NEPR

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### GOVERNMENT OF PUERTO RICO PUBLIC SERVICE REGULATORY BOARD PUERTO RICO ENERGY BUREAU

CASE NO.: NEPR-MI-2021-0004

**IN RE:** REVIEW OF LUMA'S INITIAL

**BUDGETS** 

**SUBJECT**: Motion to Submit Presentation of the PREPA Generation and HoldCo FY23 Budget

### MOTION TO SUBMIT PRESENTATION OF THE PREPA GENERATION AND HOLDCO FY23 BUDGET

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COMES NOW the Puerto Rico Electric Power Authority (PREPA), through its counsel of record, and respectfully submits and prays as follows:

- 1. After several procedural events, on August 25, 2022, the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") issued a *Resolution and Order* ("August 25 Order") amending the procedural calendar followed in the case of caption and scheduling a virtual technical conference that would be held on September 13, 2022 ("September 13 Technical Conference") and during which PREPA and LUMA Energy, LLC ("LUMA") were to discuss the proposed FY2023 Annual Budgets.
- 2. PREPA and LUMA appeared at the virtual September 13 Technical Conference. During the Energy Bureau's opening statement, it was stated that the parties would not be allowed to make presentations or opening remarks. This was the first time that PREPA was put on notice of the decision. The Energy Bureau questioned LUMA about the proposed FY23 Annual Budgets and there was not enough time left to go over the Generation and HoldCo budgets, which are PREPA's responsibility. After several procedural events, per the *Resolution and Order* entered on September

20, 2022, the continuation of the September 23 Technical Conference will take place on October

18, 2022 ("October 18 Technical Conference").

3. As it is customary for the virtual technical conferences to which PREPA appears before

the Energy Bureau, PREPA had already put together a presentation for the September 13 Technical

Conference in which it discussed the FY2023 Annual Budgets. The presentation was intended as

a guide to lead the discussion of the budgets and the rationale behind the allocations that PREPA

made. However, if the Energy Bureau maintains its determination not to allow the projection of

presentations during the FY23 Annual Budget technical conferences, PREPA understands that its

presentation is a tool that will aid the Energy Bureau's evaluation of the Generation and HoldCo

FY23 Budgets, even if it not used during the technical conferences. The presentation titled *PREB* 

Technical Conference FOMB Certified FY2023 Budget October 18, 2022 is attached as Annex A

to this motion.

WHEREFORE, it is respectfully requested that the Energy Bureau take notice and accepts

the presentation titled PREB Technical Conference FOMB Certified FY2023 Budget October 18,

2022 presented as Annex A to this motion.

RESPECTFULLY SUBMITTED.

In San Juan Puerto Rico, this 17<sup>th</sup> day of October 2022.

s/ Katiuska Bolaños-Lugo

Katiuska Bolaños-Lugo

TSPR No. 18,888

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### **CERTIFICATE OF SERVICE**

It is hereby certified that I have filed the foregoing with the Clerk of the Energy Bureau using the electronic filing system and also that I have served a copy to Margarita Mercado Echegaray, <a href="margarita.mercado@us.dlapiper.com">margarita.mercado@us.dlapiper.com</a>.

In San Juan Puerto Rico, this 17<sup>th</sup> day of October 2022.

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

### Annex A



# Puerto Rico Electric Power Authority (PREPA)

PREB Technical Conference FOMB Certified FY2023 Budget October 18, 2022

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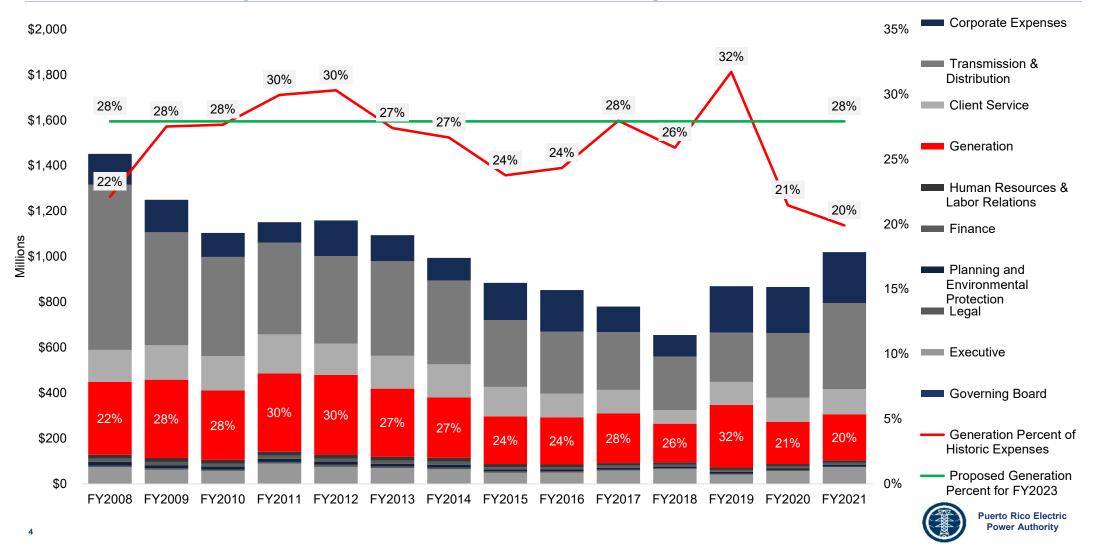
Future events and actual results may differ materially from any estimates, projections, or statements contained herein. Nothing in this document should be considered as an express or implied commitment to do or take, or to refrain from taking, any action by PREPA, the Government, or any government instrumentality in the Government or an admission of any fact or future event. Nothing in this document shall be considered a solicitation, recommendation or advice to any person to participate, pursue or support a particular course of action or transaction, to purchase or sell any security, or to make any investment decision. By receiving this document, the recipient shall be deemed to have acknowledged and agreed to the terms of these limitations. This document may contain capitalized terms that are not defined herein or may contain terms that are discussed in other documents or that are commonly understood. You should make no assumptions about the meaning of capitalized terms that are not defined, and you should refer questions to PREPA should clarification be required.

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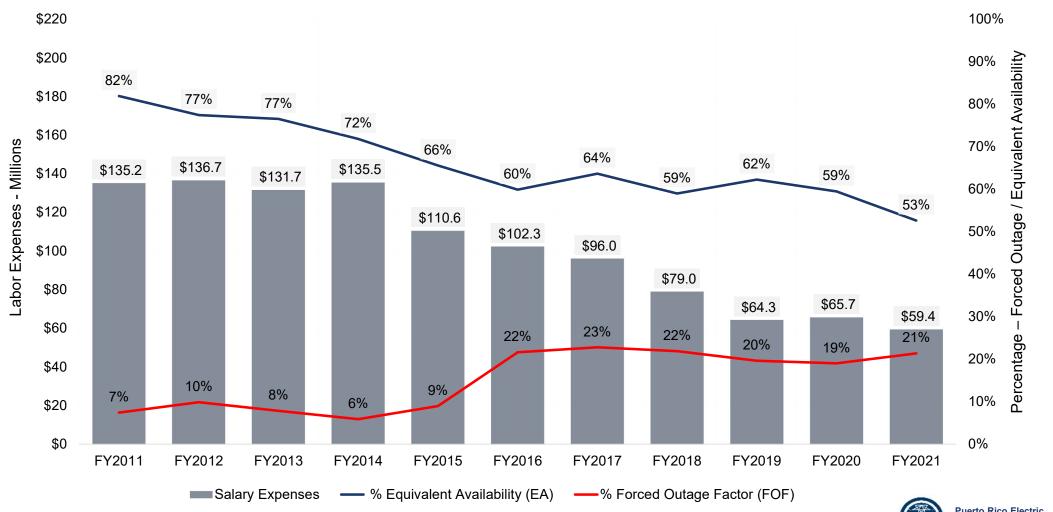
FOMB Certified FY2023 Generation Budget



# **Generation Expenditures as % of Total Spend**

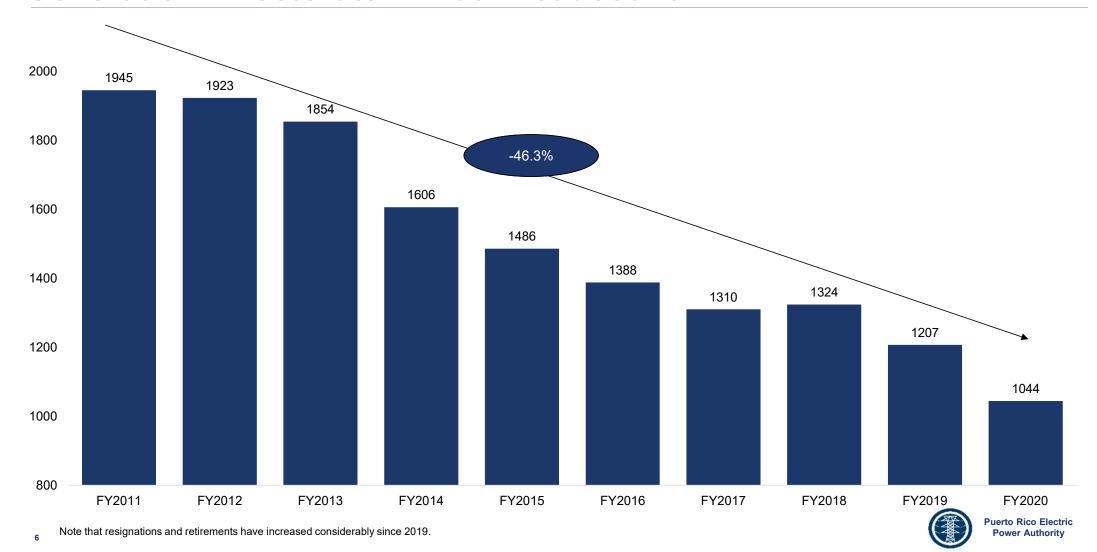


# **Generation Labor Expenses versus Plant Performance**



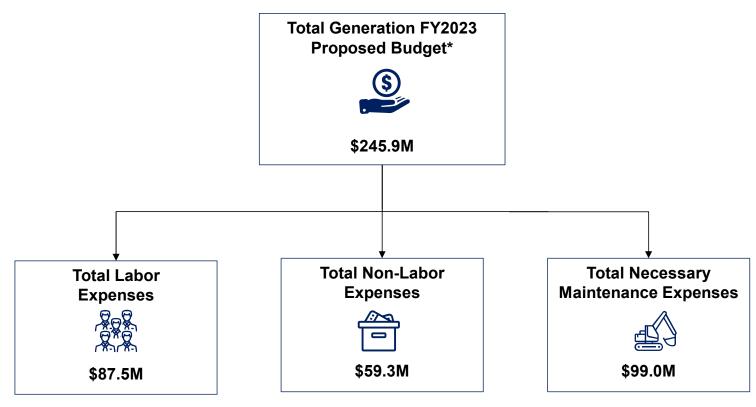
Puerto Rico Electric Power Authority

# **Generation Directorate Annual Headcount**



# **FOMB Certified FY2023 Generation Budget Overview**

FY2023 Budget Expenditures for Generation have three major components:
1) Labor Expenses, 2) Non-Labor Expenses, and 3) Necessary Maintenance Expenses



<sup>\*</sup> Before considering fuel costs for PREPA plants and before considering Shared Services costs intended to cover administrative support and other functions (currently performed by LUMA and historically performed by non-Generation PREPA directorates) for the benefit of the Generation directorate



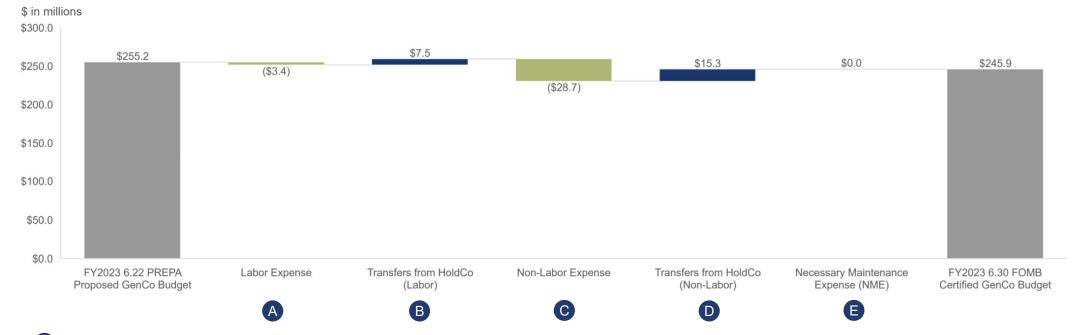
# FY2023 Generation Budget Development Overview



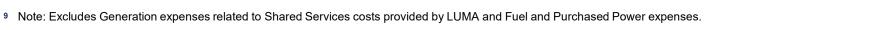
- PREPA utilizes a budgeting tool called Budget Online in which, as part of a bottoms-up process, users at the plant level enter budget requests to address expected needs in FY2023.
- The Generation Directorate's Budgeting Department scrutinizes budget requests by reviewing historical operational data, considering
  expected FY2023 performance, and discussing each request with respective plant managers.
- Once the preliminary review and due diligence is complete, the Generation Directorate's Budgeting Department develops budgeting reports by Responsibility and Division.
- These budgeting reports allow PREPA's Finance Directorate to review and analyze budget requests, taking into account expected revenues for the upcoming fiscal year.
- After an interactive process between the Generation and Finance Directorate, a recommended budget is presented to Executive Management for review, comment and finalization.
- The budget was presented and discussed with the FOMB, P3A, and LUMA, and revised and resubmitted by PREPA based on comments and feedback received.
- The final budget proposed and submitted by PREPA was then revised and adjusted by FOMB



# PREPA Proposed vs. FOMB Certified Generation Budget Bridge



- A Represents FOMB rejection of \$1.8MM in proposed salary increases and reduction of proposed overtime pay and benefits of roughly \$1.6 million.
- B Represents FOMB transfer from HoldCo budget to GenCo budget of 85% of PREPA requested amounts for Finance, HR and Admin Directorates.
- Represents top-down adjustments by FOMB to reduce GenCo budget to levels consistent with historical average actual expenditures.
- Represents transfers from HoldCo of Legal Services (\$7.4MM) and Regulation and Environmental Inspection (\$8.0MM) line-items.
- No change.





# PREPA Proposed vs. FOMB Certified Generation Budget Detail

(\$-thousands)	P	.22 FY23 PREPA roposed Budget	C	.30 FY23 FOMB Certified Budget	į	PREPA- FOMB Variance	PREPA- FOMB %-Variance
Genco:					-		
GenCo Labor Operating					į .		
Salaries & Wages	\$	42,680	\$	45,511	\$	2,831	7%
Pension & Benefits		26,204		28,904	į.	2,700	10%
Overtime Pay		13,061		11,733	1	(1,328)	-10%
Overtime Benefits		1,567		1,395		(172)	-11%
Total, Labor Operating Expenses	\$	83,512	\$	87,543	\$	4,031	5%
GenCo Non-Labor / Other Operating					į		
Materials & Supplies	\$	23,123	\$	19,795	: \$	(3,329)	-14%
Transportation, Per Diem & Mileage	·	1,527	·	1,527		-	0%
Security		11,527		9,043		(2,484)	-22%
Utilities & Rents		5,573		3,623	1	(1,951)	-35%
Professional & Technical Outsourced Services		6,333		2,392	1	(3,941)	-62%
Other Miscellaneous Expenses		24,542		7,565		(16,977)	-69%
Sub-Total, Non-Labor Operating Expenses	\$	72,626	\$	43,944	\$	(28,682)	-39%
Legal Services	\$	-	\$	7,405	\$	7,405	N/A
Regulation and Environmental Inspection		-		7,945	į	7,945	N/A
Total, Non-Labor / Other Operating	\$	72,626	\$	59,294	<b>\$</b>	(13,332)	-18%
Maintenance Projects Expense (NME)		99,039		99,039	İ	-	0%
Total Genco Operating & Maintenance <sup>1</sup>	\$	255,177	\$	245,876	\$	(9,301)	-4%
Memo: Total GenCo O&M excluding FOMB Transfers					-		
HoldCo Transfers				(22,819)		(22,819)	N/A
Total GenCo O&M excluding FOMB Transfers	\$	255,177	\$	223,057	\$	(32,120)	-14%

### **Management Notes**

#### GenCo Labor Operating Budgeted Expenses:

The primary drivers of Labor Operating expenses include (i) transfers from HoldCo of 85% of PREPA requested amounts for Finance, HR and Admin Directorates and (ii) FOMB rejection of \$1.8MM in proposed salary increases and reduction of proposed overtime pay and benefits, resulting in an overall net increase of 5%

### GenCo Non-Labor / Other Operating Budgeted Expenses:

 The primary drivers of the Non-Labor Operating expenses are top-down adjustments by the FOMB in an effort to bring expenses in line with historical averages, resulting in a net decrease of 39%

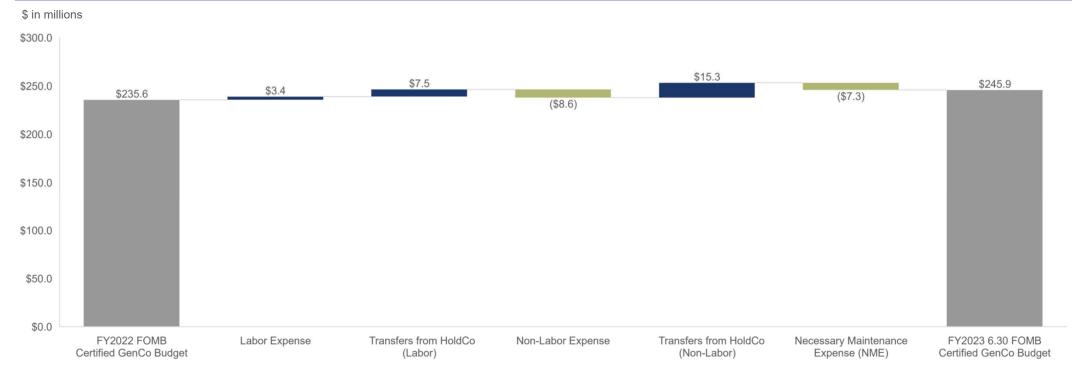
### GenCo Non-Labor / Other Operating Budgeted Expenses – Transferred from HoldCo:

 The primary drivers of the Non-Labor Operating expenses transferred from HoldCo include the transfer of the Legal Services (\$7.4MM) and Regulation and Environmental Inspection (\$8.0MM), resulting in a net increase.



<sup>1.</sup> Excludes Generation expenses related to Shared Services costs provided by LUMA and Fuel and Purchased Power expenses.

# **Generation Budget Bridge Summary – FY2022 versus FY2023**



The FOMB approved GenCo budget for FY2023 represents a \$10.3MM increases from FY2022, however, embedded in that amount is \$22.8MM of cost transfers from HoldCo (Finance, HR and Admin Directorate labor costs, Legal Services costs, and Regulation and Environmental Inspection costs).

Exclusive of these transfers the FOMB approved GenCo budget for FY2023 represents a \$12.6MM decrease from FY2022.



# **Generation Budget Bridge Detail – FY2022 versus FY2023**

(\$-thousands) <b>Genco:</b>	7.1 FY22 FOMB Certified Budget	C	.30 FY23 FOMB Certified Budget	:	⁄23-FY22 Variance	FY23-FY22 %-Variance
GenCo Labor Operating				į		
Salaries & Wages	\$ 33,180	\$	45,511	! \$	12,332	37%
Pension & Benefits	31,856		28,904		(2,952)	-9%
Overtime Pay	10,490		11,733	}	1,243	12%
Overtime Benefits	1,185		1,395	!	210	18%
Total, Labor Operating Expenses	\$ 76,711	\$	87,543	\$	10,832	14%
GenCo Non-Labor / Other Operating						
Materials & Supplies	\$ 18,000	\$	19,795	: \$	1,795	10%
Transportation, Per Diem & Mileage	1,500		1,527	į .	27	2%
Security	10,444		9,043	į	(1,402)	-13%
Utilities & Rents	5,568		3,623	į	(1,946)	-35%
Professional & Technical Outsourced Services	5,000		2,392	į	(2,608)	-52%
Other Miscellaneous Expenses	12,000		7,565	į	(4,435)	-37%
Sub-Total, Non-Labor Operating Expenses	\$ 52,513	\$	43,944	\$	(8,568)	-16%
Legal Services	\$ -	\$	7,405	<b>;</b> \$	7,405	N/A
Regulation and Environmental Inspection	-		7,945	į	7,945	N/A
Total, Non-Labor / Other Operating	\$ 52,513	\$	59,294	<b>\$</b>	6,781	13%
Maintenance Projects Expense (NME)	106,389		99,039	İ	(7,350)	-7%
Total Genco Operating & Maintenance <sup>1</sup>	\$ 235,612	\$	245,876	\$	10,264	4%
Memo: Total GenCo O&M excluding FOMB Transfers						
HoldCo Transfers	 		(22,819)	<u></u>	(22,819)	N/A
Total GenCo O&M excluding FOMB Transfers	\$ 235,612	\$	223,057	\$	(12,555)	-5%

### **Management Notes**

#### GenCo Labor Operating Budgeted Expenses:

 The primary driver of the Labor Operating expenses include transfers from HoldCo of 85% of PREPA requested amounts for Finance, HR and Admin Directorates, resulting in a net increase of 14%

### GenCo Non-Labor / Other Operating Budgeted Expenses:

 The primary driver of the Non-Labor Operating expenses include top-down adjustments by FOMB in effort to bring expenses in line with historical averages, resulting in a net decrease of 16%

### GenCo Non-Labor / Other Operating Budgeted Expenses – Transferred from HoldCo:

 The primary drivers of the Non-Labor Operating expenses transferred from HoldCo included the addition of the Legal Services (\$7.4MM) and Regulation and Environmental Inspection (\$8.0MM) categories, resulting in a net increase



<sup>1.</sup> Excludes Generation expenses related to Shared Services costs provided by LUMA and Fuel and Purchased Power expenses.

# Generation Labor Expense (FOMB Certified Budget)

(\$'s in thousands)	Headcount	Salaries & Wages	Pension & Benefits	Overtime Pay	Overtime Benefits	Total
Generation Admin & General	125	\$4,608	\$2,968	\$805	\$96	\$8,477
Aguirre Combined Cycle	79	3,346	2,161	814	97	6,418
Cambalache	38	1,581	1,016	444	53	3,094
Hydroelectric	23	827	531	112	13	1,483
Peakers	96	3,491	2,240	886	106	6,723
Mayaguez	16	662	427	149	18	1,256
Aguirre Steam	152	6,016	3,849	2,600	310	12,774
San Juan Cc & Steam	152	5,960	3,791	1,817	217	11,785
Costa Sur Steam	194	7,393	4,736	2,243	267	14,639
Palo Seco Steam	160	6,473	4,138	1,597	190	12,399
Other Labor Operating Expenses	17	653	348	26	3	1,030
Sub-Total	1052	\$41,010	\$26,204	\$11,493	\$1,370	\$80,078
Transfers from HoldCo <sup>1</sup>	97	4,501	2,700	239	25	7,465
Total	1149 <sup>2</sup>	\$45,511 <sup>3</sup>	\$28,904	\$11,733	\$1,395	\$87,543

### **Management Notes**

- 1. Transfers from HoldCo to GenCo were made by the FOMB on top-down basis. On August 30, 2022, PREPA sent a letter to the FOMB requesting that the transfers be reconsidered. As of the date of this presentation, PREPA has not received a response.
- 2. PREPA is currently facing an ongoing shortage of key operational personnel and a high proportion of key personnel eligible for retirement PREPA's leadership is acutely focused on ensuring the utility can retain and hire the necessary employees to responsibly operate the legacy generation units.
- 3. The final FOMB certified budget for FY2023 did not include salary increases that PREPA proposed to retain key employees and included reductions to overtime, but it does not include the full roster of operational employees requested.

The labor force shortfall has (i) forced PREPA's few specialized employees to regularly work 16-24 hour shifts to operate generating units and (ii) pushed PREPA to limit the available generating capacity of certain units.



# Generation Non-Labor Expense (FOMB Certified Budget)

			Regulation and		Transportation / Diets		
(\$'s in thousands)	Security	Legal Services <sup>1</sup>	Environmental <sup>1</sup>	Materials	and Mileage	Division Expenses <sup>2</sup>	Total
Generation Admin & General	\$9,043	-	-	\$920	\$213	\$5,075	\$15,251
Aguirre Combined Cycle	-	-	-	526	96	87	709
Cambalache	-	-	-	694	76	493	1,264
Hydroelectric	-	-	-	300	54	52	406
Peakers	-	-	-	1,745	231	246	2,222
Mayaguez	-	-	-	590	52	251	893
Aguirre Steam	-	-	-	2,562	217	614	3,393
San Juan Cc & Steam	-	-	-	6,368	102	2,412	8,882
Costa Sur Steam	-	-	-	3,340	351	2,354	6,046
Palo Seco Steam	-	-	-	2,749	133	1,996	4,878
Sub-Total	\$9,043	\$0	\$0	\$19,795	\$1,527	\$13,580	\$43,944
Transfers from HoldCo	-	7,405	7,945	-	-	-	15,350
Total	\$9,043	\$7,405	\$7,945	\$19,795	\$1,527	\$13,580	\$59,294

### **Management Notes**

- Category includes the purchase of non-capitalizable services, equipment and tools and materials that are essential and critical to carry out technical activities, including maintenance and repairs.
- These expenses are essential to ensure safe and reliable operation and maintenance of the generating units that make up the legacy generation fleet, and to meet the energy dispatch and load reserve requirements required during hours of regular and peak demand, as well as the hurricane season.
- PREPA management believes that the FOMB's reductions totaling \$13.3MM (18%) to PREPA's proposed budgets expenses in this category leave PREPA with very limited and potentially insufficient funding to prevent generation loss situations and to comply with the planned maintenance and repair program for generation assets.
- The reduction in the Materials & Supplies and Other Miscellaneous Expenses categories may reduce PREPA's ability to comply with the Certified Fiscal Plan, which requires implementation of an effective maintenance program, including preventative and proactive programs.

- 1. Reflects costs reallocated by the FOMB from HoldCo to GenCo.
- 2. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.



# HoldCo Expenses Reallocation to Generation (FOMB Transfers)

HoldCo Expense Transfer (\$'s in thousands)

### Summary of Expenses Transferred from HoldCo to GenCo

	FY2023 (\$)
Labor	\$7,469
Non-Labor	\$15,350
Legal Services	7,405
Regulation and Environmental Inspection	7,945
Total HoldCo Expense Transfer	\$22,819

- Labor Operating Expenses: 85% of PREPA-proposed amount for HoldCo Finance, HR and Admin Directorates; includes salaries & wages, pension & benefits, overtime pay and overtime benefits.
- Non-Labor Operating Expenses: Re-classified to GenCo.



### **Generation Administrative & General**

### **Budget Comparison (\$'s in thousands)**

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$8,373	\$15,943	<i>\$7,570</i>	90.4%
Non-Labor	\$18,818	\$30,601	\$11,782	62.6%
Materials (Parts & Equip.)	646	920	274	42.3%
Transportation / Mileage	213	213	1	0.3%
Division Expenses <sup>1</sup>	7,515	5,075	(2,440)	-32.5%
Total A&G Budget Expense	\$27,191	\$46,544	\$19,352	71.2%

### • Division Expenses includes

- Specialized professional and technical services contracts for the maintenance and repair of the control systems of power plants.
- Equipment vibration monitoring and data collection professional services contract for all the main power plants.
- Engineering and technical services contracts for condition assessment and preventative maintenance.
- Training Center Expenses including a catalog of courses has 112 trainings and 9 Technical Degrees
  - Accredited by the Puerto Rico Board of Education and our courses are validated as continuing education by the College of Engineers and Surveyors of Puerto Rico, the College of Electrical Experts of Puerto Rico and the College of Chemists of Puerto Rico.
  - Compliance training with: Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA), United States Coast Guard (USCG), Department of Homeland Security (DHS), Environmental Quality Board (DRNA-JCA), National Electrical Code (NEC), American Society of Mechanical Engineers (ASME), among others.



# **Generation Necessary Maintenance Expense**

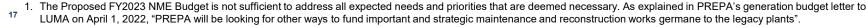
### **Breakdown by Division**

#### (\$ in thousands)

Division	FY2023 Budget	Project Count	Power Plant	FY2023 Budget	Project Count
Cara kuara			San Juan Combined Cycle Power Plant	\$19,550	6
San Juan Complex	\$32,725	12	San Juan Complex	\$12,375	5
Complex			San Juan Steam Plant	\$800	1
			Cambalache	\$3,200	3
			Culebra Power Station	\$20	1
			Frame 5000 Gas Turbine Units	\$400	1
			General	\$50	1
Hydrogas and Cambalache	\$18,275	19	Hydroelectric Units	\$3,500	3
Power Plants	φ10,273	19	Hydrogas Gas Turbine Peakers	\$3,400	2
			Jobos Power Station	\$300	1
			Mayaguez	\$7,050	3
			Palo Seco Power Station	\$275	2
			Vieques Power Station	\$80	2
Generation	\$22,540	14	All Power Plants	\$22,540	14
Aguirre	\$12,150	8	Aguirre Combined Cycle	\$1,800	2
Complex	φ12,130	0	Aguirre Power Plant	\$10,350	6
Costa Sur	\$4,740	5	Costa Sur Steam Plant	\$4,740	5
IT	\$6,000	3	п	\$6,000	3
Facilities	\$2,609	3	Facilities	\$2,609	3
Total	\$99,039	21	Total	\$99,039	64

### **Management Notes**

- The proposed FY2023 Generation NME Budget is composed primarily of repair related costs for critical generation plant infrastructure. The projects included in PREPA's final proposal were prioritized and selected with the strategic objective of preventing further performance degradation and improving reliability and available capacity while a private operator is selected and onboarded, and new generation capacity is contracted, built and integrated into the electric grid.
- The proposed FY2023 Generation NME Budget was prepared by means of a needs-based approach to come within the revenue allocation proposed by PREPA.¹ Plant managers and technical teams were involved throughout the budget proposal development to ensure a robust screening and selection process with the following overarching objectives:
  - Complete PREPA's ongoing legacy generating units' repair schedule, including hydrogas, steam, gas and combustion turbines, that started in FY2022 and are expected to conclude in FY2023.
  - Support the resilience of the electric power system by facilitating power restoration to customers after major events or disturbances, especially critical loads like health and safety installations.
  - Increase the reliability of the generation units and, thus, improving the reliability and safety of the electrical system, maintaining the quality of life of the customers.





# **GenCo Maintenance Schedule**

No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.   No.		CAP					FECHA	DE LA ULTIM	A CONSERV.	ACIÓN					2022 2023								$\neg$															
Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Style   Styl	UNID.		MANT.	CALDERA/CT					VALVULAS	DE TURBINA	CONTR	TURB. ALTA	TURB. INT.	TURB. BAJA	ENE	FEB	MAR	ABR	MAY			AGO	SEP	ост	NOV	DIC	ENE	FEB	MAR	ABR	MAY	$\overline{}$	$\overline{}$	AGO	SEP	ост	NOV	DIC
Section   15   15   15   15   15   15   15   1																_	_	_	_	_		Maint.	$\rightarrow$	_	_	$\rightarrow$	$\rightarrow$	-	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\rightarrow$	$\dashv$	$\rightarrow$	$\rightarrow$	$\rightarrow$	=	-
							_		_	_	_		_			1111	1111		1111	1111		-	-		-			_	_	$\rightarrow$	-	$\rightarrow$	$\rightarrow$	-	_			
1.   10   10   10   10   10   10   10	SJCT 6	160	7-Sep-13	5-Feb-15	N/A	N/A	1-Feb-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A								$\rightarrow$	_		Maist.	CI Feb. :	15, 2022	_	_	$\rightarrow$	-	$\rightarrow$	^*	Asjor Main	_			
1	SJ Vap 6	60	N/A	N/A	N/A	N/A	7-Jan-13	1-Sep-08	1-Sep-08	1-Sep-08	1-Sep-08	Jun-10	Jun-10	Jun-10				_				$\rightarrow$		ш	_	$\rightarrow$	$\rightarrow$	_							_			
1	SJ 7	100	02-Ang-08	05-Feb-15	01-Mar-13	30-Mar-23	2-Ang-08	2-Aug-08	2-Ang-08	2-Ang-08	Sep-11	2-Aug-08	2-Ang-08	2-Aug-08	BFP 7-	& Conde	nser dean	ng.	•			$\rightarrow$	_			_	_			1111	1111	1111	II No	ajor (NG Cr	onversion	& Env. M	ar. 30, 20	23
19   19   19   19   19   19   19   19	SJ 8	100	18-Nov-10	05-Feb-15	01-Aug-10	16-Dec-22	18-Nov-10	30-Oct-13	30-Oct-13	30-Oct-13	30-Oct-13	18-Nov-10	18-Nov-10	18-Nov-10												_	Env. Dec	16, 202	2	$\rightarrow$	_	_	$\rightarrow$	$\rightarrow$	$\rightarrow$			
1		100	15-Nov-19	15-Nov-19	01-Jul-11	12-Dec-22	4-Ang-12	4-Aug-12	4-Ang-12	4-Ang-12	4-Ang-12	4-Aug-12	4-Aug-12	4-Aug-12								_	_			_				$\rightarrow$		Anjor (NG	Conversi	ion & Env.			1111	1111
1   1   1   1   1   1   1   1   1   1	SJ 10	100	28-Sep-09	05-Feb-15	28-Sep-09	09-Apr-17	28-Sep-09	10-Oct-15	28-Sep-09	28-Sep-09	10-Oct-15	28-Sep-09	28-Sep-09	28-Sep-09	••••	••••	••••	••••											_				$\rightarrow$	$\rightarrow$	$\rightarrow$	_		$\overline{}$
State   188   1895   1895   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896   1896	PS 3	216	6-Nov-09	23-Oct-14	6-Mar-09	1-Jan-23	6-Nov-09	29-Sep-15	29-Sep-15	6-Nov-09	6-Nov-09	6-Nov-09	6-Nov-09	29-Sep-15					7			11	Heaters & C	ondense	er		111	Ш		111					$\rightarrow$	$\rightarrow$		-
Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   C	PS 4	216	13-May-09	23-Oct-14	1-Nov-08	3-Ang-22	12-Jun-19	12-Jun-19	12-Jun-19	12-Jun-19	12-Jun-19	12-Jun-19	12-Jun-19	12-Jun-19		1111	Ai Ai	Heater 8								_						Ш	Env. Se	p. 23, 202	3	$\rightarrow$	$\overline{}$	-
E.   10   10   10   10   10   10   10   1	CS 5	410	3-Jul-13	25-Sep-14	3-Jul-13	3-Feb-22	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	3-Jul-13	T	urbine failu	re & Gen.		81	WP & CCV	MP)	1			ш	1111		1 4	Asjor & Env	Oct. 31,	2022							
Section   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-200   196-	CS 6	410	Sep-12	25-Sep-14	1-Oct-09	3-Ang-22	3-Feb-21	3-Feb-21	3-Feb-21	3-Feb-21	3-Feb-21	3-Feb-21	3-Feb-21	3-Feb-21	Turbin	e failure &	-		_												1111	Er	n. July 7,	2023				
EVENT 16 NS. NS. NS. NS. NS. NS. NS. NS. NS. NS.	AG 1	450	27-Feb-12	10-Feb-15	Feb-12	1-Oct-22	27-Feb-12	27-Feb-12	27-Feb-12	27-Feb-12	27-Feb-12	27-Feb-12	27-Feb-12	23-Dec-08			1	Ш	1111	1111	1111	Major	& Reset En	v.												Env. D	ec. 2023	- 11
Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   Strong   S	AG 2	450	1-Mar-10	10-Feb-15	13-May-12	8-Mar-23	22-May-06	17-Dec-13	17-Dec-13	17-Dec-13	17-Dec-13	1-Dec-19	1-Dec-19	1-Dec-19	Mai	int. htr 7	Sector	Plate	Broken	Boiler			A	1 5	ienerator H	ydrogen :	Seats		1111	11	Env. Mar. 8	3, 2023						
Exercise   15   15   15   15   15   15   15   1	CC Vap I	96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A									$\neg$															
Part   181	CC Vap I	96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A																								
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	Eco CT 1	165																								$\neg$			1									
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	Eco CT 2	165																								$\neg$	Annual	faint.	1111									
St.	-	_																								$\neg$									$\neg$			
1   1   1   1   1   1   1   1   1   1	AFS 1	227													- 11	III	Major Ma	int.								$\neg$		- 11	Ahi	ual Main	L.	$\neg$						
Section   Process   Proc	-																				111	Aner	ual Maint.			$\neg$	$\neg$			$\neg$	$\neg$	$\neg$	$\neg$		$\neg$	$\neg$		$\neg$
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Projected Sixtems Elderico (MW) : 3,754   2,833   504   418   MANTENBRIENTO HIDROELECTRICAS   50   25   25   5   30   5   30   25   25   25   25   25   25   25   2	_		Ci-t Th			T-11-	APP	P	470	1						_			_	$\overline{}$		-	_	_	_	-	-	$\overline{}$	-	$\overline{}$	_	$\overline{}$	_	$\overline{}$	-	-	$\overline{}$	
Projectated Statemen Electrics (%)   70.6%   65%   95%   92%   MANT. DIAR, FORZ. Y LIMIT. HIDRO   42   44   40   62   37   62   43   19   19   19   19   19   19   19   1				ctrico				_				7.0000				_			-			$\overline{}$	_	$\overline{}$	_	$\overline{}$	_	_	_	-		_	$\overline{}$	_	-	-	$\overline{}$	
Stream Electrics - Actual Also Natural (AW)*: 3,167   2,261   501   405   58%   51%   95%   89%   95%   89%   95%   89%   95%   89%   95%   89%   95%   89%   95%   89%   95%   89%   95%   95%   89%   95%   95%   89%   95%   95%   89%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95%   95								100000	22.00							_		_		-	_	$\overline{}$	_	_	_	_	_	_	_	_	_	_	_	_	$\overline{}$	-	_	
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PUDIENT SAID INSTRUMBILIDAD TOTAL   62.22   78.15   29.87   49.92   77.44   62.23   79.96   60.04   72.00   73.06   68.71   70.34   67.34   67.04   67.07   67.06   68.71   70.94   67.07   67.06   68.71   70.94   67.07   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67.06   68.71   67	8 Para gar	antizar la	connabilidad	, en caso de	salidas forza	auas ei progra	ma							(MW)		_		_		_		$\overline{}$		_	_			$\overline{}$		_	_	$\overline{}$	_	_	_	$\overline{}$	_	
	pudiera	suitir cam	DIUS.							TO DE DISPON	BILIDAD TOTA	L.			02.22	78.13	39.8/	49.92	37.44	02.33	39.04	00.09	72.00	75.08	05./1	/V.34	0/.34	04.04	33.77	03.00	03.71	01.00	14.38	/5.20	76.20	04.82	72.00	04.72

# San Juan Complex

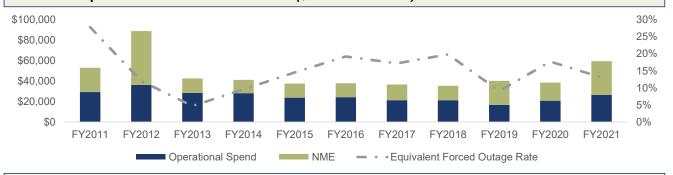
#### Overview - Units 5 & 6

	Location	San Juan, San Juan Region						
	Water	San Juan Bay and Puerto Rico Aqueduct and Sewer Authority (local municipal supply)						
Facility Overview	Plant Capacity	Nameplate: 220 MW (Unit 5) / 220 MW (Unit 6) Available + short-term outage: 220 MW (Unit 5) / 220 MW (Unit 6)						
ity O	COD	2008						
Facil	Technology	Dual Fuel CCGT						
	Fuel Type (Supplier)	Liquified Natural Gas (New Fortress Energy) & Diesel / Low-sulfur Fuel Oil No. 2 (Novum)						
	Control System	Emerson Ovation						
s,	Equivalent Availability <sup>1</sup>	64.4%						
/letri	Minimum Load	120 MW (Unit 5) / 120 MW (Unit 6)						
Operational Metrics	Heat Rate <sup>2</sup>	Full Load: 7,625 Btu/kWh / 7,853 Btu/kWh Min Load: 8,461 Btu/kWh / 8,856 Btu/kWh						
oerati	Ramp Rates	15 MW per minute up / 15 MW per minute down						
ŏ	Start-Up Times	30 minutes for the gas turbines (hot, warm and cold)						
ent	Combustion Turbine	Westinghouse/Siemens 501FC						
Major Equipment	Steam Turbine	Ansaldo Energia						
jor E	HRSG	Ansaldo Energia						
Ma	Environmental	Steam injection						

### **Budget Comparison (\$'s in thousands)**

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$11,874	\$11,785	(\$89)	-0.8%
Non-Labor	\$13,007	\$8,882	(\$4,125)	-31.7%
Materials (Parts & Equip.)	5,908	6,368	460	7.8%
Transportation / Mileage	102	102	-	0.0%
Division Expenses <sup>3</sup>	6,997	2,412	(4,586)	-65.5%
NME	\$44,240	\$32,725	(\$11,515)	-26.0%
Plant Budget	\$69,121	\$53,392	(\$15,729)	-22.8%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

• The majority of FY2023 Generation NME Budget is for projects at the San Juan Combined Cycle Power Plant, units 5 and 6, which are PREPA's most modern and environmentally compliant base load units with the capability to burn diesel or natural gas. Both units are forecasted to supply roughly 28.7% for the island with efficient, environmentally compliant, and reliable energy in FY2023.

- 1. Represents average from 2010 to 2021.
- 2. Heat rates reflect assumption based on historic operating experience.
- 3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.



# San Juan Complex (continued)

#### Overview - Units 7 - 10

	Location	San Juan, San Juan Region
	Water	San Juan Bay and Puerto Rico Aqueduct and Sewer Authority (local municipal supply)
Facility Overview	Plant Capacity	Nameplate: 100 MW (Unit 7) / 100 MW (Unit 8) / 100 MW (Unit 9) / 100 MW (Unit 10) Available + short-term outage: 100 MW (Unit 7) / 100 MW (Unit 8) / 100 MW (Unit 9) / 0 MW (Unit 10)
ility 0	COD	1964 (Units 7 & 8) / 1965 (Unit 9) / 1965 (Unit 10)
Faci	Technology	Steam Turbine
	Fuel Type (Supplier)	No. 6 Fuel Oil / Puma Energy
	Control System	Emerson Ovation
W	Equivalent Availability <sup>1</sup>	64.4%
/letric	Minimum Load	50 MW (Unit 7) / 50 MW (Unit 8) / 50 MW (Unit 9) / 50 MW (Unit 10)
Operational Metrics	Heat Rate <sup>2</sup>	Full Load: 10,497 Btu/kWh / 10,445 Btu/kWh Min Load: 10,498 Btu/kWh / 10,498 Btu/kWh
perati	Ramp Rates	3 MW per minute up / 3 MW per minute down
0	Start-Up Times	Hot: 3 hours; Warm: 6 hours; Cold: 8 hours
jor ment	Steam Turbine	General Electric
Ma Equip	Boiler	B&W (Units 7 & 8) / Combustion Engineering (Units 9 & 10)

#### Notes

- 1. Represents average from 2010 to 2021.
- 2. Heat rates reflect assumption based on historic operating experience.
- 3. NME expenditures for FY2023 include, but are not limited to the projects listed.

#### **Notes**

- These units are fueled with natural gas, which offers a reduction of 90% in SO2 emissions rates compared with diesel fuel oil within an area classified by the U.S. Environmental Protection Agency (EPA) as a non-attainment area.
- The largest project in the FY2023 Generation NME Budget is the \$10 million annual expenditure for the Natural Gas Manufacturing Surcharge paid to New Fortress Energy in equal amounts on a monthly basis.
  - The surcharge is a contractually required amount and is stated as being for the "reasonable and necessary current expense of making Natural Gas available" to PREPA.
- Additional FY2023 NME<sup>3</sup>: Unit 5 & 6 Payment for Operational Fire hours; Unit 6 Major Overhaul (Steam Turbine Replacement and CT Repairs)
- Facility is comprised of four units, each of which are 100 MW
- During the third quarter of FY2022, the EPA accepted PREPA's request to declare that Units 7 and 8 are no longer limited use units and, thus, they can be operated as baseload units.
- Units 9 and 10 have hydrochloric acid and hydrogen fluoride MATS limits. Compliance is demonstrated by fuel moisture content <1%; units are expected to be retired or mothballed in the near-term
- Limited use units, 7 and 8 are subject to a heat input limit of 8% averaged over a 24-month block
- Budgeted NME items in FY2023 include, but are not limited to:
  - Removal of existing steel raw water storage tank, as well as the design and build of a new 173,000 gallons steel raw water storage tanks and improvements to the existing tank's concrete base, and

Puerto Rico Electric

**Power Authority** 

 Replacement of the debris filter control system of the condensers to extend the life of the equipment and improve efficiency.

### Palo Seco

#### Overview - Units 3 & 4

	Location	Cataño, Bayamon Region
ı	Water Source	San Juan Bay and Puerto Rico Aqueduct and Sewer Authority (local municipal supply)
Facility Overview	Plant Capacity	Nameplate: 216 MW (Unit 3) / 216 MW (Unit 4) Available + short-term outage: 216 MW (Unit 3) / 216 MW (Unit 4)
lity C	COD	1967 (Unit 3) / 1968 (Unit 4)
Faci	Technology	Steam Turbine
	Fuel Type (Supplier)	No. 6 Fuel Oil (Puma Energy)
	Control System	N/A
	Equivalent Availability <sup>1</sup>	32.3%
ics	Net Capacity Factor <sup>1</sup>	25.5%
Meti	Minimum Load	80 MW (Unit 3) / 80 MW (Unit 4)
Operational Metrics	Heat Rate <sup>2</sup>	Full Load: 9,725 Btu/kWh Min Load: 10,347 Btu/kWh
Opera	Ramp Rates	3 MW per minute up / 3 MW per minute down
	Start-Up Times	Hot: 3 hours; Warm: 6 hours; Cold: 8 hours
jor ment	Steam Turbine	Westinghouse
Ma Equip	Boiler	Combustion Engineering

### **Budget Comparison (\$'s in thousands)**

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$11,610	\$12,399	\$789	6.8%
Non-Labor	\$2,835	\$4,878	\$2,043	72.1%
Materials (Parts & Equip.)	2,388	2,749	361	15.1%
Transportation / Mileage	133	133	-	0.0%
Division Expenses <sup>3</sup>	314	1,996	1,682	536.2%
NME	\$9,895	\$275	(\$9,620)	-97.2%
Plant Budget	\$24,340	\$17,552	(\$6,788)	-27.9%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

- FY2023 Forecasted Energy Production: ~11.3% of total load
- FY2023 NME4: Water Retention Tank Num. 3; Upgrade to Mark Vie
- Palo Seco Units 3 and 4 are the larger, bunker fuel-fired generating units located at the Palo Seco Steam Station

- 1. Per Sargent & Lundy 2021 Independent Engineering Reports (Equivalent Availability reflects average from 2015 2021 / Net Capacity reflects average from 2015-2022), Reflects original design full load heat rate, not current capability of units.
- 3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.
- 4. NME expenditures for FY2023 include, but are not limited to the projects listed.



# Palo Seco (continued)

### Overview - Units 1 & 2

	Location	Cataño, Bayamon Region		
Facility Overview	Water Source	San Juan Bay and Puerto Rico Aqueduct and Sewer Authority (local municipal supply)		
	Plant Capacity	Nameplate: 85 MW (Unit 1) / 85 MW (Unit 2) Available + short-term outage: 85 MW (Unit 1) / 0 MW (Unit 2)		
ity O	COD	1959		
Facil	Technology	Steam Turbine		
	Fuel Type (Supplier)	No. 6 Fuel Oil (Puma Energy)		
	Control System	N/A		
	Equivalent Availability <sup>1</sup>	43.6%		
rics	Net Capacity Factor <sup>1</sup>	12.6%		
al Met	Minimum Load	40 MW (Unit 1) / 40 MW (Unit 2)		
Operational Met	Heat Rate <sup>2</sup>	10,200 Btu/kWh		
Ope	Ramp Rates	Not applicable		
	Start-Up Times	Hot: 3 hours; Warm: 6 hours; Cold: 8 hours		
jor ment	Steam Turbine	General Electric		
Ma Equip	Boiler	Combustion Engineering		

#### **Notes**

- Palo Seco Units 1 and 2 are the oldest at this complex and are no. 6 fuel oil-fired generating units
- These units are limited use due to environmental regulations (EPA MATS)
- FY2023 NME<sup>3</sup>: New Water Condensate 1-2 Tank; Palo Seco 2-1 Major Inspection

- 1. Reflects average value by unit for 2015 2021 (equivalent availability) and 2015-2022 (net capacity factor).
  - 2. Reflects original design full load heat rate, not current capability of units.
  - 3. NME expenditures for FY2023 include, but are not limited to the projects listed.



# **Aguirre Steam**

#### Overview

Ovi	Overview			
	Location	Salinas, Ponce Region		
rview	Water Source	Jobos Bay and five local wells		
	Plant Capacity	Nameplate: 450 MW (Unit 1) / 450 MW (Unit 2) Available + short-term outage: 450 MW (Unit 1) / 450 MW (Unit 2)		
ŏ	COD	1971		
Facility Overview	Technology	Steam Turbine		
	Fuel Type (Supplier)	No. 6 Fuel Oil (Puma Energy)		
	Control System	ABB S90 Turbotrol (Unit 1) / Alstom BlueLine (Unit 2) Separate control room from Aguirre CC		
	Equivalent Availability <sup>1</sup>	61.6%		
rics	Net Capacity Factor <sup>1</sup>	37.8%		
al Meti	Minimum Load	200 MW (Unit 1) / 200 MW (Unit 2)		
Operational Metrics	Heat Rate <sup>2</sup>	Full Load: 9,600 Btu/kWh / 9,700 Btu/kWh Min Load: 9,940 Btu/kWh / 10,158 Btu/kWh		
ed O	Ramp Rates	5 MW per minute up / 5 MW per minute down		
	Start-Up Times	Hot: 4 hours; Warm: 8 hours; Cold: 16 hours		
jor ment	Steam Turbine	ABB		
Maj Equipr	Boiler	Combustion Engineering		

### Budget Comparison (\$'s in thousands)

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$10,678	\$12,774	\$2,096	19.6%
Non-Labor	\$2,605	\$3,393	\$788	30.2%
Materials (Parts & Equip.)	958	2,562	1,605	167.6%
Transportation / Mileage	217	217	-	0.0%
Division Expenses <sup>3</sup>	1,430	614	(817)	-57.1%
NME	\$19,200	\$10,350	(\$8,850)	-46.1%
Plant Budget	\$32,483	\$26,517	(\$5,966)	-18.4%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

- FY2023 Forecasted Energy Production: ~30.4% of total load
- FY2023 NME4: Boiler Improvement U-2; Two Motor Replacement for Motor Driven Boiler Feed Pumps
- Facility is anticipated to remain operational in the near term for system reliability / standby purposes

- 1. Per Sargent & Lundy 2021 Independent Engineering Reports (Equivalent Availability reflects average from 2015 2021 / Net Capacity reflects average from 2015-2022),
- 2. Heat rates reflect assumption based on historic operating experience.
- 3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.
- 4. NME expenditures for FY2023 include, but are not limited to the projects listed.



# **Aguirre Combined Cycle**

Location   Salinas, Ponce Region	50
Plant Capacity  Nameplate: 296 MW (Unit 1) / 296 MW (Unit 2) Available + short-term outage: 296 MW (Unit 1) / MW (Unit 2)  COD  1975-76 (Unit 1) / 1975-76 (Unit 2)  Technology  CCGT  Fuel Type (Supplier)  Diesel / Low-sulfur Fuel Oil No. 2 (Novum)  Control System  GE Mark V; Separate control room from Aguirre S  Equivalent Availability <sup>1</sup> 59.6%	50
Plant Capacity  Available + short-term outage: 296 MW (Unit 1) / MW (Unit 2)  COD  1975-76 (Unit 1) / 1975-76 (Unit 2)  Technology  CCGT  Fuel Type (Supplier)  Diesel / Low-sulfur Fuel Oil No. 2 (Novum)  Control System  Equivalent Availability <sup>1</sup> 59.6%	150
Fuel Type (Supplier)  Diesel / Low-sulfur Fuel Oil No. 2 (Novum)  Control System  GE Mark V; Separate control room from Aguirre S  Equivalent Availability <sup>1</sup> 59.6%	
Fuel Type (Supplier)  Diesel / Low-sulfur Fuel Oil No. 2 (Novum)  Control System  GE Mark V; Separate control room from Aguirre S  Equivalent Availability <sup>1</sup> 59.6%	
Control System GE Mark V; Separate control room from Aguirre S  Equivalent Availability¹ 59.6%	
Equivalent 59.6%	
Availability <sup>1</sup> 59.6%	team
0 11.0 11.7 1.4 10.001	
Net Capacity Factor <sup>1</sup> 13.6%	
Minimum Load 5 MW (Unit 1) / 5 MW (Unit 2) (gas turbines)	
Net Capacity Factor¹ 13.6%  Minimum Load 5 MW (Unit 1) / 5 MW (Unit 2) (gas turbines)  Heat Rate² Full Load: 11,140 Btu/kWh Min Load: 11,442 Btu/kWh  Ramp Rates 5 MW per minute up / 5 MW per minute down	
Ramp Rates 5 MW per minute up / 5 MW per minute down	
Start-Up Times 15 minutes for each gas turbine	
Combustion Turbine Original: General Electric 7B Current: General Electric 7EA (partial upgrade)	
Steam Turbine General Electric	

### **Budget Comparison (\$'s in thousands)**

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$6,632	\$6,418	(\$214)	-3.2%
Non-Labor	\$989	\$709	(\$280)	-28.3%
Materials (Parts & Equip.)	605	526	(79)	-13.0%
Transportation / Mileage	70	96	26	37.7%
Division Expenses <sup>3</sup>	314	87	(228)	-72.4%
NME	\$3,100	\$1,800	(\$1,300)	-41.9%
Plant Budget	\$10,721	\$8,927	(\$1,794)	-16.7%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

- FY2023 Forecasted Energy Production: ~1.2% of total load
- FY2023 NME: New Water Condensate Tank (including removal of existing tank)
- Facility utilizes obsolete technology and is only used for grid support / standby generation capacity

### HRSG Notes:

- 1. Per Sargent & Lundy 2021 Independent Engineering Reports (Equivalent Availability reflects average from 2015 2021 / Net Capacity reflects average from 2015-2022),
- 2. Heat rates reflect assumption based on historic operating experience.

Engineering (1994 and 1995)

Originally General Electric, Redone by Senior

3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.



### **Costa Sur**

#### Overview - Units 5 & 6

Location		Guayanilla, Ponce Region
Facility Overview	Water Source	Guayanilla Bay and PREPA deep well numbers 8, 9, 10 and 13
	Plant Capacity	Nameplate: 410 MW (Unit 5) / 410 MW (Unit 6) Available + short-term outage: 410 MW (Unit 5) / 410 MW (Unit 6)
	COD	1969 (Unit 5) / 1971 (Unit 6)
Facili	Technology	Steam Turbine
	Fuel Type (Supplier)	Liquified Natural Gas (Naturgy) & No. 6 Fuel Oil (Puma Energy)
	Control System	GE Mark VI
	Equivalent Availability <sup>1</sup>	66.0%
trics	Net Capacity Factor <sup>1</sup>	44.2%
al Me	Minimum Load	225 MW (Unit 5) / 225 MW (Unit 6)
Operational Metrics	Heat Rate <sup>2</sup>	Full Load: 9,747 Btu/kWh / 9,747 Btu/kWh Min Load: 9,935 Btu/kWh / 10,069 Btu/kWh
Ope	Ramp Rates	5 MW per minute up / 5 MW per minute down
	Start-Up Times	Hot: 4 hours; Warm: 8 hours; Cold: 12 hours
Major Equipment	Steam Turbine	General Electric 170X446
	Boiler	Combustion Engineering
	Environmental	Boiler converted to operate on natural gas

### Budget Comparison (\$'s in thousands)

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$15,264	\$14,639	(\$625)	-4.1%
Non-Labor	\$7,616	\$6,046	(\$1,570)	-20.6%
Materials (Parts & Equip.)	2,931	3,340	409	14.0%
Transportation / Mileage	351	351	-	0.0%
Division Expenses <sup>3</sup>	4,334	2,354	(1,979)	-45.7%
NME	\$3,700	\$4,740	\$1,040	28.1%
Plant Budget	\$26,581	\$25,425	(\$1,156)	-4.3%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

- FY2023 Forecasted Energy Production: ~22.7% of total load
- FY2023 NME4: Water Heater 6 Replacement Work; Procurement of Air-Preheaters Baskets, Unit 5
- Regasification at EcoElectrica enabled utilization of environmentally compliant / lower-cost natural gas

- 1. Per Sargent & Lundy 2021 Independent Engineering Reports (Equivalent Availability reflects average from 2015 2021 / Net Capacity reflects average from 2015-2022),
- 2. Heat rates reflect assumption based on historic operating experience.
- 3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.
- 4. NME expenditures for FY2023 include, but are not limited to the projects listed.



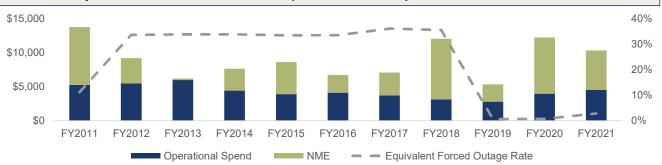
### Cambalache

Ov	Overview			
	Location	Arecibo, Arecibo Region		
Facility Overview	Water Source	Four adjacent well pump into raw water tank; Puerto Rico Aqueduct and Sewer Authority ("PRASA")(local municipal supply) provides potable water		
	Plant Capacity	Nameplate: 82.5 MW (Unit 1) / 82.5 MW (Unit 2) / 82.5 MW (Unit 3) Available + short-term outage: 0 MW (Unit 1) / 82.5 MW (Unit 2) / 82.5 MW (Unit 3)		
acility	COD	1997 (Units 1 & 2) / 1998 (Unit 3)		
F	Technology	ABB GT11 N1 simple cycle		
	Fuel Type (Supplier)	Diesel / Low-sulfur Fuel Oil No. 2 (Novum)		
	Control System	Alstom BlueLine		
	Equivalent Availability <sup>1</sup>	74.1%		
trics	Net Capacity Factor <sup>1</sup>	9.4%		
nal Me	Minimum Load	50 MW (Unit 1); 50 MW (Unit 2); 50 MW (Unit 3) (60% of rated load)		
Operational Metrics	Heat Rate <sup>2</sup>	Full Load: 11,549 Btu/kWh Min Load: 11,550 Btu/kWh		
	Ramp Rates	3 MW per minute up / 3 MW per minute down		
	Start-Up Times	17 minutes (hot, warm and cold)		
jor ment	Combustion Turbine	ABB-GT11N1		
Maj	HRSG	Innovalties Technology		

### **Budget Comparison** (\$'s in thousands)

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$2,823	\$3,094	\$271	9.6%
Non-Labor	\$1,449	\$1,264	(\$186)	-12.8%
Materials (Parts & Equip.)	792	694	(97)	-12.3%
Transportation / Mileage	76	76	-	0.0%
Division Expenses <sup>3</sup>	582	493	(88)	-15.2%
NME	\$3,655	\$3,200	(\$455)	-12.4%
Plant Budget	\$7,928	\$7,558	(\$370)	-4.7%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

- FY2023 Forecasted Energy Production: ~0.8% of total load
  - Despite low percentage of total load, generation plant critical to meet peak demand
- FY2023 NME<sup>4</sup>: Major Inspection Unit 1-3; Control System Power Plant Maintenance

- 1. Per Sargent & Lundy 2021 Independent Engineering Reports (Equivalent Availability reflects average from 2015 2021 / Net Capacity reflects average from 2015-2022),
- 2. Reflects heat rates for Units 2 & 3. Heat rates reflect assumption based on historic operating experience.
- 3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.
- 4. NME expenditures for FY2023 include, but are not limited to the projects listed.



# Mayagüez

Ovi	Overview			
	Location	Mayagüez, Mayagüez Region		
Facility Overview	Water Source	PRASA (local municipal supply)		
	Plant Capacity	Nameplate: 55 MW (Unit 1) / 55 MW (Unit 2) / 55 MW (Unit 3) / 55 MW (Unit 4) Available + short-term outage: 55 MW (Unit 1) / 55 MW (Unit 2) / 55 MW (Unit 3) / 55 MW (Unit 4)		
cility	COD	2009		
Fa	Technology	4 x Pratt & Whitney FT8 aeroderivative twin packs		
,	Fuel Type (Supplier)	Diesel / Low-sulfur Fuel Oil No. 2 (Novum)		
	Control System	Allen-Bradley		
	Equivalent Availability <sup>1</sup>	62.4%		
rics	Net Capacity Factor <sup>1</sup>	6.9%		
Operational Metrics	Minimum Load	0.5 MW (Unit 1) / 0.5 MW (Unit 2) / 0.5 MW (Unit 3) / 0.5 MW (Unit 4)		
eratior	Heat Rate <sup>2</sup>	Full Load: 9,320 Btu/kWh Min Load: 11,204 Btu/kWh		
odo	Ramp Rates	6 MW per minute up / 6 MW per minute down		
	Start-Up Times	10 minutes (hot, warm and cold)		
Major Equipment	Combustion Turbine Pratt & Whitney FT8 Twin packs			

### Budget Comparison (\$'s in thousands)

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$1,294	\$1,256	(\$38)	-2.9%
Non-Labor	\$1,071	\$893	(\$177)	-16.6%
Materials (Parts & Equip.)	739	590	(149)	-20.2%
Transportation / Mileage	52	52	-	0.0%
Division Expenses <sup>3</sup>	280	251	(28)	-10.1%
NME	\$5,000	\$7,050	\$2,050	41.0%
Plant Budget	\$7,364	\$9,199	\$1,835	24.9%

### Historical Spend and Performance Trends (\$'s in thousands)



#### **Notes**

- FY2023 Forecasted Energy Production: ~4.7% of total load
- FY2023 NME4: Aereoderivative Improvement; Demi Plant Improvement
- Fast start capability due to aero-derivative combustion turbine technology dispatched for peaking

- 1. Per Sargent & Lundy 2021 Independent Engineering Reports (Equivalent Availability reflects average from 2015 2021 / Net Capacity reflects average from 2015-2022),
- 2. Heat rates reflect assumption based on historic operating experience.
- 3. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.
- 4. NME expenditures for FY2023 include, but are not limited to the projects listed.



### **Peakers**

### **Peaking Gas Turbine Footprint**



### Budget Comparison (\$'s in thousands)

	FY2022 (\$)	FY2023 (\$)	Change (\$)	Change (%)
Labor	\$6,443	\$6,723	\$280	4.3%
Non-Labor	\$3,126	\$2,222	(\$903)	-28.9%
Materials (Parts & Equip.)	2,392	1,745	(647)	-27.1%
Transportation / Mileage	231	231	-	0.0%
Division Expenses <sup>2</sup>	502	246	(256)	-51.0%
NME	\$3,950	\$4,200	\$250	6.3%
Plant Budget	\$13,518	\$13,145	(\$374)	-2.8%

### Peaking Gas Turbine Capacity and Status<sup>1</sup>

	Number of Units	Nameplate Capacity
Aguirre	2	42 MW
Costa Sur	2	42 MW
Palo Seco	9	207 MW
Daguao	2	42 MW
Jobos	2	42 MW
Vega Baja	2	42 MW
Yabucoa	2	42 MW

### **Notes**

• All units are used for peaking, black start, and system reliability

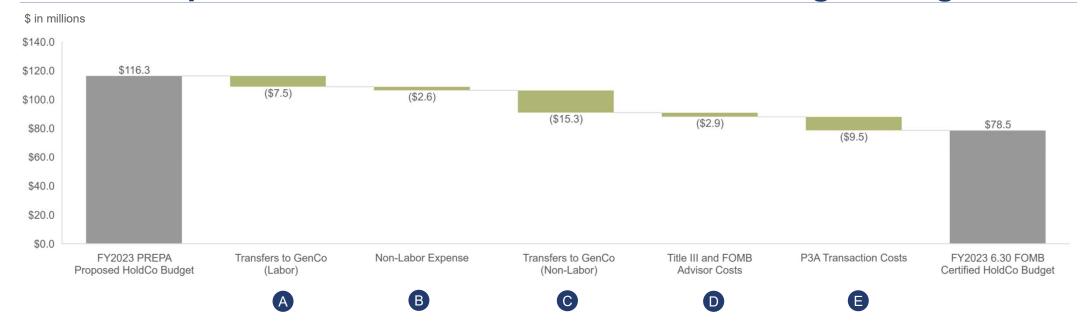
- 1. Information as of October 31, 2020.
- 2. Division Expenses reflects costs associated with the rental of office equipment, communication, professional services, data management, service orders, and service blankets.



FOMB Certified FY2023 HoldCo Budget



# PREPA Proposed vs. FOMB Certified – HoldCo Budget Bridge



- A Represents transfers to GenCo of 85% of PREPA requested amounts for Finance, HR and Admin Directorates.
- B Represents FOMB "drilldown adjustment" and other top-down adjustments to reflect estimated FY2022 actual expenditures.
- Represents transfers to GenCo of Legal Services (\$7.4MM) and Regulation and Environmental Inspection (\$8.0MM) line-items.
- D Represents FOMB 10% haircut of the PREPA proposed budget request.
- E Represents payment of P3A Transaction costs outside of the FY23 Certified Budget.



# FY2023 PREPA Proposed v. FOMB Certified HoldCo Budget

(\$-thousands)  HoldCo: HoldCo Labor Operating	P	.22 FY23 PREPA roposed Budget	C	30 FY23 FOMB Certified Budget		PREPA- FOMB Variance	PREPA- FOMB %-Variance
	_				_		
Salaries & Wages	\$	12,014	\$	7,513	\$	(4,501)	-37%
Pension & Benefits		7,208		4,508	ļ	(2,700)	-37%
Overtime Pay		679		439	¦	(239)	-35%
Overtime Benefits		81		53	<u> </u>	(29)	-35%
Labor Operating Expenses	\$	19,982	\$	12,513	\$	(7,469)	-37%
HoldCo Non-Labor / Other Operating							
Materials & Supplies	\$	366	\$	288	\$	(77)	-21%
Transportation, Per Diem, and Mileage		285		242	į .	(43)	-15%
Retiree Medical Benefits		9.000		9.000	į	-	0%
Utilities & Rents		55		36	į	(19)	-35%
Communications Expenses		81		81	į	-	0%
Professional & Technical Outsourced Services		2.841		4.144	į	1.303	46%
Other Miscellaneous Expenses		1,925		1,825	į	(99)	-5%
External Audit		2,509		-	į	(2,509)	-100%
IT Service Agreements		850		850	į	-	0%
Non-Labor / Other Operating	\$	34,461	\$	16,466	\$	(17,995)	-52%
Total HoldCo O&M excluding T3/FOMB/P3A	\$	54,443	\$	28,979	\$	(25,464)	-47%
Title III Costs		28,000		25,100	į	(2,900)	-10%
Total HoldCo O&M with PREPA T3	\$	82,443	\$	54,079	\$	(28,364)	-34%
FOMB Advisor Costs		24,400		24,400	į	-	0%
Total HoldCo O&M with PREPA T3/FOMB	\$	106,843	\$	78,479	\$	(28,364)	-27%
P3A Transaction Costs		9,500		-	į	(9,500)	-100%
Total HoldCo O&M with PREPA T3/FOMB	\$	116,343	\$	78,479	\$	(37,864)	-33%
Memo: Total HoldCo O&M excluding FOMB Transfers					!		
HoldCo Transfers		-		22,819	į	22,819	N/A
Total HoldCo O&M excluding FOMB Transfers	\$	116,343	\$	101,298	\$	(15,045)	-13%

### **Management Notes**

#### HoldCo Labor Operating Budgeted Expenses:

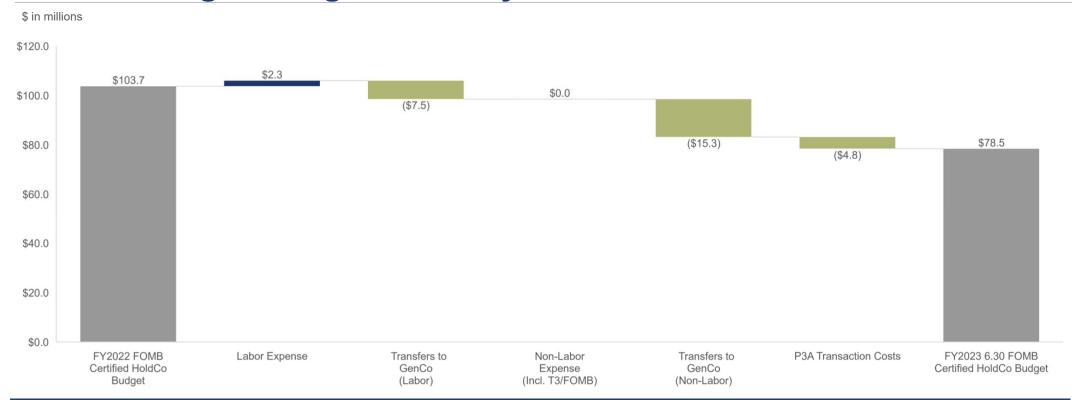
 The primary driver of the Labor Operating expenses is the transfer by the FOMB of 85% of requested amounts for Finance, Human Resources and Administrative Directorates to GenCo, resulting in a net decrease of 37%

### • HoldCo Non-Labor / Other Operating Budgeted Expenses:

The primary drivers of the Non-Labor Operating expenses include: (i) transfer of Legal Services (\$7.4MM) and Regulation and Environmental Inspection (\$8.0MM) expenses to GenCo and (ii) adjustments by the FOMB to reflect FY2022 actual expenditures, resulting in an overall net decrease of 52%



# **HoldCo Budget Bridge Summary – FY2022 versus FY2023**



The FOMB approved HoldCo budget for FY2023 represents a \$25.3MM decrease from FY2022. However, embedded in that amount is \$22.8MM of costs transferred to GenCo (Finance, HR and Admin Directorate labor costs / Legal Services and Regulation costs) and the removal of a P3A transaction cost obligation. Exclusive of these amount, the FOMB approved HoldCo budget for FY2023 represents a \$2.3MM increase in FY2022.



### **HoldCo Budget Bridge Detail – FY2022 versus FY2023**

(\$-thousands) HoldCo:	C	7.1 FY22 FOMB Certified Budget	c	30 FY23 FOMB Certified Budget	!	′23-FY22 Variance	FY23-FY22 %-Variance
HoldCo Labor Operating							
Salaries & Wages	\$	9.760	\$	7,513	; \$	(2,247)	-23%
Pension & Benefits	Ψ	7.365	Ψ	4,508	įΨ	(2,857)	-39%
Overtime Pay		506		439	İ	(67)	-13%
Overtime Benefits		58		53	I I	(5)	-9%
Labor Operating Expenses	\$	17,689	\$	12,513	\$	(5,176)	-29%
HoldCo Non-Labor / Other Operating							
Materials & Supplies	\$	166	\$	288	\$	122	74%
Transportation, Per Diem, and Mileage		242		242	İ	(0)	0%
Retiree Medical Benefits		11,800		9,000		(2,800)	-24%
Utilities & Rents		1		36		35	3501%
Communications Expenses		2		81		79	3962%
Professional & Technical Outsourced Services		4,144		1,635	-	(2,509)	-61%
Other Miscellaneous Expenses		1,825		1,825		-	0%
External Audit		-		2,509	 	2,509	N/A
IT Service Agreements		-		850	ļ	850	N/A
Non-Labor / Other Operating	\$	18,180	\$	16,466	\$	(1,714)	-9%
Total HoldCo O&M excluding T3/FOMB/P3A	\$	35,869	\$	28,979	\$	(6,890)	-19%
Title III Costs		38,722		25,100	<u> </u>	(13,622)	-35%
Total HoldCo O&M with PREPA T3	\$	74,591	\$	54,079	<b>\$</b>	(20,512)	-27%
FOMB Advisor Costs		24,400		24,400	<u> </u>	-	0%
Total HoldCo O&M with PREPA T3/FOMB	\$	98,991	\$	78,479	\$	(20,512)	-21%
P3A Transaction Costs		4,750			<u> </u>	(4,750)	-100%
Total HoldCo O&M with PREPA T3/FOMB	\$	103,741	\$	78,479	<b> </b> \$	(25,262)	-24%
Memo: Total HoldCo O&M excluding FOMB Transfers							
HoldCo Transfers		-		22,819	 	22,819	N/A
Total HoldCo O&M excluding FOMB Transfers	\$	103,741	\$	101,298	\$	(2,443)	-2%

### **Management Notes**

### HoldCo Labor Operating Budgeted Expenses:

 The primary driver of Labor Operating expenses includes the transfer from HoldCo to GenCo of 85% of PREPA requested amounts for Finance, HR and Admin Directorates, resulting in a net decrease of 29%

### HoldCo Non-Labor / Other Operating Budgeted Expenses:

- The primary driver of the Non-Labor Operating expenses include top-down adjustments by the FOMB in effort to bring expenses in line with historical averages, resulting in a net decrease of 9%
- P3A Transaction costs no longer a budget responsibility of PREPA's
- External Audit amount in FY22 embedded in Professional & Outsourced Services



# **Questions & Answers**