#### NEPR

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

Received:

Sep 15, 2020

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IN RE:

#### SOLICITUD DE PROPUESTAS PARA GENERACION TEMPORERA DE EMERGENCIA

CASE NUM.: NEPR-AP-2020-0001

SUBJECT: Reporte de Estatus y Progreso

#### MOCIÓN PARA PRESENTAR INFORME DE PROGRESO EN CUMPLIMIENTO DE ORDEN

AL HONORABLE NEGOCIADO DE ENERGÍA:

COMPARECE la Autoridad de Energía Eléctrica de Puerto Rico a través de su representación legal y muy respetuosamente expone y solicita:

La Autoridad de Energía Eléctrica de Puerto Rico (la "Autoridad), en cumplimiento con la Orden del 22 de mayo del 2020,<sup>1</sup> presenta a el Negociado de Energía de la Junta Reglamentadora del Servicio Público (el "Negociado de Energía") el reporte titulado *Costa Sur Damage Assessment and Repairs Progress Status Report* fechado 15 de septiembre de 2020 (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.

El Sr. Fernando Padilla, Director de la Oficina de Reestructuraciones y Asuntos Fiscales de la Autoridad y encargado del manejo del proyecto de referencia, reporta que durante inspecciones que se realizaran recientemente a las turbinas de la Unidad 6 se identificaron daños que no se habían podido identificar previamente. En consecuencia, estos trabajos no estaban contemplados en los planes para completar la reparación de la referida unidad. El impacto

<sup>&</sup>lt;sup>1</sup> Resolución y Orden del Negociado de Energía del 22 de mayo del 2020 (la "Orden del 22 de mayo").

económico de la reparación de estos nuevos daños podría ascender a aproximadamente \$2.7 millones. A su vez, estos daños pueden representar que los trabajos para completar la reparación de la Unidad 6 se retrasen por aproximadamente seis semanas adicionales al tiempo previamente proyectado e informado al Negociado.<sup>2</sup> La nueva fecha proyectada para concluir los trabajos y, además, si se presupuesta que se incurrirá en gastos adicionales, se compartirá con el Negociado de Energía a final de este mes cuando se presente en el próximo informe de progreso. Además, de la Autoridad entender que necesita un aumento al presupuesto autorizado por el Negociado de Energía, esta lo solicitará con la debida justificación, dando así fiel cumplimiento a la Orden del 22 de mayo.

POR TODO LO CUAL, se solicita respetuosamente al Negociado de Energía que tome conocimiento de lo aquí informado.

#### RESPETUOSAMENTE SOMETIDO.

En San Juan, Puerto Rico, este 15 de septiembre de 2020.

<u>/s Katiuska Bolaños Lugo</u> Katiuska Bolaños Lugo <u>kbolanos@diazvaz.law</u> TSPR 18888

DÍAZ & VÁZQUEZ LAW FIRM, P.S.C. 290 Jesús T. Piñero Ave. Oriental Tower, Suite 1105 San Juan, PR 00918 Tel. (787) 395-7133 Fax. (787) 497-9664

<sup>&</sup>lt;sup>2</sup> Exhibit A pág. 14.

#### **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: <u>http://radicacion.energia.pr.gov</u> y, además, que he enviado copia de cortesía vía correo electrónico a rstgo2@gmail.com; rolando@bufeteemmanuelli.com; jessica@bufete-emmanuelli.com; notificaciones@bufete-emmanuelli.com; pedrosaade5@gmail.com; larroyo@earthjustice.org.

En San Juan, Puerto Rico, a 15 de septiembre de 2020.

<u>s/ Katiuska Bolaños Lugo</u> Katiuska Bolaños Lugo

### Exhibit A

#### Costa Sur Damage Assessment and Repairs Progress Status Report September 15, 2020



### **Puerto Rico Electric Power Authority (PREPA)**

Costa Sur Damage Assessment and Repairs Progress Status Report September 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

Re	eport Outline	Page #
	Program Overview	3
-	Unit 5 Start-Up Status Overview	5
-	Unit 5 Start-Up Project Summary by Initiatives	6
-	Unit 5 Start-Up Procurements Awarded	7
•	Unit 6 Start-Up Status Overview	14
-	Unit 6 Start-Up Project Summary by Workstream	15
-	Unit 6 Start-Up Procurement Pipeline	18
-	Unit 6 Start-Up Procurements Awarded	19
-	Appendix	22



# **Program Overview – Unit 5 & 6 Start-Up Activities**

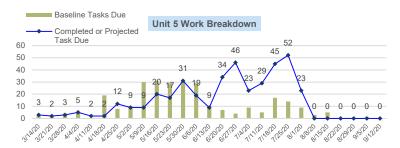
Budget	
Approved Budget for Program	\$40,200,000
Forecast Cost for Program (subject to change)	\$40,987,489
Unit 5 Start-Up	
A. Budget Baseline	\$25,200,000
B. Total Forecast Cost	\$18,883,746
C. Total Amount Invoiced (Contractors)	\$11,221,921
D. PREPA Expenses (Time & Materials)	\$4,069,645
E. Total Expenses (C+D)	\$15,291,566
F. Total Disbursements	\$11,292,579
Unit 6 Start-Up	
G. Budget Baseline	\$19,078,286
H. Total Forecast Cost	\$22,103,743
I. Total Amount Invoiced (Contractors)	\$2,732,117
J. PREPA Expenses (Time & Materials)	\$0
K. Total Expenses (I+J)	\$2,732,117
L. Total Disbursements	\$0

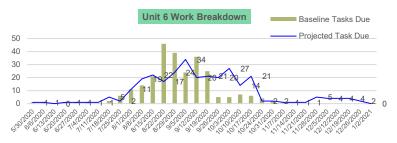
	Procur	Procurement				
101	20	\$29.4M				
Total	Total Emergency	Total Amount				

Procurements Procurements		Contracts Awarded	Completed			
Unit 5 S	Start-Up	Unit 6 Start-Up				
68 U5 Total Procurements	U5 Total U5 Emergency		6 U6 Emergency Procurements			
\$14.8M 100.0% U5 Amount Contracts Awarded U5 % Procurements Completed		\$14.6M U6 Amount Contracts Awarded	82.0% U6 % Procurements Completed			

94.1% % Total Procurements

Schedule							
Unit 5 S	Start-Up	Unit 6 Start-Up					
3/23/2020 Repairs Start Date			TBD U6 Start-Up Date				
100.0% Time Elapsed			<b>48.0%</b> % Completion				
401 Total Completed Tasks	Total Pending		40 Pending Tasks On-Track				
0 Pending Tasks Delayed	0 Pending Tasks Overdue	38 Pending Tasks Delayed	67 Pending Tasks Overdue				





Scope								
ι	Jnit 5 S	Start-Up		Unit 6 Start-Up				
55** Workstreams Identified		55 Workstreams at 100% Completion	\	27 Norkstreams Identified	7 Workstreams at 100% Completion			
	W	eekly Headco	unt	(Maximur	n)*			
121*         PREPA's Max Weekly         Headcount         170*         Contractor's Max Weekly         Headcount				<b>291*</b> Max Total Weekly Headcount				
Resour	ce Breakd	lown			Headcount*			
PREPA F	PMO				4			
PREPA C	Costa Sur				77			
PREPA L	oan Employ.	rees			40			
General I	Electric				76			
JR Insula	tion				17			
Brand	8							
Malnat	14							
MD&A	19							
JC Mecha					8			
All Contra	actors				6			
ESI					7			

Maximum weekly headcount based on week starting on 9/7/2020

LT Automation

Ensysa

Total

\*\* Workstreams not associated with Unit 5 start-up activities were moved to either Unit 6 start-up schedule or under long-term repairs

11

4

291



### **Unit 5 Status Overview**

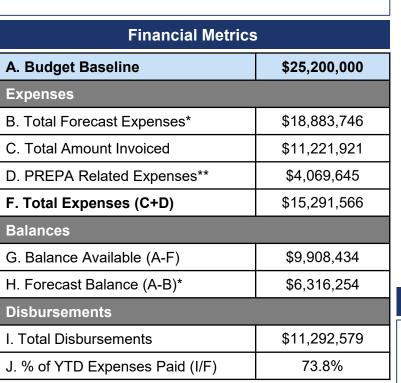


# **Unit 5 Status Overview**

#### 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 \$18.8M (\$6.4M below the budget baseline submitted)

Schedule Metrics					Financia
Metric		#		%	A. Budget Baseline
Scheduled Tasks		401		-	Expenses
Completed Tasks		401		100.0%	B. Total Forecast Expenses*
Pending Task (On-	Track)	0		0.0%	C. Total Amount Invoiced
Pending Task (Dela	ayed)	0 0		0.0%	D. PREPA Related Expense
Pending Task (Ove	erdue)			0.0%	F. Total Expenses (C+D)
0	0	0		0	Balances
Pending Tasks	Pending			Pending Tasks	G. Balance Available (A-F)
Due in July	Due in A	lugust	ugust Due ir		H. Forecast Balance (A-B)*
	Scope N	<b>Netrics</b>			Disbursements
5555IdentifiedWorkstreamWorkstreams***100% Corr		ams at %		100.0%	I. Total Disbursements
				of Workstreams Completed	J. % of YTD Expenses Paid

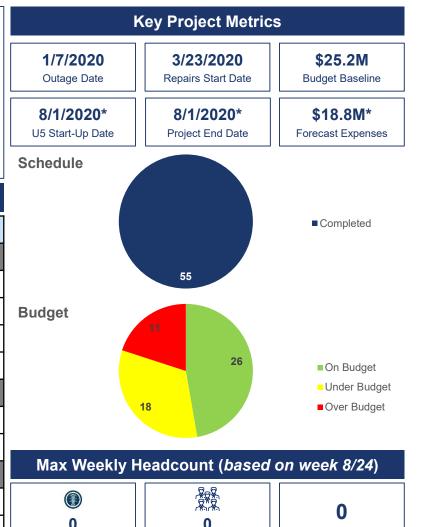


100.0%

% Completion

100.0%

Time Elapsed



PREPA's Max Weekly Headcount Headcount Total Weekly Max Headcount

Puerto Rico Electric Power Authority

\* 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	\$2,102,613	\$2,210,114	\$1,321,002	\$1,010,971
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	\$156,425	\$1,018,268	\$146,157	\$0
05. Structural Repair Works Unit 5	3	100%	0	7/20/2020	\$3,431,193	\$2,083,193	\$2,083,193	\$2,141,808	\$1,754,161
06. Condensate Water Tank 5 Repairs	2	100%	0	7/23/2020	\$970,800	\$712,930	\$712,930	\$660,718	\$631,468
07. Boiler Unit 5 Repair Works	9	100%	0	7/24/2020	\$4,555,230	\$2,898,663	\$3,124,552	\$2,174,909	\$1,742,994
08. Auxiliary Equipment Inspection and Repair	9	100%	0	8/1/2020	\$4,659,436	\$3,422,286	\$3,422,286	\$2,799,698	\$2,326,547
09. Turbine Inspection and Repairs	1	100%	0	7/23/2020	\$0	\$178,994	\$178,994	\$178,994	\$0
10. Generator Inspection and Repairs	1	100%	0	7/28/2020	\$0	\$54,000	\$379,500	\$54,000	\$0
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	\$694,555	\$694,555	\$484,130	\$19,928
14. Inspections and Tests MPT	3	100%	0	8/1/2020	\$0	\$0	\$0	\$0	\$0
15. Supplementary Tasks, Future Works & Misc.	7	51%	15	3/8/2021	\$7,306,755	\$2,885,442	\$3,219,262	\$1,260,505	\$111,864
16. Operation Expenses (Payroll, Materials, etc.)**	-	-	0	8/1/2020	\$0	\$3,694,645	\$3,694,645	\$0	\$3,694,645
					\$25,184,292	\$18,883,746	\$20,937,299	\$11,221,921	\$11,292,579



### **Unit 5 Procurement Plan - Awarded**

#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
1	MPT 4 Secondary Containment Repair Works	Emergency Procurement	\$38,783	48	86581	5 SENSES SOLUTIONS LLC.
2	MPT 5 Secondary Containment Repair Works	Emergency Procurement	\$17,480	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	January 8,2020 - Safety Inspection	-	\$3,031	65	85336	ABACUS ARCHITECTURE PSC
6	Project Management and Data Analytics Support	Other	\$228,414	11	84276	ACUMENIAN LLC
7	Relocation of A/C units	-	\$5,040	MISC	87148	AIT TECHNOLOGIES INC
8	A/C units duct fabrication	-	\$5,380	MISC	87147	AIT TECHNOLOGIES INC
9	A/C equipment and duct cleaning	-	\$86,595	19	86734	AIT TECHNOLOGIES INC
10	Natural Gas Line Pipe Structural Repair Works	Emergency Procurement	\$908,000	47	86823	ALL CONTRACTORS SERVICES CORP
11	Trailer for Costa Sur Repairs	-	\$78,325	54	86814	ALL CONTRACTORS SERVICES CORP



### 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	Temporary Laboratory Offices (Rental - 12 Months)	Emergency Procurement	\$76,275	53	87245	ALL CONTRACTORS SERVICES CORP
13	Temporary Administrative Offices (Rental - 12 Months)	Emergency Procurement	\$182,475	54	86552	ALL CONTRACTORS SERVICES CORP
14	Civil Works Control Room 5-6, Compressor Room, Shift Engineer Room	Emergency Procurement	\$413,827	26-29	86653	ALL CONTRACTORS SERVICES CORP
15	Crane Rental of 150 tons and 230 feet		\$148,000	MISC	82754	ALL CONTRACTORS SERVICES CORP
16	Turbine Oil Flush		\$169,000	62	80175	ALLIED POWER TECHNOLOGIES
17	NDT Services Unit 5	Emergency Procurement	\$24,113	32	86678	ALONSO CARUS IRON WORKS INC
18	Opacity Meter Purchase		\$66,971	43	84994	AP EQUIPMENT INC / LT AUTOMATION
19	Scaffolding Services	Service Upon Request Agreement	\$300,000	65	84611	BRAND ENERGY INFRASTRUCTURE
20	Superheater-Desuperheater Link Piping Installation U. 5		\$1,766,429	30	86214	CARIBE GE INTERNATIONAL ENERGY
21	Structural Repairs Unit 1-6	Request for Quotes (RFQs)	\$2,652,000	13-17	86331	CARIBE GE INTERNATIONAL ENERGY
22	Exterior mechanical inspection of the condition of the boilers	Service Upon Request Agreement	\$83,170	1	83998	CARIBE GE INTERNATIONAL ENERGY
23	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

\* 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.



#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
24	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
25	Asbestos Removal & Disposal Works Unit 5	Emergency Procurement	\$0	12A	86559	Caribe Hydroblasting
26	Vacuum Pump Motor Repairs		\$7,577	31	87167	CORTES INDUSTRIAL ORGANIZATION
27	Project Management Services	Other	\$53,500	11	84270	CPM PR LLC
28	Geotechnical studies for Costa Sur		\$107,500	10	86920	EARTH ENGINEERS INC
29	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
30	Structural Elements Immediate Repair Work to Allow Additional Interior Inspection of the Boilers and Other Equipment of the CSPP	Service Upon Request Agreement	\$68,441	5	82470	ENERSYS ENGINEERING CORP
31	Lead Removal Services	Service Upon Request Agreement	\$18,500	4	82470	ENERSYS ENGINEERING CORP
32	Structural Repair Works Old Condensate Water Tanks A-1-4, B-1-4 (Temporary Connection)	Service Upon Request Agreement	\$220,800	20	82470	ENERSYS ENGINEERING CORP
33	Old Water Condensate Tanks Interconnection Works to Unit 5 Demin Water Cycle System	Service Upon Request Agreement	\$153,000	24	82470	ENERSYS ENGINEERING CORP
34	Structural Repairs Cross Bracings Structure - Overhead Crane 1-6	Service Upon Request Agreement	\$78,492	25	82470	ENERSYS ENGINEERING CORP
35	Cable tray installation for switchgear equipment		\$32,258	MISC	86961	ENGINEERING SERVICES



#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
36	Wall Panel Installation		\$33,694	MISC	87181	ENGINEERING SERVICES
37	Repair Works on Valves (de Línea) Unit 5	Service Upon Request Agreement	\$178,818	33	83581	ENGINEERING SYSTEMS SALES
38	Chiller Mechanical Cleaning		\$0	MISC	78808	ENVIRONICS ENGINEERING
39	High Energy and Auxiliary steam and water pipes assessment for units 5 & 6		\$152,710	42	83534	ENVIRONICS ENGINEERING
40	Condenser Tube Cleaning		\$193,325	38	84907	ENVIRONICS ENGINEERING
41	Lead Paint and Asbestos Sampling Analysis		\$6,425	12, 12A	79564	Environmental Health & Safety Services
42	Lead Paint and Asbestos Sampling Analysis (Not used)		\$0	12, 12A	87203	Environmental Health & Safety Services
43	Project Financial Controls Support		\$26,775	11	2020-P00087	FUSIONWORKS
44	Visual Inspection and Ultrasonic Inspect API 653	Request for Quotes (RFQs)	\$134,448	6	85840	Heisen Global Engineering (HGE)
45	Condition Survey and Testing for Concrete Pedestals for Power Turbine and Generator Units , 5 and 6		\$55,160	8	85980	Heisen Global Engineering (HGE)
46	Design Work - Structural Repairs Condensate Tank 5 & Old Water Condensate tanks	Request for Quotes (RFQs)	\$146,662	22	86344	Heisen Global Engineering (HGE)
47	Structural engineering consulting		\$163,650	MISC	86919	Heisen Global Engineering (HGE)



#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
48	Water Treatment Tank 2 Cleaning		\$120,000	19	85153	INDUCHEM SERVICES
49	Boiler Hydroblasting	Service Upon Request Agreement	\$120,000	19	80903	INDUCHEM SERVICES
50	Condenser Discharge Tube and Tunnel Cleaning		\$155,691	38	81017	INDUCHEM SERVICES
51	Lead Removal and Disposal Works - Structural Repairs Units 1-6	Emergency Procurement	\$150,000	12	86566	J R INDUSTRIAL CONTRACTORS INC
52	Insulation Repair Works in Boiler 5	Service Upon Request Agreement	\$450,000	37	86283	J R INDUSTRIAL CONTRACTORS INC
53	Integration of Raw Water Pumps Controls into DCS Foxboro	Service Upon Request Agreement	\$145,606	43	85590	LT AUTOMATION
54	Integration of Metering Station into DCS	Service Upon Request Agreement	\$92,110	43	83009	LT AUTOMATION
55	Foxboro Controls Advantage Upgrade (Contract not used)	Service Upon Request Agreement	\$0	43	82159	LT AUTOMATION
56	Multimedia filter replacement for new water treatment plant	Service Upon Request Agreement	\$247,755	MISC	81974	LT AUTOMATION
57	Controls from interconnection work, all condensate water tanks	Service Upon Request Agreement	\$46,232	24	65206	LT AUTOMATION
58	Relocation of Foxboro monitors and power circuits for opacity meters		\$66,500	43	87275	LT AUTOMATION
59	Integration of Demineralizer Controls into DCS	Service Upon Request Agreement	\$53,100	43	84651	LT AUTOMATION / Schneider



#	Procurement Description	Procurement Type*	Cost	Associated Workstream #	Contract #	Contractor Name
60	Condensate Recirculating Discharge Pipe (12 ft diameter)	Emergency Procurement	\$975,000	39	86664	MALNAT ASOCIADOS
61	Underwater Visual Inspection of the Tunnels Condenser 5 and 6	Emergency Procurement	\$83,100	9	86495	MARINE DIVING CONTRACTORS
62	Overhead Crane Installation and Commissioning		\$1,553,502	36	82717	MASTER LINK CORPORATION
63	Turbine-Generator Inspection Work	Emergency Procurement	\$54,000	61	87153	MECHANICAL DYNAMICS ANALYSIS.3
64	Necessary Office Supplies		\$2,513	MISC	87240	PR OFFICE SOLUTIONS
65	Structural Repairs Condensate Tank 5	Emergency Procurement	\$345,468	22	86704	R G ENGINEERING INC
66	Repairs on fire protection systems	Service Upon Request Agreement	\$115,000	MISC	84101	R G ENGINEERING INC
67	Project Management Support	Other	\$58,635	11	85215	SCOTTMADDEN, INC
68	Cargo Elevators Repairs	Service Upon Request Agreement	\$20,545	41	82412	VERTECH INC
69	Existing Overhead Crane Units 3 and 6, Certification		\$34,412	25	84013	VITAL ENERGY CORPORATION
		\$14,814,104				





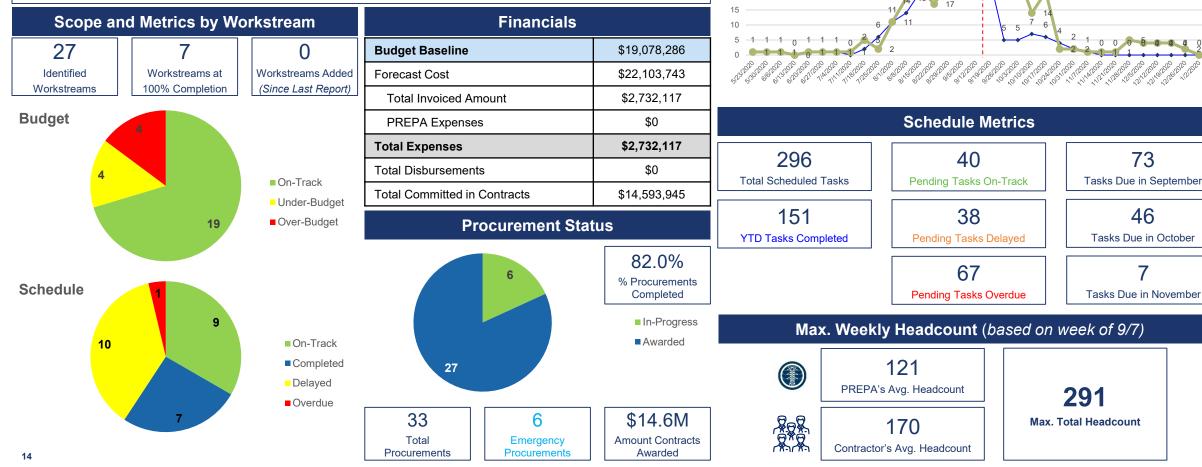
### **Unit 6 Status Overview**



# **Unit 6 Executive Summary**

#### Management Notes:

- Turbine inspection report indicated additional damages previously not considered in the scope of the project. Key damages include repairs in the control valve cabinet and a 6-inch crack in one of the bonnet bolts of the Main Stop Valve (MSV)
  - The control valve cabinet was found to have broken support bolts and the entire enclosure moved away from the \_ mounting location by a significant amount
- Impacts of additional repairs include approximately \$2.7M of incremental cost and a 6-week delay in the projected start-up date; project forecast end date will be issued on the next report
- PMO is actively working to minimize budget impacts of additional scope by revisiting scope and forecast cost of all identified workstreams



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#### Schedule Work Breakdown



Projected or Completed Tasks

Baseline Tasks

27

# **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	\$622,000	PREPA, Acumenian, Fusionworks, ScottMadden	42%	5/22/2020	11/24/2020	On Track	12	4
2	Emergency Declaration	\$0	PREPA	100%	6/18/2020	6/18/2020	Completed	1	0
3	Lead Removal Works	\$150,000	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)	95%	7/27/2020	9/14/2020	On Track	60	7
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	\$15,000	Vertech	-	8/15/2020	9/14/2020	On Track	0	0
9	Crane Repairs	\$830,000	Master Link	0%	TBD	TBD	Delayed	0	1
10	Air-Preheater Repairs	\$1,347,845	JC Mechanical Industrial Services LLC	100%	8/17/2020	9/9/2020	Completed	1	0
11	Balance of Plant Works	\$230,226	TBD	-	6/1/2020	TBD	On Track	0	0
12	Boiler Repair Works	\$2,378,708	PREPA	34%	6/1/2020	11/27/2020	Delayed	1	12



# 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	\$500,000	PREPA	55%	8/25/2020	9/29/2020	Delayed	0	1
14	Condensate Circulating Water System Repairs	\$1,111,325	Environics Engineers, Malnat	85%	6/29/2020	10/6/2020	On Track	2	1
15	Condensate Storage Tank Demolition, Design, and New construction	\$962,513	TBD	42%	7/1/2020	12/14/2020	On Track	2	2
16	Demineralized Water Tank Repairs (pending tasks not included since they are not needed for start-up)	\$0	-	-	6/1/2020	TBD	On Track	0	0
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	\$1,340,809	PREPA, AIT Technologies, Engineering Services, ESI, LT Automation	22%	6/24/2020	10/27/2020	Delayed	2	47
19	Line and Safety Valves Repairs	\$186,723	Ensysa	40%	8/6/2020	10/2/2020	On Track	0	1
20	Mechanical Inspection, Repair & Alignment (Heaters, Fans, Pumps, and Valves)	\$550,000	PREPA	4%	8/17/2020	10/21/2020	On Track	1	23
21	Pipe Type Cable Repairs	\$57,500	TBD	0%	9/23/2020	10/23/2020	Delayed	0	1
22	Stack, Insulation, and Refractory Works	\$749,676	JR Industrial Contractors	40%	8/4/2020	11/15/2020	Delayed	3	4
23	Turbine-Generator Repairs	\$7,022,342	PREPA, MD&A	15%	8/12/2020	TBD	Delayed	4	27
24	Cooler Main Oil Tank Cleaning and Repairs	\$70,000	JR Industrial Contractors	25%	9/1/2020	9/25/2020	Overdue	0	1



# 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%	TBD	TBD	Delayed	0	1
26	MPT 6 Secondary Containment Repair Works	\$29,550	5 Senses Solutions	75%	4/16/2020	10/22/2020	Delayed	0	1
27	Operational Test and Control Tasks Unit 6	\$0	PREPA	0%	11/27/2020	TBD	Delayed	0	11
MISC	Miscellaneous Expenses and Other Contracts	\$257,157	Heinsen Global Engineering (HGE), LT Automation		8/3/2020	TBD	On Track	0	0
	Total	\$22,103,743				<u> </u>			



### **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:

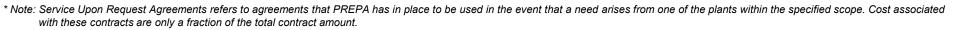
#	Procurement Description	Procurement Type*	Est. Amount	Status	Target Date
1	Oil Cooler Internal and External Cleaning	-	\$35,000	Awarded (Induchem)	10/02/20
2	Mitigation Contract – Mechanical Repairs with Stamp R (Boiler)	Service Upon Request Agreement	\$250,000	Contract Available When Needed	TBD
3	Mitigation Contract – Mechanical Repairs without Stamp R	Service Upon Request Agreement	\$450,000	Contract Available When Needed	TBD
4	Mitigation Contract – Electrical and Instrumentation Repairs	Service Upon Request Agreement	\$125,000	Contract Available When Needed	TBD
5	New Natural Gas Ignitors	TBD	\$1,928,000	In-Planning Stage	TBD
6	Pipe Type Cable Repairs	TBD	\$57,500	In-Planning Stage	TBD
		\$2,845,500			

\* 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*	Est. Amount	Contract #	Vendor Name
1	MPT 6 Secondary Containment Repair Works	Emergency Procurement		86581	5 SENSES SOLUTIONS LLC.
2	Project Management and Data Analytics Support	Other	\$260,000	87670	ACUMENIAN LLC
3	Civil, electrical and mechanical repairs to the Excitation Control Room Unit 6	Emergency Procurement	\$170,000	87646	AIT TECHNOLOGIES
4	Turbine Oil Flush		\$59,895	80175	ALLIED POWER TECHNOLOGIES
5	Design & Construction of a New Water Condensate 6	Request for Proposal Process	\$845,013	87958	ALONSO CARUS IRON WORKS INC
6	Scaffolding Services	Service Upon Request Agreement	\$425,000	84611	BRAND ENERGY INFRASTRUCTURE
7	Structural Repairs Unit 1-6	Request for Quotes (RFQs)	\$1,348,000	86331	CARIBE GE INTERNATIONAL ENERGY
8	Desuperheater Link Repairs		\$1,694,370	87333	CARIBE GE INTERNATIONAL ENERGY
9	Boiler Tube Purchase (Bifurcate)		\$137,564	87998	CARIBE GE INTERNATIONAL ENERGY
10	Asbestos Removal & Disposal Works Unit 5	Emergency Procurement	\$100,000	86559	Caribe Hydroblasting





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

#	Procurement Description	Procurement Type*	Est. Amount	Contract #	Vendor Name
11	Project Management Services	Other		84270	CPM PR LLC
12	Transformer Testing		\$48,000	87169	ENGINEERING SERVICES
13	Safety Line Valves Repairs		\$186,723	85203	ENGINEERING SYSTEMS SALES
14	Condenser Tube Cleaning and Outlet Boxes		\$193,325	84917	ENVIRONICS ENGINEERING
15	Lead Paint and Asbestos Sampling Analysis			87203	Environmental Health & Safety Services
16	Project Financial Controls Support		\$30,000	2020-P00087	FUSIONWORKS
17	Boiler Assessment	Service Upon Request Agreement	\$450,000	TBD	GE FIELDCORE
18	Boiler Hydroblasting	Service Upon Request Agreement	\$125,000	80903	INDUCHEM SERVICES
19	Lead Removal and Disposal Works - Structural Repairs Units 1-6	Emergency Procurement	\$150,000	86566	J R INDUSTRIAL CONTRACTORS INC
20	Stack cleaning , painting, refractory, and insulation work	Service Upon Request Agreement	\$600,000	86283	J R INDUSTRIAL CONTRACTORS INC
21	Replacement of Baskets Air Pre-heaters Baskets Unit 6	Emergency Procurement	\$387,705	87663	JC MECHANICAL INDUSTRIAL SERVICES LLC



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

#	Procurement Description	Procurement Type*	Est. Amount	Contract #	Vendor Name
22	Reverse Osmosis Filter Membrane Installation for Water Treatment		\$120,196	87433	LT AUTOMATION
23	Condenser Discharge Tube Unit 6	Emergency Procurement	\$918,000	87630	MALNAT ASOCIADOS
24	Turbine and Generator Repairs		\$6,170,604	87501	MECHANICAL DYNAMICS ANALYSIS.3
25	Project Management Support	Other	\$30,000	85215	SCOTTMADDEN, INC
26	Cargo Elevators Repairs	Service Upon Request Agreement	\$15,000	82412	VERTECH INC
27	Consumables (rods, angles, gases, etc.)	Service Upon Request Agreement	\$100,000	TBD	





### Appendix



## **Emergency Management KPI Dashboard**

			t of Service Installed Generation	Maximum Capacity	
Power Plant	Unit	Power Plant Type	(MW)	(MW)	Expected date to be online*
San Juan	7	Base Load	100	70	TBD
Palo Seco	4	Base Load	216	145	TBD
Costa Sur	6	Base Load	410	410	January 15, 2021
Aguirre CC	Stag 2 (2-2)	Base Load	50	50	September 25, 2020
Aguirre CC	Steam 2	Base Load	96	50	TBD
Aguirre Hidrogas	2-1	Peaker	21	21	TBD
Palo Seco Hidrogas	1-2	Peaker	21	19	TBD
Palo Seco Megagens	1, 2, 3	Peaker	66	66	Available for Emergencie
Costa Sur Hidrogas	1-1	Peaker	21	21	TBD
Costa Sur Hidrogas	1-2	Peaker	21	21	TBD
Yabucoa	1-2	Peaker	21	20	TBD
Vega Baja	1-2	Peaker	21	19	TBD
Sub-Total			1064	912	
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			1480	977	

AS OF SEP 15, 2020

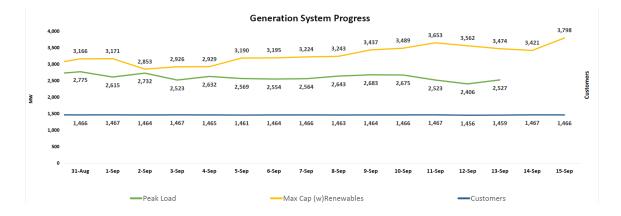
CUSTOMERS ENERGIZED

99.91%

1,466,972

DEMAND (MW)

**2376** 



			Installed	Maximum Capacity	Actual Generation
Power Plant	Unit	Power Plant Type	Generation (MW)	(MW)	(MW)
San Juan	8	Base Load	100	70	0
San Juan	9	Base Load	100	86	83
Palo Seco	3	Base Load	216	100	100
Costa Sur	5	Base Load	410	310	284
Aguirre	1	Base Load	450	400	260
Aquirre	2	Base Load	450	450	235
Aquirre CC	Stag 1	Base Load	296	180	0
Aquirre CC	Steam 1	Base Load	96	36	0
Aguirre CC	Stag 2	Base Load	296	145	0
San Juan CC	CT 5	Base Load	160	160	138
San Juan CC	STG 5	Base Load	60	60	42
San Juan CC	CT 6	Base Load	160	160	137
San Juan CC	STG 6	Base Load	60	60	45
Cambalache	2	Peaker	82.5	75	0
Cambalache	3	Peaker	82.5	73	0
Daguao	1-1	Peaker			0
	1-1	Peaker	18	18	
Daguao			21	16	0
Aguirre Hidrogas	2-2	Peaker	21	21	0
Palo Seco Hidrogas	1-1	Peaker	21	19	0
Palo Seco Hidrogas	2-1	Peaker	21	21	0
Jobos	1-2	Peaker	21	19	0
Jobos	1-1	Peaker	21	18	0
Mayaguez	1	Peaker	55	25	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
Vega Baja	1-1	Peaker	21	21	0
Hidroeléctricas		Peaker	26	26	2
EcoEléctrica	1	Base Load	177	177	168
EcoEléctrica	2	Base Load	177	177	168
ECO	Steam	Base Load	176	176	169
AES	1	Base Load	262	258	257
AES	2	Base Load	262	257	256
Sub - Total			4505	3766	2344
Renewables		Renewables	194	32	32
Total			4699	3798	2376
mayayuez	۷.	геаке	55	55	0
Mayaguez	3	Peaker	55	25	0
Mayaguez	4	Peaker	55	50	0
Yabucoa	1-1	Peaker	21	18	0
Vega Baja	1-1	Peaker	21	21	0
Hidroeléctricas		Peaker	26	26	2
EcoEléctrica	1	Base Load	177	177	168
EcoEléctrica	2	Base Load	177	177	168
ECO	Steam	Base Load	176	176	169
AES	1	Base Load	262	258	257
AES	2	Base Load	262	257	256
Sub - Total	2	Dusc Loud	4505	3766	2344
Renewables		Renewables	194	32	32
Renewables		TCHEWable3	194	32	32

4699

3798

2376

**Progress of Critical Generation System** 

Total

# **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> <li>Establish governance, provide direction and oversight to broader project team</li> <li>Assign resources, resolve conflicts and risks, and approve execution plan</li> <li>Manage stakeholder communications and engagement</li> </ul>
Management Team	<ul> <li>Review project needs, issues, risks, and plans; resolve or escalate as needed</li> <li>Provide input, feedback, and direction to the Execution and Procurement Team</li> <li>Provide oversight of the contractors/vendors supporting the project</li> </ul>
Procurement Team	<ul> <li>Manage the procurement of goods and services needed to support the Execution Team</li> <li>Provide regular status updates on all procurements</li> <li>Escalate issues, risks, and/or concerns as needed</li> </ul>
Execution Team	<ul> <li>Manage the project scope, budget, and schedule</li> <li>Engage regularly with controls team to provide timely and accurate update on execution</li> <li>Manage contractors/vendors supporting the project</li> </ul>
Controls Team	<ul> <li>Collect data and information related to the project scope, budget, and schedule</li> <li>Develop and maintain master project schedule</li> <li>Provide project information and progress to the Reporting Team</li> </ul>
Reporting Team	<ul> <li>Develop standard project status progress reports</li> <li>Manage stakeholder needs and request for communications</li> </ul>
PREB/FOMB Interface Team	<ul> <li>Identify stakeholder engagement and communication needs</li> <li>Communicate with Management and Executive Team on stakeholder requests</li> <li>Review all communications issued to the stakeholder group</li> <li>Provide interface support with stakeholder groups</li> </ul>
FEMA Interface Team	<ul> <li>Identify stakeholder engagement and communication needs</li> <li>Communicate with Management and Executive Team on stakeholder requests</li> <li>Review all communications issued to the stakeholder group</li> <li>Provide support to secure funding and any associated documentation</li> <li>Provide interface support with FEMA</li> </ul>

