



Commission Staff Report

Date: January 24, 2020

COMMISSION MEETING DATE: January 27, 2020

SUBJECT: Lodi Energy Center Turbine Failure

AGENDA CATEGORY: Discussion/Action

FROM:	Joel Ledesma	METHOD OF SELECTION:
	Assistant General Manager	<i>Other</i>
Division:	Generation Services	<i>NCPA conducted a public works bid for the equipment purchase for the Lodi Energy Center and selected Siemens as the supplier. As part of the initial public works bid, NCPA requested the bidders include a maintenance program and long-term equipment warranty. Consistent with the Long Term Maintenance Agreement (LTMA) and associated equipment warranty, Siemens will perform the combustion turbine repair.</i>
Department:	Combustion Turbines	

IMPACTED MEMBERS:		
All Members	<input type="checkbox"/>	City of Lodi <input checked="" type="checkbox"/>
Alameda Municipal Power	<input type="checkbox"/>	City of Lompoc <input checked="" type="checkbox"/>
San Francisco Bay Area Rapid Transit	<input checked="" type="checkbox"/>	City of Palo Alto <input type="checkbox"/>
City of Biggs	<input checked="" type="checkbox"/>	City of Redding <input type="checkbox"/>
City of Gridley	<input checked="" type="checkbox"/>	City of Roseville <input type="checkbox"/>
City of Healdsburg	<input checked="" type="checkbox"/>	City of Santa Clara <input checked="" type="checkbox"/>
		City of Shasta Lake <input 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>	City of Azusa, CDWR, Modesto Irrigation, and
		<hr/> PWRPA <hr/>

RECOMMENDATION:

Staff recommends that the Northern California Power Agency (NCPA) Commission approve Resolution 20-12 authorizing the NCPA General Manager to execute agreements and issue Purchase Orders to carry out the work approved by the Lodi Energy Center Project Participant Committee in an amount not-to-exceed \$3,000,000 for disassembly/investigation into the cause of the Lodi Energy Center (LEC) forced outage on January 16, 2020, and to perform the associated work needed on the combustion turbine to better understand the damage and evaluate the options to repair and restore the unit to operation.

BACKGROUND:

On January 16, 2020, at 3:54 am LEC experienced a sudden failure on the combustion turbine. Prior to this failure, LEC had been operating steady state at 260 MW for about 2 hours, and had been online for about 2 days. From the first sign of problems to the trip was about 2 seconds.

LEC is under a long term maintenance contract (the LTMA) with Siemens Energy, Inc. (Siemens) for work on the machine. The LTMA contains warranty provisions that may apply, depending upon the nature and part that failed. The warranty coverage is limited to \$1,000,000 per incident. In addition, the language in the agreement requires that Siemens perform the work. If the work is subsequently discovered to be a valid warranty claim, Siemens will credit the cost back to NCPA. Upon discovery of the failure, NCPA contacted Siemens and issued purchase orders within its authority to begin disassembly work to start the investigation as to the cause of failure.

In addition, NCPA filed a claim with the insurance carrier regarding the property damage loss. The deductible for insurance is \$500,000. The insurance carrier has not yet accepted the liability for the property damage, but they have mobilized their consultants to investigate the incident. NCPA will work with the insurance carrier to support the claim and establish a payment structure.

In order for work to progress without delay, NCPA needs to be able to authorize contractors to mobilize and continue work. This needs to happen before determination of warranty coverage and before insurance acceptance of the claim. NCPA has established an estimated cost for disassembly and evaluation of the turbine. Until it is understood exactly what components are damaged and what components can be refurbished, it is impossible to determine a cost for reassembly of the machine. This staff report and authorization being sought is only for the disassembly portion of this work.

FISCAL IMPACT:

The turbine failure was not anticipated in the budget. The disassembly/investigation of the turbine costs total an estimated \$3,000,000. A summary of the disassembly costs are in the table below. Initially, NCPA is recommending using funds from LEC's Maintenance Reserve account to fund this initial work. NCPA is working with Siemens through its LTMA and will file a warranty claim depending on the outcome of the investigation. The LTMA provides coverage for \$1,000,000 per event, \$2,000,000 annual limits, which are available under the contract limitations of the Agreement.

Any funds reimbursed by the insurance company will be used to replenish funds taken from the Maintenance Reserve account. Any shortfalls will need a budget augmentation to replenish the Maintenance Reserve account. NCPA will keep the LEC Project Participant Committee advised as to the status.

Equipment Rentals, Cranes	\$361,621.44
Inspections / Security / Engineer	\$100,000.00
Secondary Work (scaffold, insulation)	\$575,000.00
Primary Work (turbine)	\$1,500,000.00
Contingency (~20%)	\$463,378.56
TOTAL	\$3,000,000.00

SELECTION PROCESS:

During the initial procurement of LEC equipment, a Public Works bidding process was followed. Siemens won the bid and NCPA awarded the contract for the LEC equipment to Siemens as a result of that bid. Under the terms of the contract, Siemens is required to perform the work on the machine in order to preserve the warranty.


ENVIRONMENTAL ANALYSIS:

These activities are categorically exempt under Class 1 and 2 from the provisions of the California Environmental Quality Act pursuant to Section 15301 (b) and 15302 (c) 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 San Joaquin County.

COMMITTEE REVIEW

The recommendation was reviewed by the Lodi Energy Center Project Participant Committee on January 24, 2020. The Committee approved the expenditure of funds of not-to-exceed \$3,000,000 for disassembly/investigation and recommends that the Commission authorize the General Manager to carry out the approval.

Respectfully submitted,



RANDY S. HOWARD
General Manager

Attachments: (1)

- Resolution 20-12

RESOLUTION 20-12

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY AUTHORIZING THE GENERAL MANAGER TO EXECUTE AGREEMENTS AND ISSUE PURCHASE ORDERS TO CARRY OUT THE WORK APPROVED BY THE LODI ENERGY CENTER (LEC) PROJECT PARTICIPANT COMMITTEE IN AN AMOUNT NOT-TO-EXCEED \$3,000,000 FOR DISASSEMBLY AND INVESTIGATION INTO THE CAUSE OF THE LEC FORCED OUTAGE AND PERFORM THE ASSOCIATED WORK NEEDED ON THE COMBUSTION TURBINE TO BETTER UNDERSTAND THE DAMAGE AND EVALUATE THE OPTIONS TO REPAIR AND RESTORE THE UNIT TO OPERATION

(reference Staff Report #113:20)

WHEREAS, On January 16, 2020, at 3:54 am LEC experienced a sudden failure on the combustion turbine. Prior to this failure, LEC had been operating steady state at 260 MW for about 2 hours, and had been online for about 2 days. From the first sign of problems to the trip was about 2 seconds; and

WHEREAS, LEC is under a long term maintenance contract (the LTMA) with Siemens Energy, Inc. for work on the machine. The LTMA contains warranty provisions that may apply, depending upon the nature and part that failed. The warranty coverage is limited to \$1,000,000 per incident. In addition, the language in the agreement requires that Siemens perform the work. If the work is subsequently discovered to be a valid warranty claim, Siemens will credit the cost back to NCPA; and

WHEREAS, NCPA filed a claim with the insurance carrier regarding the property damage loss; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

WHEREAS, the turbine failure was not anticipated in the budget. The disassembly/ investigation of the turbine costs total an estimated \$3,000,000. NCPA is recommending using funds from LEC's Maintenance Reserve account to fund this initial work. NCPA will file a warranty claim with Siemens depending on the outcome of the investigation. The LTMA provides coverage for \$1,000,000 per event, \$2,000,000 annual limits, which are available under the contract limitations of the LTMA. Any funds reimbursed by the insurance company will be used to replenish funds taken from the Maintenance Reserve account. Any shortfalls will need a budget augmentation to replenish the Maintenance Reserve account.

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the NCPA General Manager to execute agreements and issue Purchase Orders to carry out the work approved by the Lodi Energy Center Project Participant Committee in an amount not-to-exceed \$3,000,000 for disassembly and investigation into the cause of the Lodi Energy Center forced outage on January 16, 2020, and to perform the associated work needed on the combustion turbine to better understand the damage and evaluate the options to repair and restore the unit to operation.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2020, by the following vote on roll call:

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

 ROGER FRITH
 CHAIR

ATTEST: _____
 CARY A. PADGETT
 ASSISTANT SECRETARY