

**GOBIERNO DE PUERTO RICO
JUNTA REGLAMENTADORA DE SERVICIO PÚBLICO
NEGOCIADO DE ENERGÍA DE PUERTO RICO**

NEPR

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IN RE: SOLICITUD DE PROPUESTAS
PARA GENERACION TEMPORERA DE
EMERGENCIA

CASO NÚM.:
NEPR-AP-2020-0001

ASUNTO:
Reporte de Estatus y Progreso

**MOCIÓN PARA PRESENTAR REPORTE
DE ESTATUS Y PROGRESO DEL 15 DE ENERO DE 2021**

AL HONORABLE NEGOCIADO DE ENERGÍA:

COMPARECE la Autoridad de Energía Eléctrica de Puerto Rico a través de su representación legal y, en cumplimiento con la Orden del 22 de mayo del 2020,¹ presenta a el Negociado de Energía de la Junta Reglamentadora del Servicio Público (el “Negociado de Energía” o “Negociado”) el reporte titulado *Costa Sur Damage Assessment and Repairs Progress Status Report* fechado 15 de enero de 2021 (el “Reporte de Progreso”). Exhibit A. El Reporte de Progreso detalla las evaluaciones, reparaciones, compras y contrataciones relacionadas con la reparación de las unidades 5 y 6 de la Central Costa Sur.

RESPECTUOSAMENTE SOMETIDO.

En San Juan, Puerto Rico, este 15 de enero de 2021.

/s/ Katiuska Bolaños Lugo
Katiuska Bolaños Lugo
kbolanos@diazvaz.law
TSPR 18,888

¹ *Resolución y Orden* del Negociado de Energía del 22 de mayo del 2020 (la “Orden del 22 de mayo”).

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CERTIFICADO DE NOTIFICACIÓN

Certifico que en el día de hoy he radicado esta moción utilizando el sistema electrónico de radicación del Negociado de Energía en la siguiente dirección: <http://radicacion.energia.pr.gov> y, además, que he enviado copia de cortesía vía correo electrónico a rstgo2@gmail.com; rolando@bufeteemmanuelli.com; jessica@bufete-emmanuelli.com; pedrosaade5@gmail.com; larroyo@earthjustice.org; jluebkmann@earthjustice.org; rmurphy@earthjustice.org y hrivera@oipc.pr.gov.

En San Juan, Puerto Rico, a 15 de enero de 2021.

s/ Katuska Bolaños Lugo
Katuska Bolaños Lugo

Exhibit A

*Costa Sur Damage Assessment and Repairs Progress Status Report
January 15, 2021*



**Puerto Rico
Electric Power
Authority**

Puerto Rico Electric Power Authority (PREPA)

**Costa Sur Damage Assessment and Repairs
Progress Status Report
January 15, 2020**

Introduction and Outline

Introduction

- This report outlines PREPA's progress in its assessment, repairs, and procurement activities related to the start-up of Costa Sur Unit 5 and Unit 6

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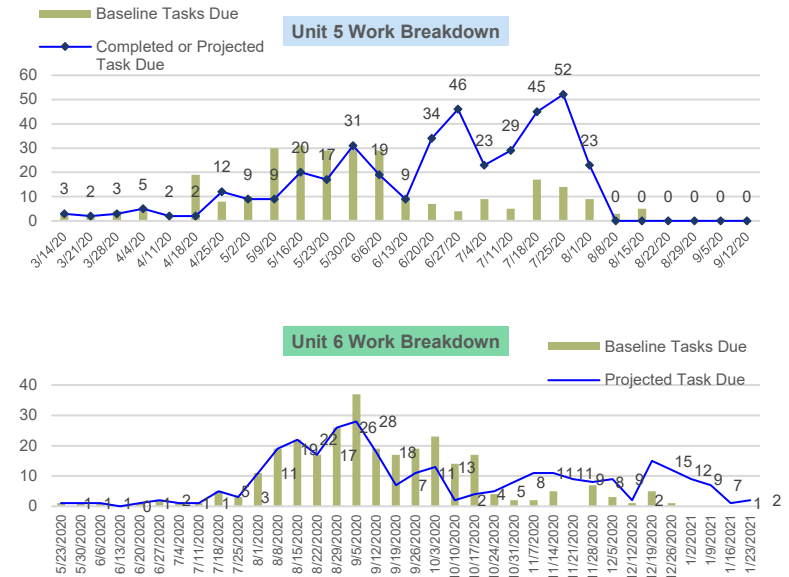


Program Overview – Unit 5 & 6 Start-Up Activities

Budget	
Approved Budget for Program	\$40,200,000
Forecast Cost for Program (subject to change)	\$38,860,454
Unit 5 Start-Up	
A. Budget Baseline	\$25,200,000
B. Total Forecast Cost	\$18,508,402
C. Total Amount Invoiced (Contractors)	\$13,981,251
D. PREPA Expenses (Time & Materials)	\$4,128,360
E. Total Expenses (C+D)	\$18,109,612
F. Total Disbursements	\$16,473,644
Unit 6 Start-Up	
G. Budget Baseline	\$19,078,286
H. Total Forecast Cost	\$20,352,052
I. Total Amount Invoiced (Contractors)	\$11,642,925
J. PREPA Expenses (Time & Materials)	\$381,957
K. Total Expenses (I+J)	\$12,024,882
L. Total Disbursements	\$8,523,066

Procurement			
110 Total Procurements	20 Total Emergency Procurements	\$29.1M Total Amount Contracts Awarded	96.4% % Total Procurements Completed
Unit 5 Start-Up		Unit 6 Start-Up	
62 U5 Total Procurements	14 U5 Emergency Procurements	48 U6 Total Procurements	6 U6 Emergency Procurements
\$14.4M U5 Amount Contracts Awarded	100.0% U5 % Procurements Completed	\$14.7M U6 Amount Contracts Awarded	92.0% U6 % Procurements Completed

Schedule			
Unit 5 Start-Up		Unit 6 Start-Up	
3/23/2020 Repairs Start Date	8/1/2020 U5 Start-Up Date	6/1/2020 Repairs Start Date	1/18/2021 U6 Start-Up Date
100.0% Time Elapsed	100.0% % Completion	100.0% Time Elapsed	99.0% % Completion
401 Total Completed Tasks	0 Pending Tasks On-Track	305 Total Completed Tasks	0 Pending Tasks On-Track
0 Pending Tasks Delayed	0 Pending Tasks Overdue	5 Pending Tasks Delayed	2 Pending Tasks Overdue



Scope			
Unit 5 Start-Up		Unit 6 Start-Up	
55** Workstreams Identified	55 Workstreams at 100% Completion	27 Workstreams Identified	23 Workstreams at 100% Completion
Weekly Headcount (Maximum)*			
142* PREPA's Max Weekly Headcount		173* Max Total Weekly Headcount	
31* Contractor's Max Weekly Headcount			
Resource Breakdown			Headcount*
PREPA PMO			3
PREPA Costa Sur			73
PREPA Loan Employees			66
PREPA Electric Conservation			0
PREPA Electric Underground			0
BRAND			11
JR INSULATION			9
LT Automation			0
ESI			7
ALONSO Y CARUS			4
Total			173

* Maximum weekly headcount based on week starting on 01/11/2021
** Workstreams not associated with Unit 5 start-up activities were moved to either Unit 6 start-up schedule or under long-term repairs



Unit 5 Status Overview

Unit 5 Status Overview

100.0%
% Completion

100.0%
Time Elapsed

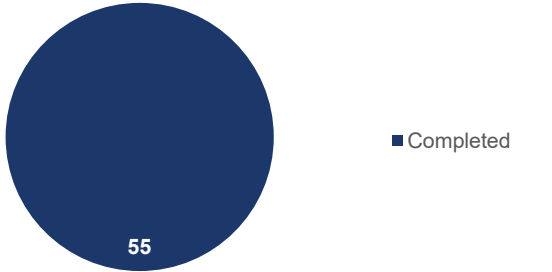
Management Notes:

- Unit successfully delivered for commercial operations on 8/1/2020 (14 days ahead of schedule baseline date of 8/14)
- Total cost associated with Unit 5 repairs is approximately \$18.5M (\$6.7M below the budget baseline submitted)
- The PMO team continues to review the forecast cost for project closeout and adjust as needed.

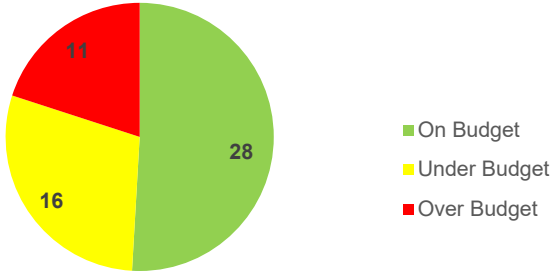
Key Project Metrics

1/7/2020 Outage Date	3/23/2020 Repairs Start Date	\$25.2M Budget Baseline
8/1/2020* U5 Start-Up Date	8/1/2020* Project End Date	\$18.5M* Forecast Expenses

Schedule



Budget



Max Weekly Headcount

0 PREPA's Max Weekly Headcount	0 Contractor's Max Weekly Headcount	0 Total Weekly Max Headcount
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Schedule Metrics

Metric	#	%
Scheduled Tasks	401	-
Completed Tasks	401	100.0%
Pending Task (On-Track)	0	0.0%
Pending Task (Delayed)	0	0.0%
Pending Task (Overdue)	0	0.0%

0 Pending Tasks Due in July	0 Pending Tasks Due in August	0 Pending Tasks Due in September
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Scope Metrics

55 Identified Workstreams***	55 Workstreams at 100% Completion	100.0% % of Workstreams Completed
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Financial Metrics

A. Budget Baseline	\$25,200,000
Expenses	
B. Total Forecast Cost*	\$18,508,402
C. Total Amount Invoiced	\$13,981,251
D. PREPA Related Expenses**	\$4,128,360
F. Total Expenses (C+D)	\$18,109,612
Balances	
G. Balance Available (A-F)	\$7,090,388
H. Forecast Balance (A-B)*	\$6,691,598
Disbursements	
I. Total Disbursements	\$16,473,644
J. % of YTD Expenses Paid (I/F)	91.0%

* Excludes repairs not needed for start-up such as new Administrative and Laboratory buildings and concrete repairs discharge channel
** Includes expenses related to PREPA's labor and warehouse materials
*** 7 Workstreams not associated with Unit 5 start-up activities were moved to either Unit 6 start-up schedule or under long-term repairs

Summary by Initiative

Initiative Description	# Workstreams	% Completion	Pending Tasks	Finish Date	Budget Baseline	Total Forecast Amount	Total Committed	Total Invoices	Total Disbursements
01. Emergency Declaration	1	100%	0	3/23/2020	\$0	\$0	\$0	\$0	\$0
02. Engineering, Technical Studies & Inspection*	11	100%	0	7/29/2020	\$2,238,171	\$2,670,618	\$2,120,497	\$2,106,643	\$2,005,573
03. Asbestos Removal and Disposal Unit 5	1	100%	0	7/20/2020	\$199,000	\$0	\$199,000	\$0	\$0
04. Lead Removal Works Unit 5	1	100%	0	7/4/2020	\$1,111,843	\$216,243	\$209,969	\$201,175	\$101,564
05. Structural Repair Works Unit 5	3	100%	0	7/20/2020	\$3,431,193	\$2,083,193	\$2,083,193	\$2,668,538	\$2,282,407
06. Condensate Water Tank 5 Repairs	2	100%	0	7/23/2020	\$970,800	\$698,348	\$492,130	\$694,936	\$694,936
07. Boiler Unit 5 Repair Works	9	100%	0	7/24/2020	\$4,555,230	\$2,394,975	\$3,092,567	\$2,259,367	\$2,209,457
08. Auxiliary Equipment Inspection and Repair	9	100%	0	8/1/2020	\$4,659,436	\$3,355,825	\$3,552,950	\$3,277,604	\$3,256,685
09. Turbine Inspection and Repairs	1	100%	0	7/23/2020	\$0	\$193,110	\$193,110	\$193,110	\$193,110
10. Generator Inspection and Repairs	1	100%	0	7/28/2020	\$0	\$75,078	\$379,500	\$75,078	\$54,000
11. Operational Test and Control Tasks	5	100%	0	7/28/2020	\$144,000	\$0	\$0	\$0	\$0
12. Unit 5 Startup and Commissioning	1	100%	0	8/1/2020	\$72,000	\$0	\$0	\$0	\$0
13. Civil Repair and Other Areas Reconstruction	7	100%	0	7/27/2020	\$495,865	\$578,905	\$694,555	\$539,805	\$465,505
14. Inspections and Tests MPT	3	100%	0	8/1/2020	\$0	\$0	\$0	\$0	\$0
15. Supplementary Tasks, Future Works & Misc.***	7	95%	4	7/1/2021	\$7,306,755	\$2,547,463	\$2,869,186	\$1,964,997	\$1,515,763
16. Operation Expenses (Payroll, Materials, etc.)**	-	-	0	8/1/2020	\$0	\$3,694,645	\$3,694,645	\$0	\$3,694,645
					\$25,184,292	\$18,508,402	\$19,581,301	\$13,981,251	\$16,473,644

* Includes PREPA expenses related to Program Management Office (PMO)

** Includes expenses related to PREPA's craft labor and warehouse materials

*** Includes repairs and rebuild of administrative and laboratory buildings



Puerto Rico Electric
Power Authority

Unit 5 Procurement Plan - Awarded

The following table outlines the procurements awarded with new or existing contracts to support Costa Sur Assessment & Repairs:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
1	MPT 4 Secondary Containment Repair Works	Emergency Procurement	\$16,120	48	86581	5 SENSES SOLUTIONS LLC.
2	MPT 5 Secondary Containment Repair Works	Emergency Procurement	\$22,281	57	86581	5 SENSES SOLUTIONS LLC.
3	Removal and Mitigation of Contaminated Soil Switchyard 115 kV	Emergency Procurement	\$19,928	59	86716	5 SENSES SOLUTIONS LLC.
4	Cleaning Main Turbine Oil Cooler (MOT)		\$9,994	62	87392	5 SENSES SOLUTIONS LLC.
5	Project Management and Data Analytics Support	Other	\$131,742	11	87670	ACUMENIAN LLC
6	A/C units duct fabrication		\$5,380	MISC	87147	AIT TECHNOLOGIES INC
7	A/C equipment and duct cleaning		\$86,595	19	86734	AIT TECHNOLOGIES INC
8	Natural Gas Line Pipe Structural Repair Works	Emergency Procurement	\$943,083	47	86823	ALL CONTRACTORS SERVICES CORP
9	Trailer for Costa Sur Repairs		\$78,325	54	86814	ALL CONTRACTORS SERVICES CORP
10	Temporary Laboratory Offices (Rental - 12 Months)	Emergency Procurement	\$76,275	53	87245	ALL CONTRACTORS SERVICES CORP
11	Temporary Administrative Offices (Rental - 12 Months)	Emergency Procurement	\$66,825	54	86552	ALL CONTRACTORS SERVICES CORP

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 5 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements awarded with new or existing contracts to support Costa Sur Assessment & Repairs:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
12	Civil Works Control Room 5-6, Compressor Room, Shift Engineer Room	Emergency Procurement	\$413,827	26-29	86653	ALL CONTRACTORS SERVICES CORP
13	Crane Rental of 150 tons and 230 feet		\$218,300	MISC	82754	ALL CONTRACTORS SERVICES CORP
14	Turbine Oil Flush		\$183,116	62	80175	ALLIED POWER TECHNOLOGIES
15	NDT Services Unit 5	Emergency Procurement	\$45,360	32	86678	ALONSO CARUS IRON WORKS INC
16	Opacity Meter Purchase		\$87,891	43	84994	AP EQUIPMENT INC / LT AUTOMATION
17	Scaffolding Services	Service Upon Request Agreement	\$284,626	65	84611	BRAND ENERGY INFRASTRUCTURE
18	Superheater-Desuperheat Link Piping Installation U. 5		\$1,766,429	30	86214	CARIBE GE INTERNATIONAL ENERGY
19	Structural Repairs Unit 1-6	Request for Quotes (RFQs)	\$2,652,000	13-17	86331	CARIBE GE INTERNATIONAL ENERGY
20	Exterior mechanical inspection of the condition of the boilers	Service Upon Request Agreement	\$477,480	1	83998	CARIBE GE INTERNATIONAL ENERGY
21	Preliminary Inspection and Steel Structural Elements for Boilers and Auxiliary Equipment (units 3-6) and Preliminary Visual Inspection of Steam Piping and Equipment and Structural Supports.	Service Upon Request Agreement	\$360,275	2	84002	CARIBE GE INTERNATIONAL ENERGY
22	Interior mechanical inspection of the condition of the boilers Units 5 and 6	Service Upon Request Agreement	\$100,630	7	83998	CARIBE GE INTERNATIONAL ENERGY
23	Asbestos Removal & Disposal Works Unit 5	Emergency Procurement	\$0	12A	86559	Caribe Hydroblasting

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 5 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements awarded with new or existing contracts to support Costa Sur Assessment & Repairs:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
24	Vacuum Pump Motor Repairs		\$7,577	31	87167	CORTES INDUSTRIAL ORGANIZATION
25	Project Management Services	Other	\$53,500	11	84270	CPM PR LLC
26	Geotechnical studies for Costa Sur		\$215,000	10	86920	EARTH ENGINEERS INC
27	Provide post-earthquake geotechnical evaluation of the foundation support of the different structures in the facility	Request for Quotes (RFQs)	\$349,066	10	86125	EARTH ENGINEERS INC
28	Structural Elements Immediate Repair Work to Allow Additional Interior Inspection of the Boilers and Other Equipment of the CSPP	Service Upon Request Agreement	\$108,184	5	82470	ENERSYS ENGINEERING CORP
29	Lead Removal Services	Service Upon Request Agreement	\$72,327	4	82470	ENERSYS ENGINEERING CORP
30	Structural Repair Works Old Condensate Water Tanks A-1-4, B-1-4 (Temporary Connection)	Service Upon Request Agreement	\$206,218	20	82470	ENERSYS ENGINEERING CORP
31	Old Water Condensate Tanks Interconnection Works to Unit 5 Demin Water Cycle System	Service Upon Request Agreement	\$8,832	24	82470	ENERSYS ENGINEERING CORP
32	Structural Repairs Cross Bracings Structure - Overhead Crane 1-6	Service Upon Request Agreement	\$77,889	25	82470	ENERSYS ENGINEERING CORP
33	Cable tray installation for switchgear equipment		\$32,258	MISC	86961	ENGINEERING SERVICES
34	Wall Panel Installation		\$33,694	MISC	87181	ENGINEERING SERVICES
35	Deaerator Pump Repairs and Replacement		\$94,500	31	83250	ENGINEERING SERVICES

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Puerto Rico Electric
Power Authority

Unit 5 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements awarded with new or existing contracts to support Costa Sur Assessment & Repairs:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
36	Repair Works on Valves (de Línea) Unit 5	Service Upon Request Agreement	\$153,208	33	83581	ENGINEERING SYSTEMS SALES
37	High Energy and Auxiliary steam and water pipes assessment for units 5 & 6		\$68,720	42	83534	ENVIRONICS ENGINEERING
38	Condenser Tube Cleaning		\$193,325	38	84907	ENVIRONICS ENGINEERING
39	Lead Paint and Asbestos Sampling Analysis		\$856	12, 12A	79564	Environmental Health & Safety Services
40	Project Financial Controls Support		\$62,055	11	2020-P00087	FUSIONWORKS
41	Visual Inspection and Ultrasonic Inspect API 653	Request for Quotes (RFQs)	\$134,448	6	85840	Heisen Global Engineering (HGE)
42	Condition Survey and Testing for Concrete Pedestals for Power Turbine and Generator Units , 5 and 6		\$55,160	8	85980	Heisen Global Engineering (HGE)
43	Design Work - Structural Repairs Condensate Tank 5 & Old Water Condensate tanks	Request for Quotes (RFQs)	\$146,662	22	86344	Heisen Global Engineering (HGE)
44	Structural engineering consulting		\$232,400	MISC	86919	Heisen Global Engineering (HGE)
45	Water Treatment Tank 2 Cleaning		\$0	19	85153	INDUCHEM SERVICES
46	Boiler Hydroblasting	Service Upon Request Agreement	\$58,020	19	80903	INDUCHEM SERVICES
47	Condenser Discharge Tube and Tunnel Cleaning		\$19,336	38	81017	INDUCHEM SERVICES

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 5 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements awarded with new or existing contracts to support Costa Sur Assessment & Repairs:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
48	Lead Removal and Disposal Works - Structural Repairs Units 1-6	Emergency Procurement	\$215,387	12	86566	J R INDUSTRIAL CONTRACTORS INC
49	Insulation Repair Works in Boiler 5	Service Upon Request Agreement	\$216,643	37	86283	J R INDUSTRIAL CONTRACTORS INC
50	Integration of Raw Water Pumps Controls into DCS Foxboro	Service Upon Request Agreement	\$239,343	43	85590	LT AUTOMATION
51	Controls from interconnection work, all water condensate tank	Service Upon Request Agreement	\$46,232	24	65206	LT AUTOMATION
52	Relocation of Foxboro monitors and power circuits for opacity meters		\$19,950	43	87275	LT AUTOMATION
53	Integration of Demineralizer Controls into DCS	Service Upon Request Agreement	\$53,100	43	84651	LT AUTOMATION / Schneider
54	Condensate Recirculating Discharge Pipe (12 ft diameter)	Emergency Procurement	\$975,000	39	86664	MALNAT ASOCIADOS
55	Underwater Visual Inspection of the Tunnels Condenser 5 and 6	Emergency Procurement	\$58,400	9	86495	MARINE DIVING CONTRACTORS
56	Overhead Crane Installation and Commissioning		\$1,553,502	36	82717	MASTER LINK CORPORATION
57	Turbine-Generator Inspection Work	Emergency Procurement	\$75,078	61	87153	MECHANICAL DYNAMICS ANALYSIS.3
58	Structural Repairs Condensate Tank 5	Emergency Procurement	\$345,468	22	86704	R G ENGINEERING INC
59	Repairs on fire protection systems	Service Upon Request Agreement	\$18,136	MISC	84101	R G ENGINEERING INC

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 5 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements awarded with new or existing contracts to support Costa Sur Assessment & Repairs:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
60	Project Management Support	Other	\$58,635	11	85215	SCOTTMADDEN, INC
61	Cargo Elevators Repairs	Service Upon Request Agreement	\$41,039	41	82412	VERTECH INC
62	Existing Overhead Crane Units 3 and 6, Certification		\$34,412	25	84013	VITAL ENERGY CORPORATION
Estimated Total			\$14,380,042			

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.





Unit 6 Status Overview

Unit 6 Executive Summary

99.0%
% Completion

100.0%
Time Elapsed

Management Notes:

- Delays in unit start-up are mainly due to turbine and boiler repairs found during the testing and start-up stage that need to be completed in order to sync the unit to the electric system
- Additional issues during start-up were found with the switchyard electrical equipment, voltage regulator, and protection controls. All of these repairs have been completed.
- Plant personnel is currently conducting start-up activities and unit is expected to be in operations on or before 1/18/2021

Scope and Metrics by Workstream

27

Identified Workstreams

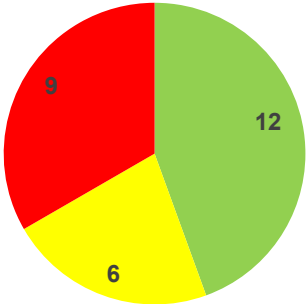
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Workstreams at 100% Completion

0

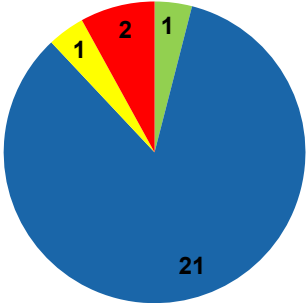
Workstreams Added (Since Last Report)

Budget



On-Track
Under-Budget
Over-Budget

Schedule

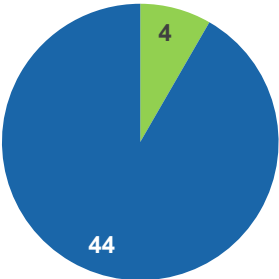


On-Track
Completed
Delayed
Overdue

Financials

Budget Baseline	\$19,078,286
Forecast Cost	\$20,352,052
Total Invoiced Amount	\$11,642,925
PREPA Expenses	\$381,957
Total Expenses	\$12,024,882
Total Disbursements	\$8,523,066
Total Committed in Contracts	\$14,294,221

Procurement Status



92.0%
% Procurements Completed

In-Progress
Awarded

48

Total Procurements

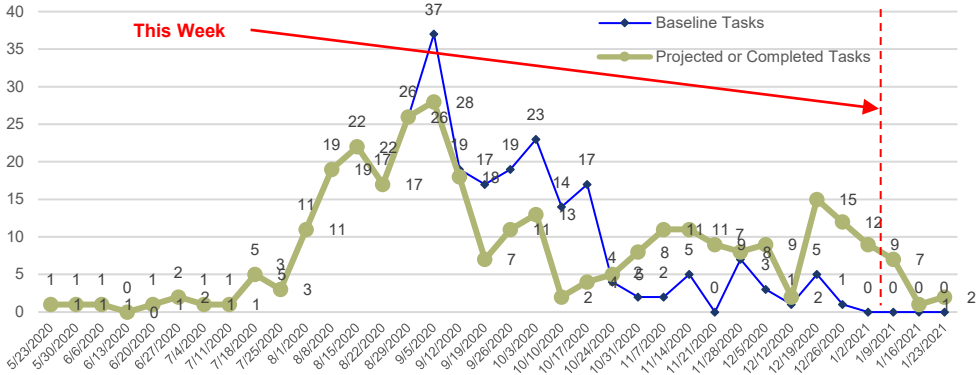
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Emergency Procurements

\$14.7M

Amount Contracts Awarded

Schedule Work Breakdown



Schedule Metrics

312

Total Scheduled Tasks

0

Pending Tasks On-Track

19

Tasks Due in January

305

YTD Tasks Completed

5

Pending Tasks Delayed

2

Pending Tasks Overdue

Max. Weekly Headcount (based on week of 1/11/21)



142

PREPA's Avg. Headcount



31

Contractor's Avg. Headcount

173

Max. Total Headcount

Unit 6 Project Summary by Workstream

ID	Workstream Description	Forecast Cost	Resources Assigned	% Complete	Scheduled Start	Scheduled Finish	Status	Tasks Completed	Tasks Pending
1	Project Initiation, Procurement, and Other Work Activities	\$597,940	PREPA, Acumenian, Fusionworks, ScottMadden	98%	5/22/2020	1/19/2021	Overdue	15	1
2	Emergency Declaration	\$0	PREPA	100%	5/22/2020	6/18/2020	Completed	3	0
3	Lead Removal Works	\$110,000	JR Industrial Contractors	100%	7/21/2020	9/4/2020	Completed	1	0
4	Asbestos Removal Works	\$100,000	Caribe Hydroblasting (CHED)	100%	7/20/2020	9/5/2020	Completed	1	0
5	Structural Steel Repair Works Unit 6	\$1,348,000	General Electric Fieldcore (GEF)	100%	7/27/2020	10/3/2020	Completed	67	0
6	Scaffolding Services	\$425,000	BRAND ENERGY INFRASTRUCTURE	100%	6/15/2020	6/29/2020	Completed	1	0
7	Boiler Wash	\$125,000	Induchem	100%	6/5/2020	7/13/2020	Completed	1	0
8	Cargo Elevator Repairs	\$10,000	Vertech	100%	8/15/2020	9/14/2020	Completed	0	0
10	Air-Preheater Repairs	\$1,541,195	JC Mechanical Industrial Services LLC	100%	8/17/2020	9/9/2020	Completed	1	0
11	Balance of Plant Works	\$0	PREPA	TBD	9/12/2020	11/25/2020	Completed	0	0
12	Boiler Repair Works	\$2,536,612	PREPA	100%	6/1/2020	11/23/2020	Completed	13	0



Unit 6 Project Summary by Workstream (Cont'd)

ID	Workstream Description	Forecast Cost	Resources Assigned	% Complete	Scheduled Start	Scheduled Finish	Status	Tasks Completed	Tasks Pending
13	Burner Repairs	\$180,402	PREPA	100%	8/25/2020	9/25/2020	Completed	1	0
14	Condensate Circulating Water System Repairs	\$1,111,325	Environics Engineers, Malnat	100%	6/29/2020	10/3/2020	Completed	3	0
15	Condensate Storage Tank Demolition, Design, and New construction*	\$1,120,013	Alonso & Carus	100%	7/1/2020	1/15/2021	Completed	3	1
17	Desuperheater Replacement Crossover Links	\$1,694,370	CARIBE GE INTERNATIONAL ENERGY	100%	7/24/2020	9/9/2020	Completed	58	0
18	Electrical and Instrumentation Works	\$1,534,226	PREPA, AIT Technologies, Engineering Services, ESI, LT Automation	100%	6/24/2020	1/5/2021	Completed	50	0
19	Line and Safety Valves Repairs	\$219,513	Ensysa	100%	8/6/2020	11/20/2020	Completed	2	0
20	Mechanical Inspection, Repair & Alignment (Heaters, Fans, Pumps, and Valves)	\$681,032	PREPA	100%	8/17/2020	1/5/2021	Completed	24	2
21	Pipe Type Cable Repairs	\$289,399	Environics	100%	1/18/2021	1/29/2021	Completed	1	1
22	Stack, Insulation, and Refractory Works	\$945,926	JR Industrial Contractors	100%	8/4/2020	12/4/2020	Completed	6	0
23	Turbine-Generator Repairs	\$5,571,699	PREPA, MD&A	100%	8/12/2020	12/30/2020	Completed	39	0
24	Cooler Main Oil Tank Cleaning and Repairs and Hydrogen Cooler Cleaning	\$166,822	JR Industrial Contractors	100%	9/1/2020	10/27/2020	Completed	1	0

* Note: Condensate Storage Tank works is not needed for start-up, but the equipment is essential for plant reliability.



Unit 6 Project Summary by Workstream (Cont'd)

ID	Workstream Description	Est. Cost	Resources Assigned	% Complete	Scheduled Start	Scheduled Finish	Status	Tasks Completed	Tasks Pending
25	Unit 6 Start Up and Commissioning	\$0	PREPA	0%	1/14/2021	1/19/2021	Overdue	0	1
26	MPT 6 Secondary Containment Repair Works	\$34,175	5 Senses Solutions	100%	4/16/2020	10/14/2020	Completed	1	0
27	Operational Test and Control Tasks Unit 6	\$0	PREPA	100%	11/27/2020	1/14/2021	Completed	13	0
MISC	Miscellaneous Expenses and Other Contracts	\$9,402	Heinsen Global Engineering (HGE), LT Automation	-	6/1/2020	12/30/2020	Completed	0	0
Total		\$20,352,052							



Unit 6 Procurement Plan - Pipeline

The following table outlines the procurements currently in the pipeline to support the Costa Sur U6 Assessment and Start-Up Repairs:

#	Procurement Description	Procurement Type*	Est. Amount	Status	Target Date
1	Mitigation Contract – Mechanical Repairs with Stamp R (Boiler)	Service Upon Request Agreement	\$250,000	Contract Available When Needed	TBD
2	Mitigation Contract – Mechanical Repairs without Stamp R	Service Upon Request Agreement	\$450,000	Contract Available When Needed	TBD
3	Mitigation Contract – Electrical and Instrumentation Repairs	Service Upon Request Agreement	\$125,000	Contract Available When Needed	TBD
4	New Natural Gas Ignitors <i>(Not part of the Costa Sur Repairs budget)</i>	TBD	\$1,928,000	In-Planning Stage	TBD
Total			\$2,788,000		

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 6 Procurement Plan – Awarded

The following table outlines the procurements currently in the pipeline to support the Costa Sur U6 Assessment and Repairs project:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
1	MPT 6 Secondary Containment Repair Works	Emergency Procurement	\$34,176	26	86581	5 SENSES SOLUTIONS LLC.
2	Project Management and Data Analytics Support	Other	\$100,000	1	87670	ACUMENIAN LLC
3	Civil, electrical and mechanical repairs to the Excitation Control Room Unit 6	Emergency Procurement	\$158,020	18	87646	AIT TECHNOLOGIES INC
4	New Underground Cable Works for 4k Transformer		\$110,420	18	88725	AIT TECHNOLOGIES INC
5	Turbine Oil Flush		\$59,895	23	80175	ALLIED POWER TECHNOLOGIES
6	EATON Breaker LVAR 3000 Design, Fabrication, and Installation		\$191,985	18	86883	ALLIED POWER TECHNOLOGIES
7	Design & Construction of a New Water Condensate 6	Request for Proposal Process	\$0	15	87958	ALONSO CARUS IRON WORKS INC
8	Scaffolding Services	Service Upon Request Agreement	\$425,000	6	84611	BRAND ENERGY INFRASTRUCTURE
9	Structural Repairs Unit 1-6	Request for Quotes (RFQs)	\$1,348,000	5	86331	CARIBE GE INTERNATIONAL ENERGY
10	Desuperheater Link Repairs		\$1,694,370	17	87333	CARIBE GE INTERNATIONAL ENERGY
11	Boiler Tube Purchase (Bifurcate)		\$137,564	12	87998	CARIBE GE INTERNATIONAL ENERGY

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 6 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements currently in the pipeline to support the Costa Sur U6 Assessment and Repairs project:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
12	Asbestos Removal & Disposal Works Unit 5	Emergency Procurement	\$100,000	4	86559	Caribe Hydroblasting
13	Project Management Services	Other	\$41,400	1	84270	CPM PR LLC
14	Labor for Boiler Tube (Bifurcate) Replacement	Service Upon Request Agreement	\$74,400	12	82470	ENERSYS ENGINEERING CORP
15	Repair one High-Energy line	Service Upon Request Agreement	\$213,004	12	82470	ENERSYS ENGINEERING CORP
16	Transformer Testing		\$40,721	MISC	87169	Engineering Services International (ESI)
17	Deaerator Pump Repairs and Replacement		\$94,500	12	83250	Engineering Services International (ESI)
18	Turbine Instrumentation Wiring Replacement	Emergency Procurement	\$50,000	23	88931	Engineering Services International (ESI)
19	Safety Line Valves Repairs		\$219,513	19	85203	ENGINEERING SYSTEMS SALES
20	Purchase of Actuators for Heaters		\$40,860	24	88925	ENGINEERING SYSTEMS SALES
21	Condenser Tube Cleaning and Outlet Boxes		\$193,325	14	84917	ENVIRONICS ENGINEERING
22	Pipe Type Cable Repairs	Direct Negotiations	\$104,000	21	88249	ENVIRONICS ENGINEERING

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 6 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements currently in the pipeline to support the Costa Sur U6 Assessment and Repairs project:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
23	Lead Paint and Asbestos Sampling Analysis		\$10,000	12	86732	Environmental Health & Safety Services
24	Project Financial Controls Support		\$22,905	1	2020-P00087	FUSIONWORKS
25	Boiler Assessment	Service Upon Request Agreement	\$430,000	12	84002	GE FIELDCORE
26	Structural engineering consulting		\$250,000	15	86919	Heisen Global Engineering (HGE)
27	Boiler Hydroblasting	Service Upon Request Agreement	\$125,000	7	80903	INDUCHEM SERVICES
28	Internal Cleaning Services for Steam Generator		\$102,256	18	78061	INDUCHEM SERVICES
29	Oil coolers cleaning		\$34,984	24	88156	INDUCHEM SERVICES
30	Lead Removal and Disposal Works - Structural Repairs Units 1-6	Emergency Procurement	\$100,000	3	86566	J R INDUSTRIAL CONTRACTORS INC
31	Stack cleaning , painting, refractory, and insulation work	Service Upon Request Agreement	\$600,000	22	86283	J R INDUSTRIAL CONTRACTORS INC
32	Replacement of Baskets Air Pre-heaters Baskets Unit 6 and associated repairs	Emergency Procurement	\$581,055	10	87663	JC MECHANICAL INDUSTRIAL SERVICES LLC
33	Refractory inspection and repairs		\$196,250	22	88519	JR INDUSTRIAL CONTRACTORS INC

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Unit 6 Procurement Plan – Awarded (Cont'd)

The following table outlines the procurements currently in the pipeline to support the Costa Sur U6 Assessment and Repairs project:

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
34	Controls from interconnection work, all water condensate tank	Service Upon Request Agreement	\$67,000	18	65206	LT AUTOMATION
35	SS TANKS FOR PLANT REVERSE OSMOSIS	Service Upon Request Agreement	\$0	MISC	81974	LT AUTOMATION
36	Unit 6 Turbine thermocouples and RTD wiring labor	Service Upon Request Agreement	\$9,402	MISC	R243112	LT AUTOMATION
37	Condenser Discharge Tube Unit 6	Emergency Procurement	\$0	14	87630	MALNAT ASOCIADOS
38	High Pressure Heater Repairs		\$131,032	20	81838	MALNAT ASOCIADOS
39	Hydrogen coolers cleaning		\$90,978	24	88465	MARINE DIVING CONTRACTORS
40	Stator Cooler Cleaning		TBD	23	TBD #2	MARINE DIVING CONTRACTORS
41	Replacement of Rails, Overhead Crane 5 and 6	Contract Amendment	\$0	9	82717	MASTER LINK CORPORATION
42	Turbine and Generator Repairs		\$4,669,961	23	87501	MECHANICAL DYNAMICS ANALYSIS.3
43	Project management and stakeholder management support		\$58,635	1	87756	SCOTTMADDEN, INC
44	Cargo Elevators Repairs	Service Upon Request Agreement	\$10,000	8	82412	VERTECH INC
Estimated Total			\$12,920,612			

* Note: Service Upon Request Agreements refers to agreements that PREPA has in place to be used in the event that a need arises from one of the plants within the specified scope. Cost associated with these contracts are only a fraction of the total contract amount.



Costa Sur Unit 6 – Work Completed

Costa Sur Entrance



Costa Sur Power Plant



Costa Sur Unit 6 – Work Completed (Cont'd)

Construction Crane



Mobilization



Mobilization – Top Elevation

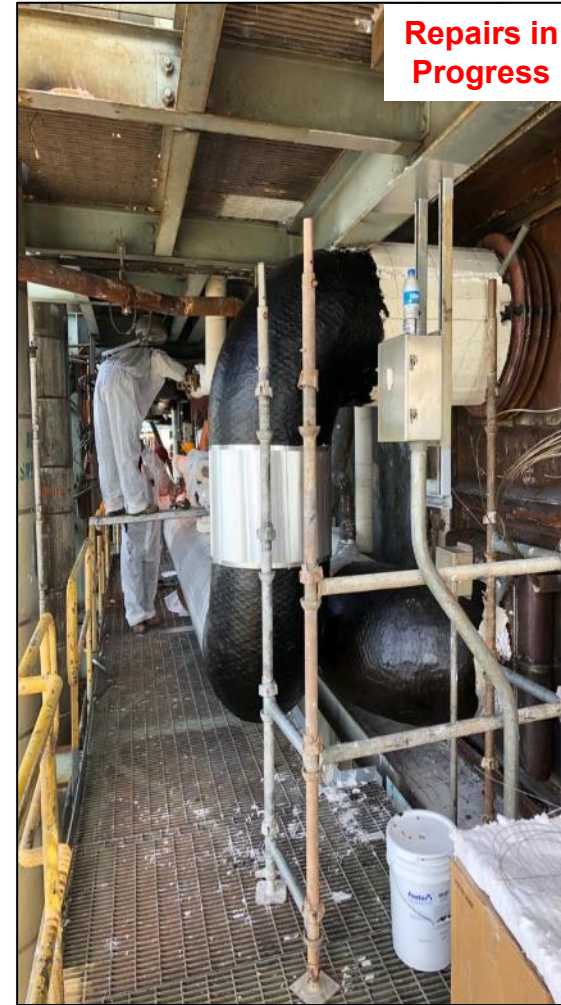


Costa Sur Unit 6 – Work Completed (Cont'd)

Air Pre-Heater Replacement

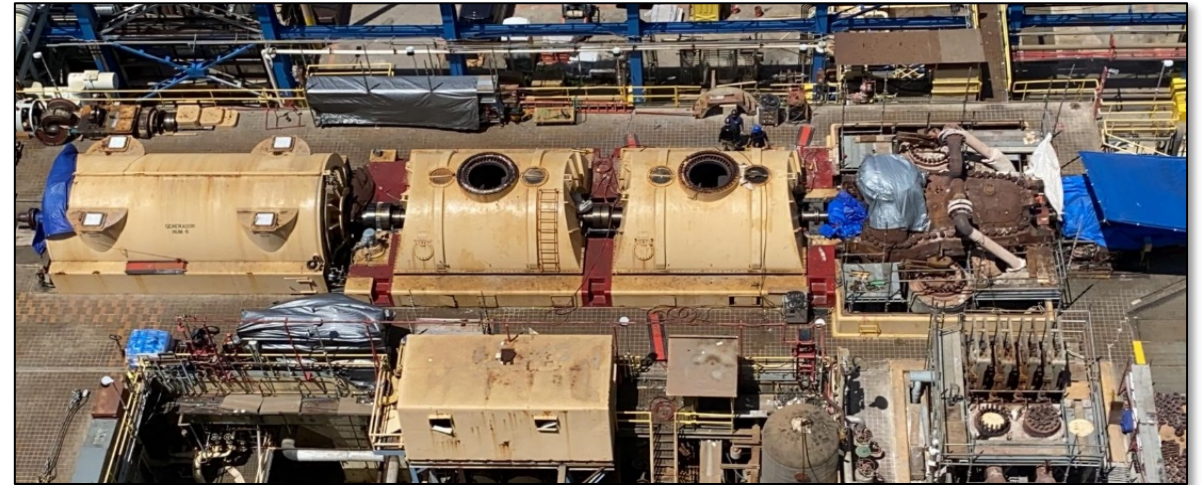


Desuperheater Link Replacement



Costa Sur Unit 6 – Work Completed (Cont'd)

Dissassembly, Maintenance and Repairs to Turbine



Costa Sur Unit 6 – Work Completed (Cont'd)

Turbine Scaffolding

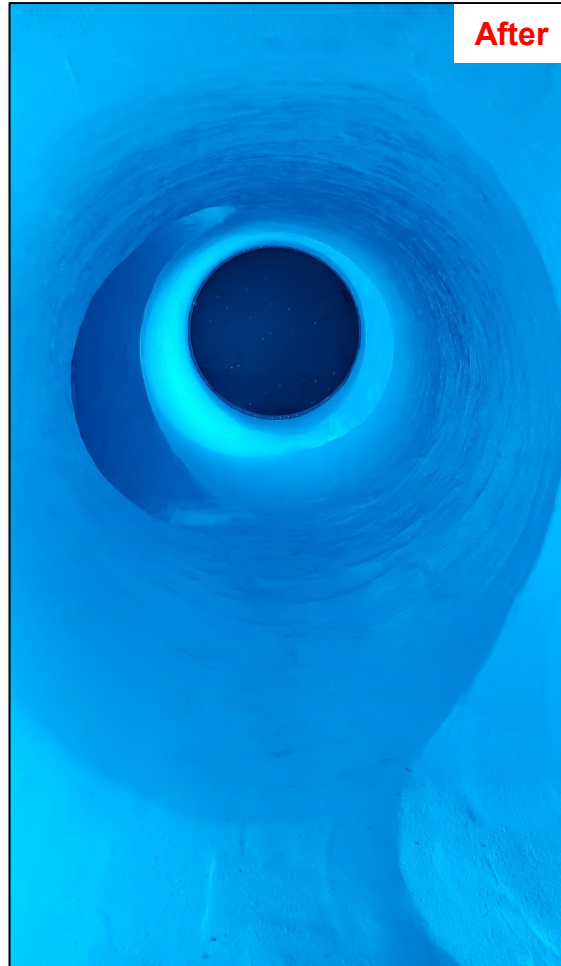


Turbine Assembly with Main Steam Lines



Costa Sur Unit 6 – Work Completed (Cont'd)

Circulating Water Tunnel Repairs

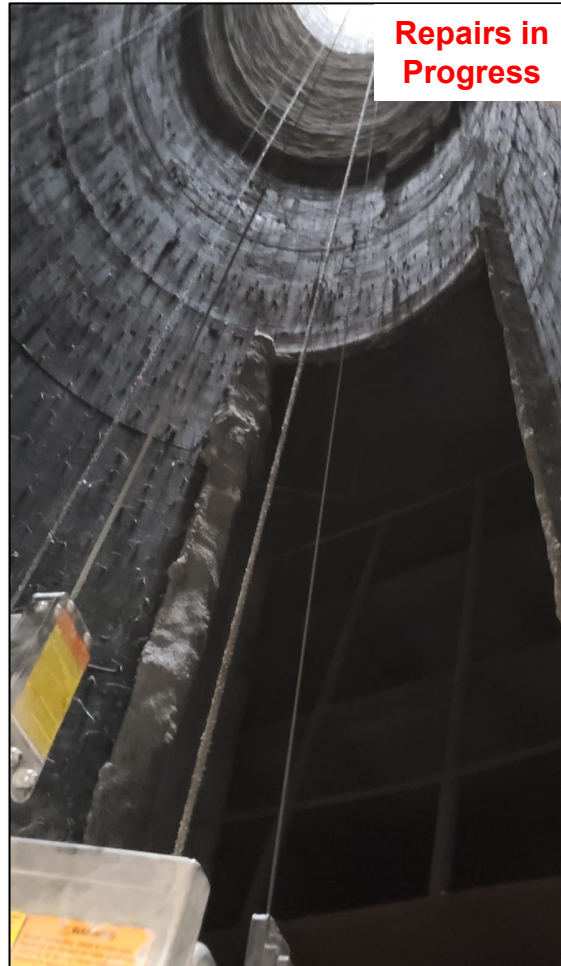


Control Valve Repairs



Costa Sur Unit 6 – Work Completed (Cont'd)

Stack Refractory Repairs



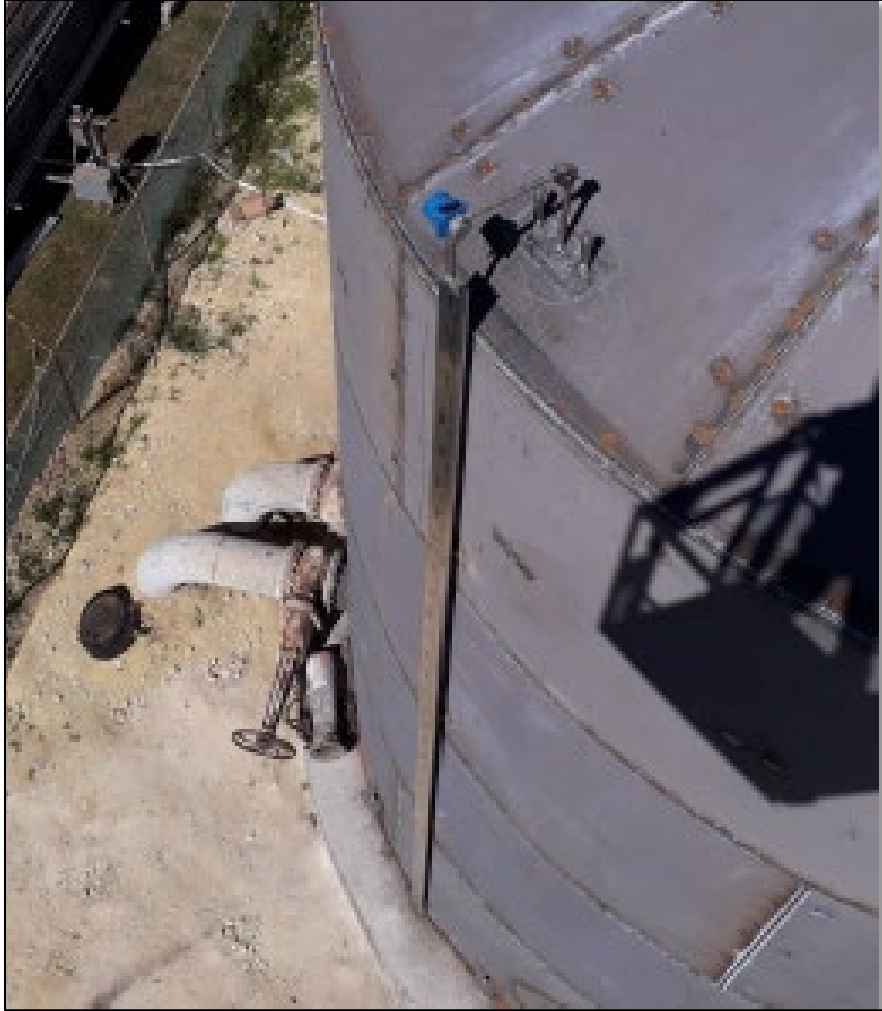
Costa Sur Unit 6 – Work Completed (Cont'd)

Condensate Storage Tank Repairs



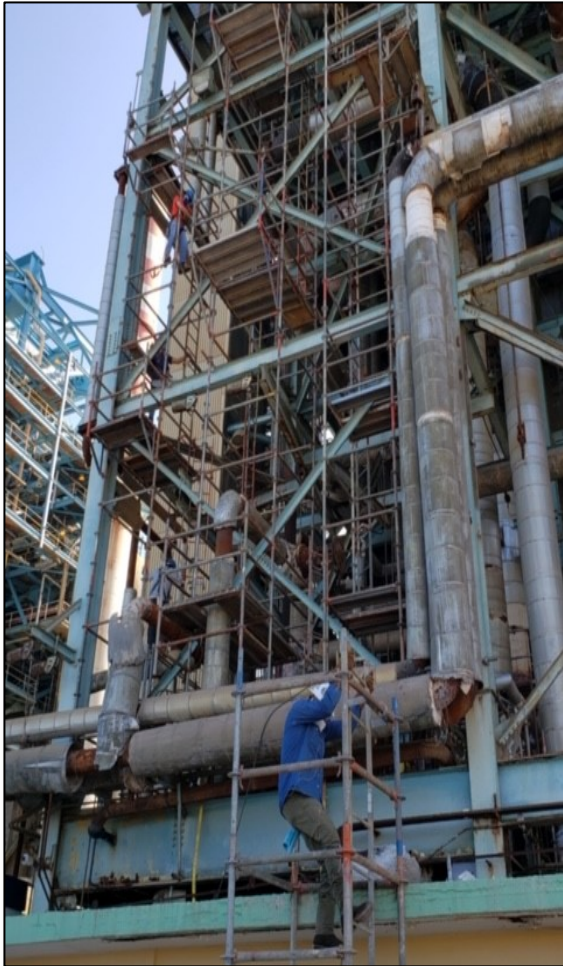
Costa Sur Unit 6 – Work Completed (Cont'd)

Condensate Storage Tank Repairs



Costa Sur Unit 6 – Work Completed (Cont'd)

Scaffolding



Turbine 'U Tube'



Column Fabrication



Costa Sur Unit 6 – Work Completed (Cont'd)

Electrical Installations



Bracing



Costa Sur Unit 6 – Work Completed (Cont'd)

New Demi Tanks



Electrical Pipes



Costa Sur Unit 6 – Work Completed (Cont'd)

Bifurcate Pipes



Intake Pipe and Tank Welds



Costa Sur Unit 6 – Work Completed (Cont'd)

Steam Line Insulation

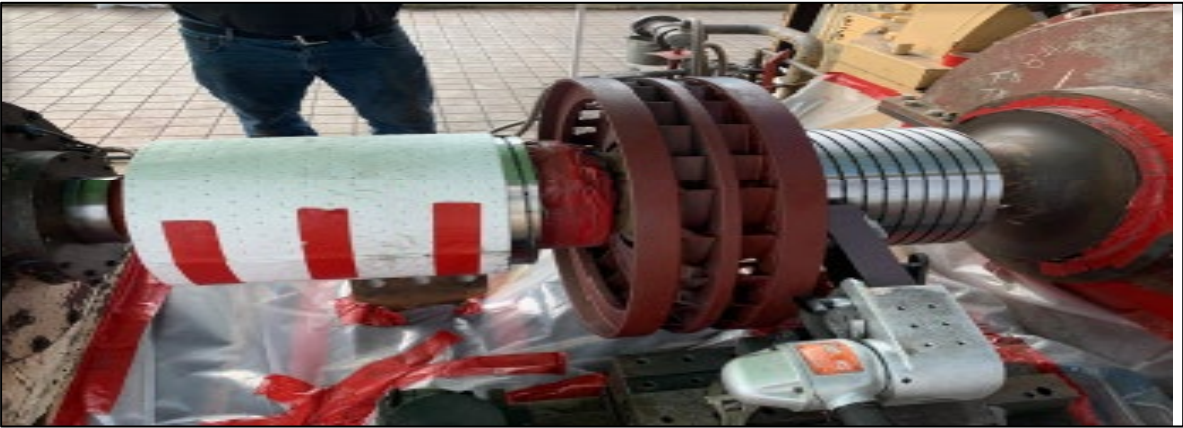


Trench Excavation and Demolition



Costa Sur Unit 6 – Work Completed (Cont'd)

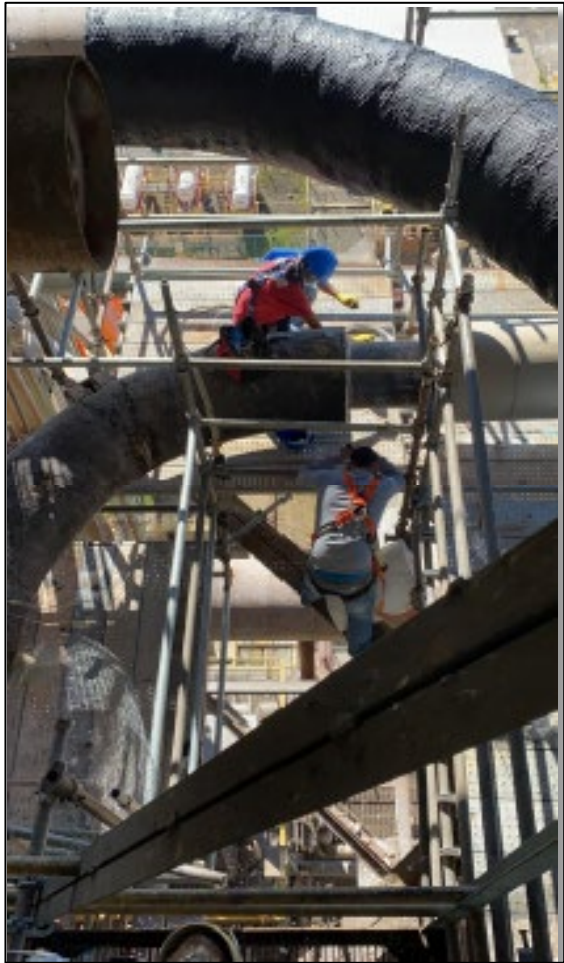
Generator Turbine Collector Rings



Insulation



Insulation





Appendix

Emergency Management KPI Dashboard

DEMAND (MW)



1926

AS OF JAN 15, 2021

CUSTOMERS ENERGIZED



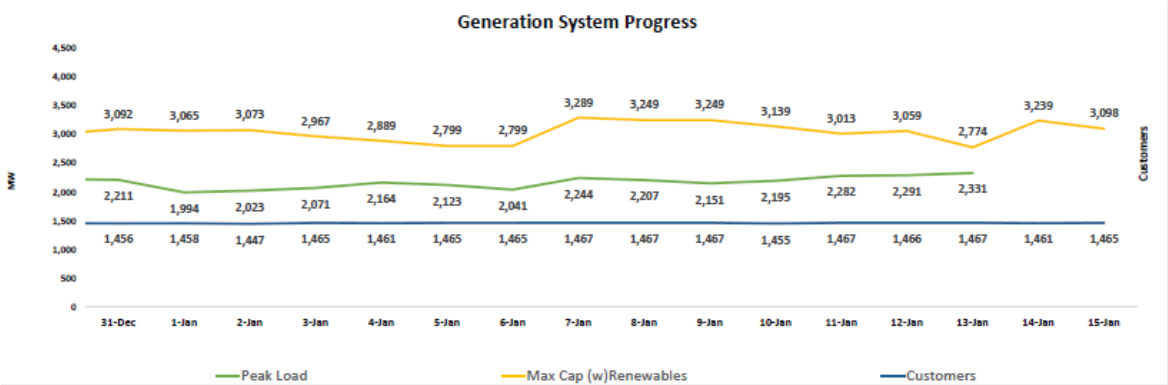
99.80%

1,465,313

Progress of Critical Generation System					
Power Plant	Unit	Power Plant Type	Installed Generation (MW)	Maximum Capacity (MW)	Actual Generation (MW)
Costa Sur	5	Base Load	410	300	281
Aguirre	1	Base Load	450	400	240
Aguirre	2	Base Load	450	450	236
Aguirre CC	Stag 1	Base Load	296	142	0
Aguirre CC	Steam 1	Base Load	96	39	0
Aguirre CC	Stag 2	Base Load	296	100	0
San Juan CC	CT 5	Base Load	160	150	120
San Juan CC	STG 5	Base Load	60	50	40
Cambalache	2	Peaker	82.5	77	0
Cambalache	3	Peaker	82.5	77	0
Daguao	1-2	Peaker	21	16	0
Palo Seco Hidrogas	1-1	Peaker	21	19	0
Palo Seco Hidrogas	2-1	Peaker	21	20	0
Jobos	1-2	Peaker	21	20	0
Mayaguez	2	Peaker	55	55	0
Mayaguez	3	Peaker	55	25	0
Mayaguez	4	Peaker	55	50	0
Yabucoa	1-1	Peaker	21	18	0
Hidroeléctricas		Peaker	26	20	1
EcoEléctrica	1	Base Load	183	184	164
EcoEléctrica	2	Base Load	183	184	164
ECO	Steam	Base Load	184	183	165
AES	1	Base Load	262	257	255
AES	2	Base Load	262	257	255
Sub - Total			3753	3093	1921
Renewables		Renewables	194	5	5
Total			3947	3098	1926

Generation Units Out of Service					
Power Plant	Unit	Power Plant Type	Installed Generation (MW)	Maximum Capacity (MW)	Expected date to be online*
San Juan	7	Base Load	100	70	Available for Emergencies
San Juan	8	Base Load	100	40	Available for Emergencies
San Juan	9	Base Load	100	40	TBD
Palo Seco	3	Base Load	216	90	March 14, 2021
Palo Seco	4	Base Load	216	138	January 25, 2021
Costa Sur	6	Base Load	410	410	January 20, 2021
Aguirre CC	Stag 1 (1-1)	Base Load	50	49	January 21, 2021
Aguirre CC	Stag 2 (2-1)	Base Load	50	50	TBD
Aguirre CC	Stag 2 (2-2)	Base Load	50	50	February 5, 2021
Aguirre CC	Steam 2	Base Load	96	50	TBD
San Juan CC	CT 6	Base Load	158	150	January 16, 2021
San Juan CC	STG 6	Base Load	60	50	January 16, 2021
Daguao	1-1	Peaker	18	18	TBD
Aguirre Hidrogas	2-1	Peaker	21	21	TBD
Aguirre Hidrogas	2-2	Peaker	21	21	TBD
Palo Seco Hidrogas	1-2	Peaker	21	19	February 5, 2021
Palo Seco Megagens	1, 2, 3	Peaker	66	66	February 15, 2021
Costa Sur Hidrogas	1-1	Peaker	21	21	TBD
Costa Sur Hidrogas	1-2	Peaker	21	21	TBD
Jobos	1-1	Peaker	21	21	TBD
Mayaguez	1	Peaker	55	25	TBD
Yabucoa	1-2	Peaker	21	20	TBD
Vega Baja	1-1	Peaker	21	21	TBD
Vega Baja	1-2	Peaker	21	19	TBD
Sub-Total			1934	1480	
Cambalache	1	Peaker	83		Long Term Outage
Palo Seco Hidrogas	2-2	Peaker	21		Long Term Outage
Palo Seco Hidrogas	3-1	Peaker	21		Long Term Outage
Palo Seco Hidrogas	3-2	Peaker	21		Long Term Outage
Palo Seco	1	Base Load	85	65	Long Term Outage
Palo Seco	2	Base Load	85		Long Term Outage
San Juan Steam	10	Base Load	100		Long Term Outage
Sub-Total			416	65	
Total			2350	1545	

*The dates are as of current information and system conditions, which may vary or change with unexpected events in the electrical system operation.



Project Team and Roles and Responsibilities Matrix

Project Team Members include a diverse representation from different areas of the organization such as Generation, PMO, DFMO, and key advisors .

Team Grouping	Key Roles and Responsibilities
Executive Team	<ul style="list-style-type: none"> Establish governance, provide direction and oversight to broader project team Assign resources, resolve conflicts and risks, and approve execution plan Manage stakeholder communications and engagement
Management Team	<ul style="list-style-type: none"> Review project needs, issues, risks, and plans; resolve or escalate as needed Provide input, feedback, and direction to the Execution and Procurement Team Provide oversight of the contractors/vendors supporting the project
Procurement Team	<ul style="list-style-type: none"> Manage the procurement of goods and services needed to support the Execution Team Provide regular status updates on all procurements Escalate issues, risks, and/or concerns as needed
Execution Team	<ul style="list-style-type: none"> Manage the project scope, budget, and schedule Engage regularly with controls team to provide timely and accurate update on execution Manage contractors/vendors supporting the project
Controls Team	<ul style="list-style-type: none"> Collect data and information related to the project scope, budget, and schedule Develop and maintain master project schedule Provide project information and progress to the Reporting Team
Reporting Team	<ul style="list-style-type: none"> Develop standard project status progress reports Manage stakeholder needs and request for communications
PREB/FOMB Interface Team	<ul style="list-style-type: none"> Identify stakeholder engagement and communication needs Communicate with Management and Executive Team on stakeholder requests Review all communications issued to the stakeholder group Provide interface support with stakeholder groups
FEMA Interface Team	<ul style="list-style-type: none"> Identify stakeholder engagement and communication needs Communicate with Management and Executive Team on stakeholder requests Review all communications issued to the stakeholder group Provide support to secure funding and any associated documentation Provide interface support with FEMA

