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# Addendum to Commission Staff Report

AGENDA ITEM NO.: 21

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**COMMISSION MEETING DATE:** May 23, 2023

**TO:** NCPA Commission


**SUBJECT:** REVISED – NCPA Geothermal Plant 1, Unit 1 Steam Strainer Damage Project

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## Addendum

Commission Staff Report 167:23, which is attached to this Addendum, is revised to reflect an updated proposal for the repair of Geothermal Unit 1. The cost for the scope of work increased from \$406,980 to \$1,332,850. The contingency funds have been reduced accordingly. The total project cost remains at not to exceed \$2,500,000.

Respectfully submitted,

  
RANDY S. HOWARD  
General Manager

Prepared by: JEREMY M. LAWSON

  
For Michael Debortoli  
MICHAEL DEBORTOLI  
Assistant General Manager  
Generation Services

## Attachment

- Revised Staff Report 167:23



# Commission Staff Report – *REVISED*

**COMMISSION MEETING DATE:** May 25, 2023

**SUBJECT:** NCPA Geothermal Plant 1, Unit 1 Steam Strainer Damage Project; Applicable to the following: NCPA Geothermal Facility

**AGENDA CATEGORY:** Discussion/Action

<b>FROM:</b>	Michael DeBortoli <i>Jaura</i> Assistant General Manager	<b>METHOD OF SELECTION:</b> <i>Competitive Pricing Process</i>
Division:	Generation Services	<i>If other, please describe:</i>
Department:	Geothermal	

<b>IMPACTED MEMBERS:</b>		
All Members	<input type="checkbox"/>	City of Lodi <input checked="" type="checkbox"/>
Alameda Municipal Power	<input checked="" type="checkbox"/>	City of Shasta Lake <input type="checkbox"/>
San Francisco Bay Area Rapid Transit	<input type="checkbox"/>	City of Lompoc <input checked="" type="checkbox"/>
City of Biggs	<input checked="" type="checkbox"/>	City of Palo Alto <input type="checkbox"/>
City of Gridley	<input checked="" type="checkbox"/>	City of Redding <input type="checkbox"/>
City of Healdsburg	<input checked="" type="checkbox"/>	City of Roseville <input checked="" type="checkbox"/>
		City of Santa Clara <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 checked="" type="checkbox"/>
	<i>If other, please specify</i>	Turlock
		_____
		_____

**RECOMMENDATION:**

Approve Resolution 23-49 authorizing the Geothermal Plant 1, Unit 1 Steam Strainer Damage Project and delegating authority to the General Manager or his designee to award bids, execute agreements, and to issue purchase orders for the project in accordance with NCPA purchasing policies and procedures, without further approval by the Commission, for a total not to exceed amount of \$2,500,000, to be funded through a Geothermal FY2023 budget augmentation.

**BACKGROUND:**

On March 1, 2023, NCPA’s Geothermal Plant 1, Unit 1 was taken offline for routine seasonal Stretford maintenance. During the course of inspections conducted by NCPA staff, steam strainer failures were found which caused strainer material to enter the steam turbine. Staff was unable to remove the upper casing to determine the extent of the damage. NCPA hired Reliable Turbine Services, LLC (RTS) to perform a Steam Path Inspection. RTS removed the upper turbine case and found screen material throughout the turbine rotor and casing diaphragms. Upon initial visual inspection, minimal obvious damage was seen.

On May 22, 2023, RTS submitted an updated proposal based on the results of the completed Steam Path Inspection. RTS is recommending to pull, clean, and conduct nondestructive testing on the turbine rotor and diaphragms, and to remove and inspect the valves. After the turbine rotor, diaphragms, and upper turbine case are examined and any necessary repairs completed, the equipment will be reassembled and returned to service. It is expected that this work will be completed by June 30, 2023.

**FISCAL IMPACT:**

The total cost of the project is not to exceed \$2,500,000. A breakdown of the project scope and associated costs is shown below:

<b>Scope of Work</b>	<b>Cost</b>
Steam Path Inspection	\$93,685.00
RTS Proposal dated May 22, 2023	\$1,332,850.00
Contingency Funds	\$1,073,465.00
<b>Total Project Cost</b>	<b>\$2,500,000.00</b>

It should be noted that the large contingency is to allow for unexpected findings. NCPA will not collect the contingency portion of the augmentation unless the work scope dictates the need.

A FY2023 budget augmentation in the amount of \$2,500,000 is requested to fund this project. If approved, the additional cost of \$2,500,000 would require funding from the Geothermal member agencies in proportion to their individual shares in the Plant 1 project shown below.

**Impact of Plant 1 Unit 1  
Steam Strainer Damage  
Budget Augmentation to  
Participants**

<b>Participant</b>	<b>Total Cost</b>
	<b>2,500,000</b>
<b>Alameda</b>	<b>422,062</b>
<b>Biggs</b>	<b>5,675</b>
<b>Gridley</b>	<b>8,400</b>
<b>Healdsburg</b>	<b>91,850</b>
<b>Lodi</b>	<b>257,000</b>
<b>Lompoc</b>	<b>92,025</b>
<b>Plumas</b>	
<b>Sierra</b>	<b>17,525</b>
<b>Roseville</b>	<b>197,075</b>
<b>Santa Clara</b>	<b>1,109,762</b>
<b>Ukiah</b>	<b>140,363</b>
<b>TID</b>	<b>158,263</b>
	<b>2,500,000</b>

NCPA will issue a special invoice for \$1,332,850 on May 26, 2023 and payable by June 15, 2023. Project Participants can elect to provide a letter of direction using their GOR funds or send funds from their bank account. If it is recommended to overhaul the unit, NCPA will issue a subsequent special invoice for up to \$1,073,465 at a later date, as needed to repair the unit.

NCPA staff will discuss with its insurance carrier a potential claim resulting from the steam strainer damage.

**SELECTION PROCESS:**

On April 10, 2023, NCPA issued a Request for Proposals for the Geothermal Plant 1, Unit 1 Steam Path Inspection Project. Three potential bidders were contacted. One bidder declined and two bidders responded with proposals. RTS was selected based on cost and availability. If the project is approved, RTS will be tasked with completing the inspection and implementing the repairs necessary to restore the plant to operation. On May 22, 2023, RTS submitted an updated proposal based on the results of the Steam Path Inspection for recommended repairs to the turbine rotor, diaphragms, and upper turbine case.

**ENVIRONMENTAL ANALYSIS:**

These activities are categorically exempt under Class 1, 2, 3, 4, and 11 from the provisions of the California Environmental Quality Act pursuant to Sections 15301 (b), 15302 (c), 15303, 15304 and 15311 of the CEQA Guidelines. A Notice of Exemption was approved by the NCPA

Commission on September 27, 2013 for this class of work and was filed in Sonoma County. No environmental review is necessary.

**COMMITTEE REVIEW:**

On May 18, 2023, the Facilities Committee reviewed and endorsed the recommendation above for Commission approval.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Randy S. Howard".

RANDY S. HOWARD  
General Manager

Attachments:

- Resolution 23-49