

**GOBIERNO DE PUERTO RICO
JUNTA REGULADORA DE SERVICIOS PÚBLICOS DE PUERTO RICO
NEGOCIADO DE ENERGÍA DE PUERTO RICO**

IN RE: PLAN PRIORITARIO PARA LA
ESTABILIZACIÓN DE LA RED
ELÉCTRICA

CASO NÚM.: NEPR-MI-2024-0005

NEPR

Received:

Sep 6, 2024

2:09 PM

**MOCIÓN EN CUMPLIMIENTO CON RESOLUCIÓN Y ORDEN DEL 9 DE AGOSTO DE
2024**

AL NEGOCIADO DE ENERGÍA DE PUERTO RICO:

COMPARECE la Autoridad de Energía Eléctrica de Puerto Rico ("AEE" o "Autoridad"), a través de su representación legal que suscribe y, muy respetuosamente expone y solicita:

1. El 13 de junio de 2024, el Negociado de Energía de la Junta Reglamentadora de Servicio Público de Puerto Rico ("Negociado de Energía") emitió una Resolución y Orden para la apertura del caso de epígrafe. En la misma el Negociado de Energía solicitó a LUMA Energy, LLC y LUMA Energy ServCo, LLC (conjuntamente "LUMA"), a Genera PR, LLC ("Genera") y a la Autoridad de Energía Eléctrica de Puerto Rico ("AEE") a desarrollar un plan de mejoras al sistema eléctrico que "mitigue las fallas recurrentes y elimine los puntos débiles que afectan la calidad del servicio eléctrico."
2. Luego de que LUMA, Genera y la AEE presentaran sus respectivos planes, el 9 de agosto de 2024, el Negociado de Energía emitió una Resolución y Orden para establecer un calendario procesal para la evaluación de los

planes de mejoras. El Negociado de Energía señaló una vista técnica para el 11 de septiembre de 2024, y ordenó a que la AEE, LUMA y Genera sometieran sus presentaciones para la vista técnica en o antes del 9 de septiembre de 2024.

3. En cumplimiento con la orden dictada, la Autoridad somete su presentación para la vista técnica del 11 de septiembre de 2024.

POR TODO LO CUAL, la Autoridad solicita respetuosamente al Negociado de Energía que declare ha lugar la presente moción de reconsideración y de por cumplida la orden emitida el 9 de agosto de 2024.

RESPETUOSAMENTE SOMETIDA.

En San Juan, Puerto Rico, a 6 de septiembre de 2024.

CERTIFICO: Por la presente certificamos que este documento fue presentado ante la Oficina del Secretario de la Oficina de Energía utilizando su Sistema de Presentación Electrónica en <https://radicacion.energia.pr.gov/login>, y se ha enviado copia de cortesía mediante correo electrónico a LUMA Energy, LLC a margarita.mercado@us.dlapiper.com, valeria.belvis@usdlapiper.com y a Genera PR, LLC a lrn@roman-negron.com.

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Puerto Rico
Electric Power
Authority

Puerto Rico Electric Power Authority

Hydroelectric Power Plants – Preliminary Plan

HydroCo

Puerto Rico Energy Bureau

September 11, 2024

Rehabilitation Plans of Hydroelectric Systems – Actual Status

Unit	Capacity (MW)	A	N.A.	Description of any limitation	Estimated date to return for service
Rio Blanco 1	2.5		X	Turbine and generator available. Major damage to penstock due to hurricane Maria. Penstock undergoing partial repairs to return unit to service at limited capacity. Main Power Transformer failed acceptance tests of June 2024. Needs replacement. Awaiting FEMA approval.	TBD
Rio Blanco 2	2.5		X		
Dos Bocas 1	5		X	Main Power Transformer passed load test. Turbine and generator ready for operation. An operational 38 kV line event in June 2024 damaged two 38 kV PT's, ratio 330:1. PT's in procurement process; estimated delivery time of 8 to 10 weeks.	Nov. 2024
Dos Bocas 2	5	X		None	-----
Dos Bocas 3	5	X		None	-----
Caonillas 1-1	10		X	Flooded and major damages due to hurricane Maria. Repairs awaiting FEMA approval.	TBD
Caonillas 1-2	10		X		
Caonillas 2-1	3.6		X	Flooded and major damages during hurricanes Georges and Maria. Reservoirs 100% sedimented Repairs awaiting FEMA approval.	TBD
Toro Negro 1-1	1.5	X		None	-----
Toro Negro 1-2	1.5	X		None	-----
Toro Negro 1-3	1.5	X		None	-----
Toro Negro 1-4	4		X	Turbine and generator available. Damages on penstock. Partial repairs ongoing. Delayed	Sept. 2024
Toro Negro 2-1	2		X	Turbine and generator available. Damages on penstock. Partial repairs ongoing. Delayed	Sept. 2024
Garzas 1-1	3.6	X		None	-----
Garzas 1-2	3.6		X	Unit out of service. Maintenance on going to Commuter and Generator: cleaning.	Sept. 6, 2024
Garzas 2-1	5		X	Turbine and generator available. Transmission line 1100, of 38 kV, damaged since hurricane María: Awaiting LUMA repairs - rescheduled for the 3rd Qtr 2025.	Sept. 2025
Yauco 1-1	25		X	Catastrophic damages on turbine. Repairs awaiting FEMA approval.	TBD
Yauco 2-1	4.5	X		Capacity limited to 2 MW due to problems on CT's ratio located after Main Power Transformer (LUMA'S side) – Pending for LUMA.	-----
Yauco 2-2	4.5	X		None	-----
Patillas 1-1	.8		X	Plant to be demolished for the Patillas' dam structural repairs and upgrade. PREPA is awaiting ER2 approval for a new hydroelectric unit in this site.	TBD
Patillas 1-2	.6		X		TBD

A: Available

Installed Capacity: 101.7 MW

N.A: Not Available

Available Capacity: 30.7 MW

Note: All the hydroelectric power plants mentioned above, in addition to the installations declared in disuse: Isabela Plants 1, 2, 3 and 4, and Carite Plants 1, 2 and 3, are within the project awaiting FEMA approval. This project aims to modernize the facilities, upgrading their technology to align with 21st-century standards, which will enhance their efficiency, reliability, and capacity to meet future energy demands and to support PR100 goal with the integration of more intermittent renewable energy sources to the grid.



Rehabilitation Plans of Hydroelectric Systems

PREPA's preliminary plans to improve the electrical system are based on securing the operational availability to dispatch 30.7 MW, on increasing the availability of hydroelectric generation units for a maximum of 42 MW by the end of 2025, and on the obligation of \$857,968,150 under FEMA's 428 and 404 to execute projects related to the hydroelectric infrastructure system in a ten-year period. However, due to PREPA's limited human resources and budgetary constraints, with only approximately 39 employees assigned to the hydroelectric plants, achieving the necessary work within the two-year timeframe is challenging.

1. Short Term Strategy

- ✓ HydroCo's network of on-demand contracts with various specialized companies to ensure the optimal functioning and operational of the available hydroelectric units while FEMA-funded rehabilitation and mitigation projects are being executed.
- ✓ These contracts enable the immediate intervention of experts in identifying and resolving technical issues that may arise, as well as in the preventive, predictive and corrective maintenance of the infrastructure.

Contract No.	Description	Service Supplier
102230	Maintenance to Air Conditioning Systems	AIT TECHNOLOGIES INC
102234	Crane Rental	QUALITY EQUIPMENT INC
102552	Oil Sampling and Analysis	SPECTRON CARIBE INC
103440	Divers	CARIBBEAN DIVING CONTRACTORS LLC
102540	Electrical Works	VITAL ENERGY CORPORATION
102267	Fire Extinguisher and Suppressor Systems Insp & maint.	FIRE CONTROL CORP
103283	Pest Control	ISLAND EXTERMINATING SERVICES INC
102475	Repairs and Manitenance of Ovehead Cranes	VITAL ENERGY CORPORATION
102462	Mechanical Works	VITAL ENERGY CORPORATION
102623	Protection Systems, Relays and Breakers	PRO ENERGY CORP
102463	Welding Sertvices	VITAL ENERGY CORPORATION
102472	Vibrations and Thermographgy	VIBRANALYSIS INC
102204	Scaffolds Rental	BRAND ENERGY INFRASTRUCTURE SERVICES
103675	Transformers Inspection and Maintenance Services	STAR ELECTRICAL SERVICES AND GENERAL SUPPLIES



Rehabilitation Plans of Hydroelectric Systems - Short Term

- ✓ The recovering of 6 MW during the last quarter of 2024: Toro Negro 1-4 and 2-1.
 - ✓ The recovering of 5 MW in the 3rd quarter of 2025, conditioned to repairs of line 38 kV, # 1100: Garzas 2-1.
- The plan by the end of year 2025 is to increase the available generation capacity to a maximum of 42 MW.

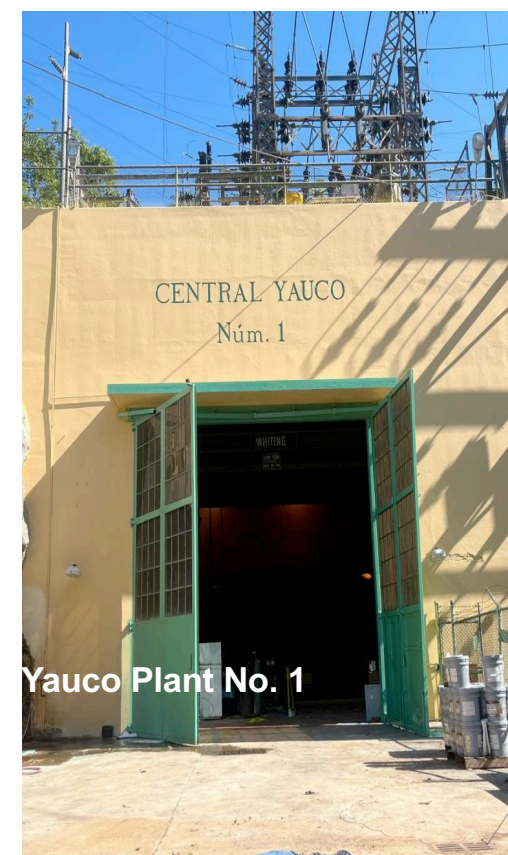


Rehabilitation Plans of Hydroelectric Systems – Long Term

2. Improvement to Hydroelectric Plants, FEMA 404 (Fiona): > 3 years

Dos Bocas	Caonillas 1	Caonillas 2	Toro Negro 1	Toro Negro 2	Garzas 1	Garzas 2	Yauco 1	Yauco 2	Rio Blanco	Isabela 1	Isabela 2	Carite 1	Carite 2	Carite 3
3	2	1	4	1	2	1	1	2	2	2	2	2	2	1

- **Objective:** Increase available generation capacity up to 120 MW
- **Execution Timeline:** > 3 years
- **SOW:** Retrofit, Refurbish, Repairs and Upgrade with technology of the 21st Century
- **Total Projects** 15 sites, 28 Units
- **Status:** Awaiting FEMA approval. Application Pkg No. 1966
- **Strategy:** RFP for EPC contract (s), prioritizing plants Caonillas 1 and Yauco 1 - Recovering over 40 MW.
- **Total Investment for 28 Units (Est.):** \$320.79M

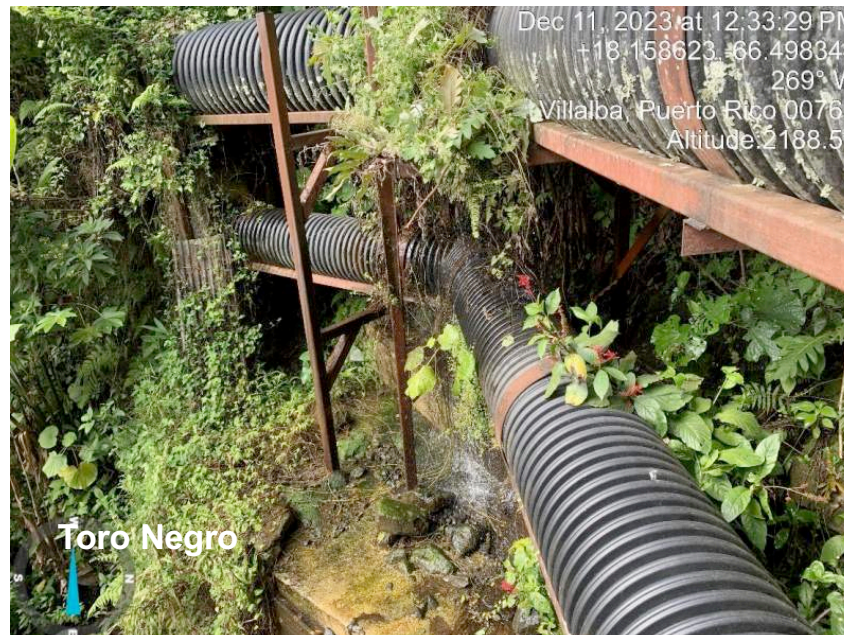
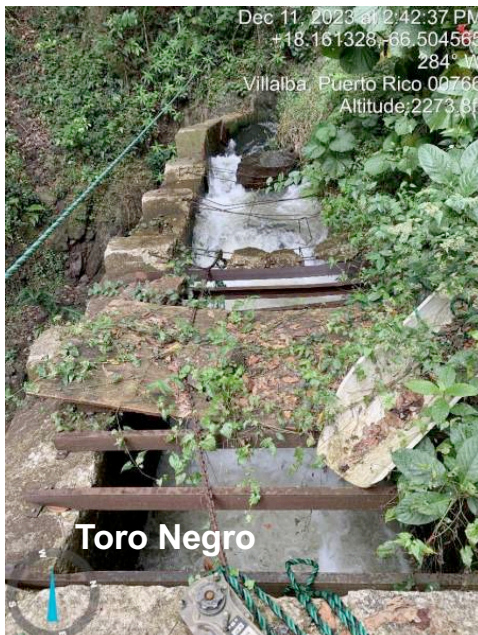


Rehabilitation Plans of Hydroelectric Systems – Long Term

3. Repairs of Penstock and Conveyances Structures, FEMA 428 (Maria) : Rio Blanco (Naguabo) and Toro Negro Systems (Orocovis, Ciales, Villalba): > 3 years

- SOW: Replacement of Penstocks, Valves, Supports, and Repairs of Canals
- Execution Timeline: > 3 years
- Status: 30% design submitted to FEMA on mid December 2023, and in FEMA's EHP Review since June 2024.
- Strategy: Design & Build contract(s)
- Total Investment (Est.) for Rio Blanco and Toro Negro: \$109,842,083.55 and \$51,984,905.83 respectively.

Rio Blanco GM #: 180723 Toro Negro GM #: 436468

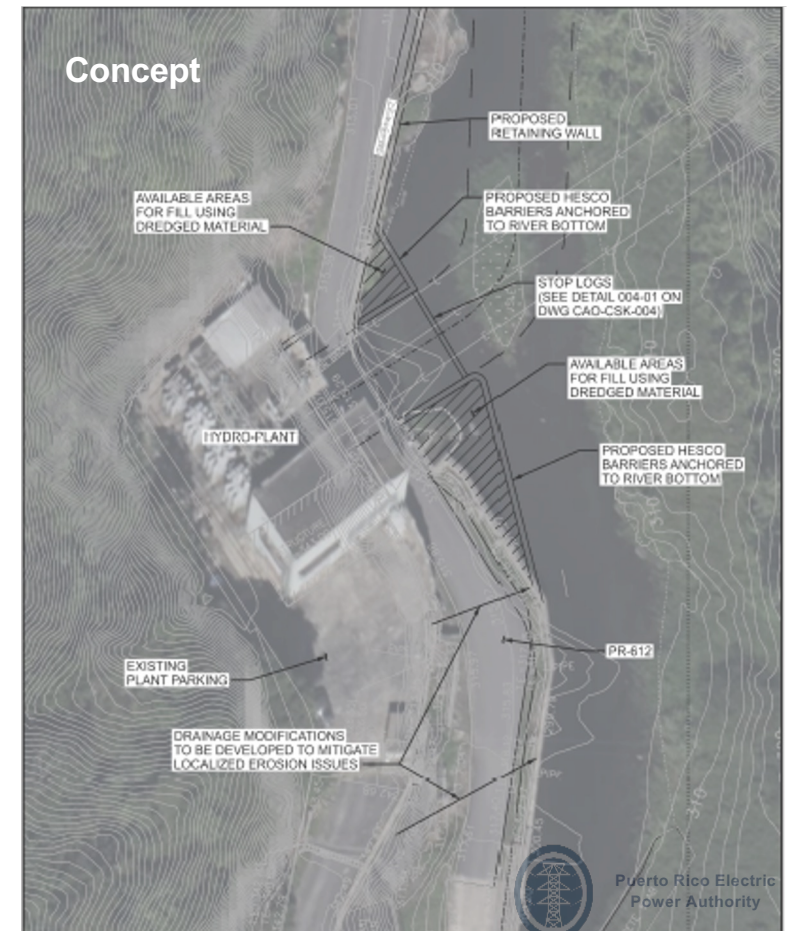


Puerto Rico Electric
Power Authority

Rehabilitation Plans of Hydroelectric Systems – Long Term

4. Caonillas Plant No. 1 Cofferd Dam Project, FAAst FEMA 428 (Maria): ≥ 3 years

- SOW: Construction of a temporary coffer dam for dredging the discharge channel, and discharge tube cleaning to complete the damages inspection.
- Execution Timeline: > 3 years
- Status: Detailed Revised Scope of Work submitted to FEMA in the 1st week of January 2024. Awaiting FEMA approval to proceed 30% design required for FEMA's EHP review. GM #: 728260
- Strategy: Design and Build contract
- Total Investment (Est): \$3,611,000



Rehabilitation Plans of Hydroelectric Systems – Long Term

5. Dredging Projects for Eleven Reservoirs, FEMA 428 (Maria): > 3 years

- SOW: Dredging of Dos Bocas, Caonillas, Guayabal, Matrullas, Guineo, Loco, Guayo, Lucchetti, Guajataca, Guerrero, Garzas
- Objective: Sediment removal to bring each reservoir's capacity previous hurricane Maria's impact.
- Execution Timeline: 10 years
- Status: RFP for design awarded. Contracts signed. Contractors mobilized in August 2024 . Budget: \$21,740,160.00. PW 9510
 - ✓ CSA Group \$9,381,890.91 (Dos Bocas, Caonillas, Garzas, Guajataca, Guerrero): 30% design by 1st Qtr year 2025
 - ✓ AECOM \$9,858,269.09 (Matrullas, Guineo, Guayo, Guayabal, Loco, Lucchetti): 30% design by 2nd Qtr 2025
- Strategy: Issue RFP for construction after FEMA's EHP evaluation is approved (30% design).
- Total Investment for Construction (Est): \$350,000,000



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