



Commission Staff Report - *DRAFT*

Date: June 2, 2017

COMMISSION MEETING DATE: June 29, 2017

SUBJECT: Delegate to the General Manager authority to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of \$1,000,000 for repair of the Collierville Unit 2 Generator and related facilities at the NCPA Hydroelectric Project.

AGENDA CATEGORY: Discussion/Action

FROM:	Ken Speer	METHOD OF SELECTION:
	Assistant General Manager	N/A
Division:	Generation Services	
Department:	Hydroelectric	

IMPACTED MEMBERS:		
All Members	<input type="checkbox"/>	City of Lodi <input checked="" type="checkbox"/>
Alameda Municipal Power	<input checked="" type="checkbox"/>	City of Lompoc <input checked="" type="checkbox"/>
Bay Area Rapid Transit	<input type="checkbox"/>	City of Palo Alto <input checked="" type="checkbox"/>
City of Biggs	<input type="checkbox"/>	City of Redding <input type="checkbox"/>
City of Gridley	<input type="checkbox"/>	City of Roseville <input checked="" type="checkbox"/>
City of Healdsburg	<input checked="" type="checkbox"/>	City of Santa Clara <input checked="" type="checkbox"/>
		City of Ukiah <input checked="" type="checkbox"/>
		Plumas-Sierra REC <input checked="" type="checkbox"/>
		Port of Oakland <input type="checkbox"/>
		Truckee Donner PUD <input type="checkbox"/>
		Other <input type="checkbox"/>
		<i>If other, please specify.</i>

RECOMMENDATION:

Authorize the General Manager to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of \$1,000,000 for repair of the Collierville Unit 2 Generator and related facilities at the NCPA Hydroelectric Project.

BACKGROUND:

The Collierville Powerhouse, part of the North Fork Stanislaus River Hydroelectric Project, consists of two (2) 126.5 MW pelton turbine generators. On May 29th, 2017 Collierville Unit 2 tripped off due to a ground fault detected in the generator. Subsequent testing confirmed that there was a ground fault in the generator stator, and personnel and resources were immediately deployed to try to locate and repair the damage. Collierville Unit 2 will be out of service until repairs are completed. Collierville Unit 1 remains in service.

Depending on the exact location and extent of the fault, repair could be relatively easy, fast, and low cost, or could require complete disassembly of the generating unit, pulling the stator, replacing damaged robell bars, testing and reinstalling the stator, and rebalancing the unit, which would likely take at least three (3) weeks of sustained, around-the-clock effort. Emergency repairs may be put in place to return the unit to service as quickly as possible, with a more extensive outage and repairs planned for the future.

The Collierville generators are approximately 28 years old, and even prior to this ground fault were starting to show signs of minor deterioration as documented by routine partial discharge testing and as evidenced by visual burn damage which is inspected and repaired as-needed during annual outages. Generator winding insulation is exposed to many aging mechanisms which shorten its life, including electrical and mechanical stresses during normal operation. When the stator winding insulation fails, high voltage can arc to the surrounding framework, and protective relaying shuts down the generating unit. Planned, scheduled rewinds generally provide the most cost-effective means to maintain the reliability of older generators. At the request of the Hydro participants, Capital Development Reserve funds are being collected for eventual rewinds of both Collierville units.

ENVIRONMENTAL ANALYSIS:

CEQA Guidelines section 15301 states that a project is categorically exempt from CEQA review when the project "consists of the operation, repair, maintenance ... or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligivle or no expansion of use beyond that existing at the tiem of the lead agency's determination." There is no reasonable possibility that repairing the Collierville Unit 2 generator will result in a significant impact on the environment. A Notice of Exemption for this type of work was approved by the NCPA Commission and filed with Calaveras County on March 27, 2014.

FISCAL IMPACT:

In recent months, both Collierville generators had been operating at near full capacity. Both New Spicer Meadow Reservoir and McKays Point Diversion Reservoir are currently full and spilling, and high flow conditions are expected to persist for at least the next month due the 2017 spring snowpack and subsequent runoff being well above normal. The lost opportunity cost associated with having Collierville Unit 2 out of service is estimated to be more than 2,600 MWh / day, representing approximately \$60,000 to \$100,000+ / day in lost revenue depending on power prices. Depending on the magnitude of the needed repairs, Collierville Unit 2 could be out of service for more than 4 weeks, with lost revenues in excess of \$2,500,000.

At this time, total repair costs are estimated to not exceed \$1,000,000. Adequate funding is projected to be available in the approved FY2017 Hydroelectric budget and Hydro Maintenance Reserve. A complete generator rewind is not anticipated to be needed or advisable at this time, however, in the unlikely event that additional funds are needed, approximately \$5M has been collected specifically for Collierville generator rewinds as part of ongoing Capital Development Reserve collections.

COMMITTEE REVIEW:

Pending.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments: (1)
• Resolution

RESOLUTION XX-XX

**RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY
DELEGATING TO THE GENERAL MANAGER AUTHORITY TO ENTER INTO ONE OR
MORE AGREEMENTS AND TO ISSUE PURCHASE ORDERS NOT-TO-EXCEED \$1,000,000
FOR REPAIR OF THE COLLIERVILLE UNIT 2 GENERATOR AND RELATED FACILITIES AT
THE NCPA HYDROELECTRIC PROJECT**

(reference Staff Report #XXX:XX)

WHEREAS, the Northern California Power Agency (NCPA) operates and maintains the Collierville Powerhouse and related facilities on behalf of the project participants in the North Fork Stanislaus River Hydroelectric Development Project; and

WHEREAS, the Hydroelectric Facility's Collierville Powerhouse Unit 2 Generator Reservoir sustained damage on May 29th; and

WHEREAS, Collierville Unit 2 is currently inoperable, and requires immediate repair to have the ability to generate hydropower with available water supplies; and

WHEREAS, this Project is exempt from CEQA under Regulation 15301 and a Notice of Exemption was filed with Calaveras County on march 27, 2014;

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager to enter into one or more agreements and to issue purchase orders, with a total not-to-exceed amount of \$1,000,000 for repair of the Collierville Unit 2 Generator and related facilities at the NCPA Hydroelectric Project.

PASSED, ADOPTED and APPROVED this _____ day of _____, 2017 by the following vote on roll call:

	<u>Vote</u>	<u>Abstained</u>	<u>Absent</u>
Alameda	_____	_____	_____
BART	_____	_____	_____
Biggs	_____	_____	_____
Gridley	_____	_____	_____
Healdsburg	_____	_____	_____
Lodi	_____	_____	_____
Lompoc	_____	_____	_____
Palo Alto	_____	_____	_____
Port of Oakland	_____	_____	_____
Redding	_____	_____	_____
Roseville	_____	_____	_____
Santa Clara	_____	_____	_____
Truckee Donner	_____	_____	_____
Ukiah	_____	_____	_____
Plumas-Sierra	_____	_____	_____

BOB LINGL
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY