to include FAA determinations. The remainder of Phase II tasks (3, 5, 6, and 7) to be approved by the Board at a later date.

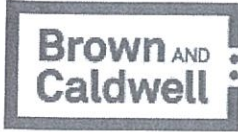
**BUDGETARY IMPACT:**

Funds for the Loma Rica Hydroelectric Facility for this Task Order 2 are available in the 2016 budget.

**Attachments:** Brown & Caldwell's Proposal (partial) – 12/6/2013  
Task Order 2 (Pending Board Approval)

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Rancho Cordova, California 95670

T: 916.444.0123  
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December 6, 2013

Mr. Adrian Schneider  
Nevada Irrigation District  
1036 W. Main Street  
Grass Valley, California 95945-5424

071067-013

Subject: Request for Cost Proposal – Loma Rica Hydroelectric Station

Dear Mr. Schneider:

Brown and Caldwell is pleased to submit this cost proposal and estimate of staff labor hours for the Loma Rica Hydroelectric Station Project. The scope of work follows the requirements and subtasks identified in our original proposal from May, 2010, with the following modifications:

- Estimates for design effort have been based on the Preliminary Analysis completed by NLine Energy that assumes a Pelton type turbine rather than a Francis or Turgo type as originally assumed.
- Changes in the process for obtaining power purchase agreement with PG&E and establishing an appropriate tariff
- Replacement of subconsultants Henwood Associates and Capitol Utility Specialists with NLine Energy
- Updating of labor rates from 2010 to 2013.

The enclosed Table 1 identifies our proposed total labor hours, labor costs, other direct costs (ODC), and total price. Hourly rates (direct labor) for the individuals and job classifications expected to work on this project are shown in the enclosed spreadsheet. These billing rates will be subject to an annual three percent escalation rate, which is included in the total price.

Based on our discussions on November 27<sup>th</sup>, we understand that the project will likely require two distinct phases; Phase I will provide sufficient information to complete a supplemental review of the PG&E system to determine identify any addition costs that will be required to upgrade the existing power grid as a requirement for obtaining an interconnection agreement, and Phase II will include all subsequent design activities necessary to bid and construct the project. We have rearranged the tasks so that each Phase I can be completed with the execution of Tasks 1, 2a, and 4 for cost of \$245,297. Phase II would then include Tasks 2b, 3, 5, 6, and 7 and could be executed for a cost of \$371,092 if the project is determined to be economically viable after completion of Phase I.

We have included a conceptual schedule based on a project start date of January 6<sup>th</sup>, 2014. The schedule assumes that the project would be executed in a single phase and that several tasks would be completed in parallel. Execution of the project in two distinct phases as described in the paragraph above will require an increase the overall

Mr. Adrian Schneider  
Nevada Irrigation District  
December 6, 2013  
Page 2

duration of the project by six months as Tasks 2b, 3, and 5 would not commence Task 4 was completed.

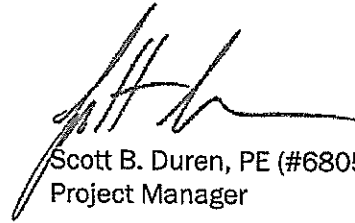
Please contact Scott Duren at 916.853.5349 if you have any questions, or require additional information.

Sincerely,

BROWN AND CALDWELL



J. David Zuber, PG  
Vice President



Scott B. Duren, PE (#68058)  
Project Manager

SBD:ds

Attachments (2)

1. Project Understanding and Approach
2. Table 1. Proposed Budget

**Deliverables:**

- Accurate record drawings for the Loma Rica WTP will be provided at the kickoff meeting
- Kickoff meeting minutes
- Draft and final PDR
- Response to comments and PDR review meeting minutes

**Task 2**

NLine will submit and obtain all permits required for the construction and operation of the hydroelectric station. Permits are divided into two subtasks; Federal Energy Regulatory Committee (FERC) permitting, and general permitting.

**2a. — FERC Application.** It appears that the project will likely qualify for a Conduit Exemption to the FERC licensing process. NLine will prepare the application for the FERC Conduit Exemption. Prior to submittal of the FERC application, NLine will confirm that the existing EIR document from the BCP Project is valid for the proposed hydroelectric station.

**Task 2a Assumptions:**

- NID will provide access to staff members responsible for state and federal regulatory permitting
- PG&E is the utility that provides retail power service in the location of the two options being evaluated
- The existing CEQA EIR that contemplates a 1,500 kW hydrostation remains valid for this project. If not, then additional CEQA applications will be necessary.

**Task 2a Deliverables:**

- Preliminary FERC application, if necessary
- Complete permit for NID review

**2b.1 — General Permits.** NLine will also assist NID in obtaining the following permits:

- FERC Qualifying Facility (QF) certification. NLine Energy will advise NID staff on the proper self-certification documentation that is required to complete a QF designation application.
- State Water Resources Control Board (SWRCB). NLine Energy will advise NID staff as the proper language necessary to amend current water rights to contemplate hydropower at the Loma Rica hydrostation.
- Western Regional Energy Generation Information System (WREGIS). NLine will complete the necessary application forms and advise NID staff as to the process to register for an account with WREGIS for the purpose of recording Renewable Energy Credits (REC) for the site.
- California Independent System Operation (CAISO) – CAISO may require additional metering and/or telemetry at the site as well as registration into various CAISO databases given the size of the project.
- Energy Information Administration (EIA) – NLine will advise NID staff as to the required annual reports that may be required by the EIA.
- California Energy Commission (CEC) Pre-certification. NLine will prepare the application, which will require a copy of NID's permit or license and application from the State Water Resources Control Board, confirmation of ownership of the facility, a source water description map, proof of water rights, FERC Qualifying Facility designation and hydrologic data.
- CEC Certification. NLine will prepare an application that includes the FERC permit and application.
- Federal Aviation Authority (FAA). NLine will coordinate with the Nevada County Airpark to ensure that any FAA requirements for height and flight path encumbrances are understood and accounted for.

Nevada Irrigation District (CA) -- Loma Rica Hydroelectric Station

	132	20	2	0	32	14	60	18	0	128	20	2	4	16	448	74,961	0	250	55,000	55,000	55,000	55,250	58,025	132,986	
1 Preliminary Design Report	\$187,67	\$96,03	\$217,97	\$161,44	\$161,83	\$233,57	\$122,86	\$89,08	\$178,23	\$146,26	\$245,92	\$234,53	\$192,56	\$214,80											
2a FERC Permitting	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	1,169	0	0	0	34,000	34,000	34,000	35,700	36,869	
2b General Permitting	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	1,169	0	0	0	47,000	47,000	47,000	49,350	50,519	
3 Power Unit Purchase	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	1,169	0	0	0	35,000	35,000	35,000	36,750	37,919	
4 Interconnection Agreement	8	4	0	0	0	0	0	0	0	0	0	0	0	0	12	1,942	0	0	0	70,000	70,000	70,000	73,500	75,442	
5 Detailed Design	160	24	16	0	180	60	290	40	32	160	150	16	16	40	1,184	205,354	0	500	500	35,000	35,000	35,500	37,300	242,654	
6 Construction Bidding	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,000	0	10,000	0	0	10,000	10,000	10,000	
7 Construction Services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30,000	0	30,000	0	0	30,000	30,000	30,000	
<b>GRAND TOTAL</b>	<b>312</b>	<b>60</b>	<b>18</b>	<b>0</b>	<b>212</b>	<b>74</b>	<b>350</b>	<b>58</b>	<b>32</b>	<b>288</b>	<b>170</b>	<b>18</b>	<b>20</b>	<b>56</b>	<b>1,668</b>	<b>285,764</b>	<b>40,000</b>	<b>750</b>	<b>40,750</b>	<b>276,000</b>	<b>276,000</b>	<b>316,750</b>	<b>330,625</b>	<b>616,389</b>	

12/6/13 PROPOSAL

# 6947

**CONSULTING ENGINEERING SERVICES**

**Loma Rica Hydroelectric Project**

**TASK ORDER NO. 2**

The District hereby requests and authorizes the CONSULTANT to perform the following services:

**SCOPE OF SERVICES:**

Conduct Task 2b related to Phase II of the project as outlined in the Proposal dated December 6, 2013. Only this task related to Phase II work shall be conducted, specifically for the FAA application to determine if anything from the FAA will preclude the project going forward. Additional items under Task 2b shall be only approved for work upon District's written approval.

**TIME FOR COMPLETION:**

July 22, 2016

**SPECIAL CONDITIONS: NA**


**FEE FOR SERVICE AND METHOD FOR DETERMINING FEE:**

Time and materials per attached Schedule of Billing Rates (Exhibit B) not to exceed amounts set forth in CONSULTANT's proposal described under scope of services, for the amount of \$50,519.

Services covered by this task order shall be performed, and payment for such services shall be made, all in accordance with that AGREEMENT between DISTRICT and CONSULTANT dated ~~MARCH 24, 2016~~ **APRIL 4, 2014**.

Approved for DISTRICT

Approved for CONSULTANT

By   
Remleh Scherzinger, General Manager  
Nevada Irrigation District

By   
Brown & Caldwell

Date 5/31/14

Date 5/23/2016