

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

IN RE: REVIEW OF THE PUERTO RICO
ELECTRIC POWER AUTHORITY'S 10-
YEAR INFRASTRUCTURE PLAN –
DECEMBER 2020

CASE NO.: NEPR-MI-2021-0002

SUBJECT: Evaluation of PREPA's
Deferred Generation Projects

RESOLUTION AND ORDER

I. Introduction

On March 26, 2021, the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") issued a Resolution and Order ("March 26 Resolution") through which it ordered the Puerto Rico Electric Power Authority ("PREPA") to submit each specific capital investment project for approval, to avoid potential noncompliance with the Approved Integrated Resource Plan ("IRP") and Modified Action Plan.¹ The Energy Bureau required PREPA to submit the specific projects to the Energy Bureau for approval at least thirty (30) calendar days before their submittal to the Puerto Rico Central Office for Recovery, Reconstruction and Resiliency ("COR3") and the Federal Emergency Management Agency ("FEMA").²

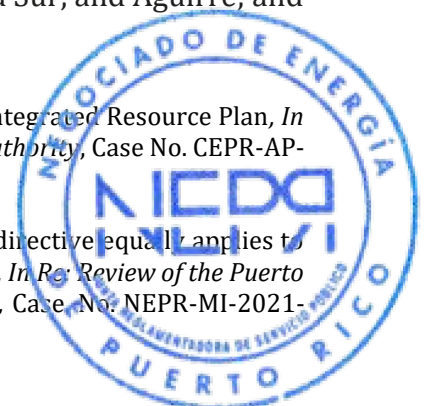
On November 15, 2021, PREPA filed before the Energy Bureau a document titled *Motion to Submit Fourth Group of Generation Projects* ("November 15 Motion"). Through the November 15 Motion, PREPA submitted one hundred-four (104) Work descriptions in Attachment A ("Proposed Generation Projects") containing a general description of works of conservation, repairs, and retrofitting of generation units and their auxiliary equipment, including, without limitation, boilers, turbines, rotors, generators, motors, pumps, breakers, and control systems for their generation power plants. The works are to be performed in the following Plants: San Juan Power Plant, Aguirre Power Plant and Combined Cycle, Costa Sur Power Plant, Palo Seco Steam Plant, Hydrogas Turbine Peakers, Cambalache, Mayagüez Gas Turbines, and a list of jobs to be performed in all the power plants. PREPA prepared a comprehensive list of repairs works projects of its generation assets and for which PREPA will seek reimbursement under several FEMA programs (*i.e.*, Section 404, Section 428 Public Assistance, etc.).

On January 4, 2022, the Energy Bureau issued a Resolution and Order ("January 4 Order") addressing the November 15 Motion. Through the January 4 Order the Energy Bureau conditionally approved the generation projects described in Attachments A to H, pending the submittal by PREPA of the Scope of Works ("SOWs") of each project. To complete the evaluation on the Proposed Generation Projects, the Energy Bureau requested:

1. The status of each unit in the Proposed Generation Projects;
2. If and how the expenditure will help bring the unit back to availability for operation;
3. When the unit would be available for operation if the expenditure was made;
4. The expected duration of availability status of the unit after the expenditure is made, and any other required explanation;
5. An updated snapshot of the status of repairs and expected availability over the next three years for the units at San Juan, Palo Seco, Costa Sur, and Aguirre; and

¹ Final Resolution and Order on the Puerto Rico Electric Power Authority's Integrated Resource Plan, *In re: Review of the Integrated Resource Plan of the Puerto Rico Electric Power Authority*, Case No. CEPR-AP-2018-0001, August 24, 2020 ("IRP Order").

² March 26 Resolution, pp. 14-15. The Energy Bureau determined that this directive equally applies to LUMA Energy, LLC and LUMA Energy ServCo, LLC (collectively, "LUMA"). See, *In Re: Review of the Puerto Rico Electric Power Authority's 10-Year Infrastructure Plan – December 2020*, Case No. NEPR-MI-2021-0002, Resolution and Order, June 8, 2021.



6. Either the “Draft released to PREPA” of the “10-Year Thermal Generation Retirement, Addition and Conversion Plan” as listed on page 7 of the December 2021 Status Report scheduled for finishing by March 2022³ or a synopsis of PREPA’s current understanding of how planned retirements of the fossil fleet are considered when requesting approval for maintenance and capital investment funding through the instant procedure.

On January 13, 2022, PREPA filed before the Energy Bureau a document titled *Partial Compliance with the January 4 Order and Request for Extension of Time* (“January 13 Motion”). Through the January 13 Motion PREPA submitted twenty-five (25) initial SOWs for certain Proposed Generation Projects for the review and approval of the Energy Bureau. Of the twenty-five (25) SOWs, twenty-four (24) were conditionally approved while one (1) was classified as Deferred Project, as stated in the January 4 Order. Attachment A of the January 13 Motion describes the Proposed SOWs for these twenty-five (25) Proposed Generation Projects.

On January 25, 2022, PREPA filed before the Energy Bureau a document titled *Motion to Submit Additional Generation Projects SOWs* (“January 25 Motion”). Through the January 25 Motion PREPA submitted ten (10) additional SOWs for the review and approval of the Energy Bureau. Of these Generation SOW’s, seven (7) were conditionally approved while three (3) were classified as Deferred Project, as stated in the January 4 Order.

On January 28, 2022, PREPA filed before the Energy Bureau a document titled *Second Motion to Submit Additional Generation Projects SOWs* (“January 28 Motion”). Through the January 28 Motion PREPA submitted twenty (20) additional SOWs for the review and approval of the Energy Bureau. Of these Generation SOW’s, nineteen (19) were conditionally approved while one (1) was classified as Deferred Project, as stated in the January 4 Order. Attachment A of the January 28 Motion describes the Proposed SOWs for these twenty (20) Proposed Generation Projects.

On February 2, 2022, PREPA filed before the Energy Bureau a document titled *Third Motion to Submit Additional Generation Projects SOWs* (“February 2 Motion”). Through the February 2 Motion PREPA submitted fourteen (14) additional SOWs for the review and approval of the Energy Bureau. Of these Generation SOW’s, twelve (12) were conditionally approved while two (2) were classified as Deferred Projects, as stated in the January 4 Order. Attachment A of the February 2 Motion describes the Proposed SOWs for these fourteen (14) Proposed Generation Projects.

On February 8, 2022, PREPA filed before the Energy Bureau a document titled *Fourth Motion to Submit Additional Generation Projects SOWs* (“February 8 Motion”). Through the February 8 Motion PREPA submitted ten (10) additional SOWs for the review and approval of the Energy Bureau. Of these Generation SOW’s, four (4) were conditionally approved while six (6) were classified as Deferred Projects, as stated in the January 4 Order. Attachment A of the February 8 Motion describes the Proposed SOWs for these ten (10) Proposed Generation Projects.

Through the February 8 Motion, PREPA also requested confidential designation and treatment of Attachment A for certain global positioning system (“GPS”) information for the projects. PREPA states that such GPS information is considered Critical Energy Infrastructure Information (“CEII”) and is therefore confidential. PREPA requested to publish the public redacted version of the referenced Attachment A, as filed in the February 8 Motion.⁴

On February 10, 2022, the Energy Bureau issued a Resolution and Order (“February 10 Resolution”) through which it addressed the January 13 Motion. Through the February

³ See Motion to Submit December 2021 Status Report in Compliance with Order *In re. Preliminary Studies for New Combined Cycle Power Plant in Palo Seco*, Case. No. NEPR-MI-2021-0003, December 15, 2021.

⁴ February 8 Motion, pp.4-9.



10 Resolution the Energy Bureau approved twenty-four (24) SOWs conditionally approved through the January 4 Order. The Energy Bureau determined not to approve SOW 4069 identified as (Procurement and delivery of water wall boiler tubes and economizer unit Palo Seco 3), as described in Attachment B of the February 10 Resolution⁵

On February 14, 2022, PREPA filed before the Energy Bureau a document titled *Motion to Complete Generation Projects SOWs Submittal and Partial Responses to RFI and Request for Extension of Time to Submit Additional Responses to RFI* ("February 14 Motion"). Through the February 14 Motion PREPA submitted twenty-three (23) additional SOWs for the review and approval of the Energy Bureau. Of these Generation SOW's, twenty-two (22) were conditionally approved while one (1) was classified as a Deferred Project, as stated in the January 4 Order. Attachment A of the February 14 Motion describes the Proposed SOWs for these twenty-three (23) Proposed Generation Projects.

Through the February 14 Motion, PREPA also requested confidential designation and treatment of Attachment A for certain global positioning system ("GPS") information for the projects. PREPA states that such GPS information is considered Critical Energy Infrastructure Information ("CEII") and is therefore confidential. PREPA requested to publish the public redacted version of the referenced Attachment A, as filed in the February 14 Motion.⁶

On February 18, 2022, the Energy Bureau issued a Resolution and Order ("February 18 Resolution") through which it addressed the January 25 Motion. In the February 18 Resolution the Energy Bureau approved seven (7) SOWs conditionally approved through the January 4 Order. The Energy Bureau determined not to approve three (3) SOWs identified as: 4073 (Unit Palo Seco 4 refractory, insulation, scaffolding, and painting application works), 4075 (Procurement turning gear system, Unit Palo Seco 3 and 4) and 4080 (Unit Palo Seco 4, superheater, header number 5 material and installation) as described in Attachment B of the February 18 Resolution.⁷

On February 24, 2022, the Energy Bureau issued a Resolution and Order ("February 24 Resolution") through which it addressed the February 2 Motion. In the February 24 Resolution the Energy Bureau approved twelve (12) SOWs conditionally approved through the January 4 Order. The Energy Bureau determined not to approve two (2) SOWs identified as: 1012 (Structural repairs fuel service tank 10, San Juan Power Plant) and 6088 (Unit 1 Rehabilitation – Cambalache Power Plan) as described in Attachment B of the February 24 Resolution.⁸

On March 9, 2022, the Energy Bureau issued a Resolution and Order ("March 9 Resolution") through which it addressed the January 28 Motion. In the March 9 Resolution, the Energy Bureau approved nineteen (19) SOWs conditionally approved through the January 4 Order. The Energy Bureau determined not to approve SOW 2029 identified as Unit 1 South wall boiler tubing replacement and boilers repairs – Aguirre Power Plant as described in Attachment B of the March 9 Resolution.⁹

On April 13, 2022, the Energy Bureau issued a Resolution and Order ("April 13 Resolution") through which it addressed the February 8 Motion and the February 14 Motion. In the April 13 Resolution, the Energy Bureau approved twenty-five (25) SOWs conditionally approved through the January 4 Order. However, the Energy Bureau determined not to approve seven (7) SOWs identified as: 1009 (Cooling Tower Unit 10 Repair Works – San Juan Power Plant), 1021 (Unit 8 Rehabilitation (Turbine) – San Juan

⁵ SOW 4069 was classified as a deferred project through the January 4 Order.

⁶ February 8 Motion, pp. 5-11.

⁷ SOWs 4073, 4075 and 4080 were classified as a deferred project through the January 4 Order.

⁸ SOWs 1012 and 6088 were classified as a deferred project through the January 4 Order.

⁹ SOWs 2029 was classified as a deferred project through the January 4 Order.



Power Plant), 1022 (Unit 7 Rehabilitation (Turbine) – San Juan Power Plant), 1027 (Unit 7 – San Juan Power Plant Major Outage - Boiler Sections Replacement and Repairs & Auxiliary Equipment Inspection Work – San Juan Power Plant), 1028 (Unit 8 – San Juan Power Plant Major Outage - Boiler Sections Replacement and Repairs & Auxiliary Equipment Repairs – San Juan Power Plant), 4070 (PS 3 Low Pressure Turbine Rotor Refurbished, Unit 3 – Palo Seco Steam Plant), and 1016 (Unit 10 Rehabilitation – San Juan Power Plant), as described in Attachment B and Attachment D of the April 13 Resolution.¹⁰

II. Evaluation of PREPA's Deferred Projects

As part of the proceedings pertaining the instant case, the Energy Bureau has approved various Proposed Generation Projects submitted by PREPA. The Energy Bureau has determined that such projects are necessary to maintain and improve the reliability of the systems in the corresponding PREPA's generation plants. However, some of the Proposed Generation Projects were not approved, since the Energy Bureau determined that it needed more specific information for their adequate evaluation. The Energy Bureau classified such projects as Deferred Generation Projects through the January 4 Resolution.

PREPA has provided SOWs for fourteen (14) out of the fifteen (15) Deferred Generation Projects regarding the generation plants in San Juan Power Plant, Aguirre Power Plant, Palo Seco Power Plant, and Cambalache Power Plant, which are described in Attachment A of this Resolution and Order. All SOWs described the project and work to be performed, with the corresponding cost estimates, many of which were based in historical prices, equipment specifications, bidding process (for those works that required such method), and/or corresponding documentation (for those that shall be performed by a unique or sole supplier). Attachment A of this Resolution and Order distinguishes between the original estimate of project's costs in the November 15 Motion, and the cost estimates in (i) the January 13 Motion; (ii) the January 25 Motion; (iii) the January 28 Motion; (iv) the February 2 Motion; (v) the February 8 Motion and the (vi) February 14 Motion.

A. Approved Projects

After reviewing the SOWs, the Energy Bureau **DETERMINES** that five (5) of the fifteen (15) Proposed Generation Projects that were classified as Deferred Generation Projects ("5 SOWs") are necessary to maintain and improve the reliability of the systems in the corresponding PREPA Plants. The 5 SOWs are identified as SOW s No. 4073, 4075, 4080, 1012, and 1019.

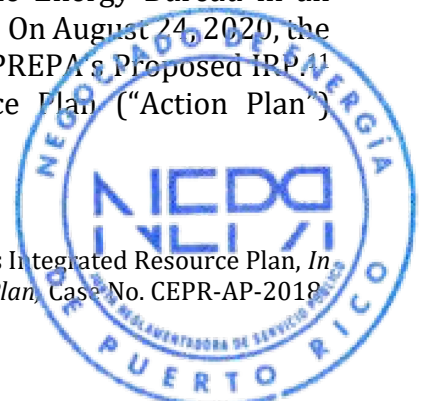
The 5 SOWs include descriptions and justifications for the corresponding units, the type of project and the corresponding Codes and Standards affected. Therefore, the Energy Bureau **APPROVES** the 5 SOWs projects, which are described in **Attachment B** of this Resolution and Order. The Energy Bureau notes this approval represents an investment of \$4,270,766.60 based on the proposed works presented by PREPA through the aforementioned motions.

B. Denied Projects

As it is known, PREPA's Proposed IRP was evaluated by the Energy Bureau in an adjudicative proceeding under Case No.: CEPR-AP-2018-0001. On August 24, 2020, the Energy Bureau issued the IRP Final Order, approving in part PREPA's Proposed IRP.¹¹ The Approved IRP includes a Modified Preferred Resource Plan ("Action Plan")

¹⁰ April 13 Resolution, pp. 12-13, 19.

¹¹ Final Resolution and Order on the Puerto Rico Electric Power Authority's Integrated Resource Plan, *In re. Review of the Puerto Rico Electric Power Authority Integrated Resource Plan*, Case No. CEPR-AP-2018-0001, August 24, 2020 ("Approved IRP").



considering, among others, specific planning parameters for the power generation capacity additions¹² and retirements.¹³ In the Approved IRP, the Energy Bureau established a schedule for minimum quantities of renewable resources and battery energy storage resources to be procured through Request for Proposals (“RFP”) processes. It also directed PREPA to submit a renewable resource and battery energy storage procurement plan (“Procurement Plan”). Specifically, the Approved IRP included a program for six (6) tranches of procurement for renewable energy and battery storage resources from third parties,¹⁴ in support of, among other things, meeting Act 17-2019¹⁵ targets for renewable energy installations.¹⁶

The implementation of the approved Procurement Plan is ongoing, and the Energy Bureau expects that a substantial number of renewable resources be integrated in the Puerto Rico Electric System by the end of 2025. Consistent with the foregoing, the Approved IRP determined that PREPA should retire its older, oil-fired steam and certain combined cycle turbines assets in order of the declining cost to operate when they are no longer necessary for system reliability during the period of 2021 and 2025.¹⁷

(i) SOWs No. 1016, 1021, 1022, 1027, and 1028

The projects proposed under SOWs No. 1016, 1021, 1022, 1027, and 1028 comprise major repair, rebuilding, rehabilitation and/or replacement works at the San Juan Power Plant Units 7, 8, and 10 (collectively, the “San Juan Power Plant Deferred Projects”).

In the Proposed IRP only two (2) out of the four (4) San Juan Power Plant steam units were considered as available generation units.¹⁸ Since the San Juan Units 7, 8, 9, and 10 are substantially identical, they were modeled as interchangeable for purposes of the Proposed IRP.¹⁹ Nevertheless, it must be clear that only two (2) of the four (4) units are contemplated in the Approved IRP as available generation resources, and both are expected to be retired by 2025²⁰. That is, by the end of 2025, none of the San Juan Plant steam units are expected to be in operation. Specifically, PREPA represented in the Proposed IRP that the San Juan Plant steam units 7, 8, 9 and 10 are not in acceptable operational conditions, do not comply with MATS²¹ and would require a non-economically viable capital investment to reach MATS compliance and acceptable operational conditions.²²

¹² Id., ¶¶847-867, pp. 263-269.

¹³ Id., ¶¶869-873, pp. 270-271.

¹⁴ Id., ¶ 860, pp. 266-268.

¹⁵ Known as *Puerto Rico Energy Public Policy Act* (“Act 17-2019”).

¹⁶ Approved IRP, p. 266.

¹⁷ The retirements should align with synchronous condensers conversion. Approved IRP, ¶630, p. 193. The Energy Bureau also approved the retirement and replacement of certain existing gas turbine peaking with new gas turbines (GTs), including certain units located at Palo Seco and Aguirre power plants. Approved IRP, ¶873, p. 271.

¹⁸ Proposed IRP, Exhibit 4-5, p. 4-3, p. 4-19, p. 4-23, and p. 4-26.

¹⁹ Id.

²⁰ Approved IRP, ¶870, p. 270 and Proposed IRP, Exhibit 4-6, p. 4-4.

²¹ Mercury and Air Toxic Standards (“MATS”).

²² Proposed IRP, Table 4-6.



The degraded conditions of the San Juan Power Plant steam units were recognized by PREPA also in the IRP process conducted in 2015.²³ Notably, in the Approved 2016-IRP, the Energy Bureau authorized the retirement of San Juan Power Plants units 7 and 8.²⁴ It also authorized limited use of the San Juan Power Plants units 9 and 10.²⁵ Such determination was supported by the following facts: (a) the units were reaching the end of their useful life, (b) the units do not comply with MATS, (c) the units are operationally inflexible due to their high minimum run rates, slow ramp rates and high forced outages. Moreover, these characteristics, it was concluded, reduced the reliability of the units, and introduced barriers to the integration of renewables.²⁶ In addition, it was considered that the high fuel consumption of these units did not justify their continued use.²⁷

The San Juan Plant Deferred Projects aims to extend the useful life of the San Juan Power Plant steam units between five (5) to seven (7) years, (i) in all cases beyond 2025 and, (ii) in certain cases until 2029. Plainly, the San Juan Power Plant Deferred Projects are not supported by the Approved IRP. Some of the San Juan Power Plant steam units in which major repair, rebuilding, rehabilitation and/or replacement works are proposed were not even considered as available resources for the purposes of the Approved IRP while others are within the retirement schedule for years 2021-2025.

The Energy Bureau must also note that as part of the evaluation of PREPA's Proposed IRP, the Energy Bureau assessed PREPA's environmental impact related to air emissions.²⁸ Notably, as part of the Approved IRP process, PREPA represented to the Energy Bureau that compliance with the SO₂-NAAQS²⁹ will be achieved through the retirement of older, oil-fired generation units at the Palo Seco, San Juan, and Aguirre plants.³⁰ Also, other options for compliance for such units included the installation of sulfur emission control technology, fuel switching, or ceasing or reducing operations. In the Proposed IRP PREPA did not consider major repair, rebuilding and/or rehabilitation works to comply with the SO₂-NAAQS. If this had been done, the scope and estimated costs of the extension of the useful life of said generation facilities would have been considered as part of the modeling of the Proposed IPR, and, it was not.

(ii) SOWs No. 2029 and 4070

Projects proposed under SOWs No. 2029 and 4070 comprise major repair, rebuilding, rehabilitation and/or replacement works at Aguirre Plant (Steam Unit #1) and Palo Seco Plant (Steam Unit #3), respectively.³¹ Likewise, these plants are not in acceptable operational conditions, do not comply with MATS and would require a non-economically viable capital investment to reach MATS compliance and acceptable operational conditions.³² The projects under SOWs No. 2029 and 4070 also aims to extend the useful life of the concerned generation until 2028 and 2029, that is, way

²³ See, in general, *Final Resolution and Order on the First Integrated Resources Plan of the Puerto Rico Electric Power Authority*, Case No. CEPR-AP-2015-002, dated September 26, 2016 ("Approved 2016 IRP").

²⁴ Approved 2016 IRP, ¶270-¶273.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ See Article 1.9(3)(H) of Act 17-2019, known as the *Puerto Rico Energy Public Policy Act*.

²⁹ National Ambient Air Quality Standard (NAAQS) for SO₂ ("SO₂-NAAQS").

³⁰ Approved IRP, ¶296, p. 76

³¹ Approved IRP, ¶870 and ¶871, p. 270.

³² Proposed IRP, Exhibit 4-6, p. 4-4 and Exhibit 4-2, p. 4-1.



beyond the 2025 retirement date contemplated in the Approved IPR. Again, this is not supported by the Approved IRP.

(iii) SOW 6088

Project proposed under SOW 6088 comprise major repair, rebuilding, rehabilitation and/or replacement works at Cambalache Plant (Gas turbine GT-1). Nevertheless, the Cambalache GT-1 was excluded from the Proposed IRP as an available generation resource because it is not planned to be returned to operating condition in the foreseeable future.³³ Thus, a major expense in a generation resource not considered as part of the Proposed IRP is inconsistent with the Approved IRP.

Based on the foregoing discussion, the Energy Bureau **DETERMINES** that it will not approve eight (8) projects under SOWs No. 1016, 1021, 1022, 1027, 1028, 2029, 4070, and 6088, as indicated in Attachment C of this Resolution and Order (the "Denied Generation Projects").

C. Project Under SOW 8095

As stated in the April 13 Resolution, the Energy Bureau has not been able to evaluate SOW 8095, since Attachment A of the February 14 Motion did not include information on SOW 8095.³⁴ Therefore, through the April 13 Resolution, the Energy Bureau ordered PREPA to submit the documents for SOW 8095 within ten (10) days from its issuance.³⁵

Notwithstanding the above, PREPA did not comply with the Energy Bureau's order regarding SOW 8095. Consequently, even though the Energy Bureau conditionally approved such project, PREPA failed to provide essential information for the Energy Bureau to approve it. Accordingly, the Energy Bureau **CLARIFIES** that it is not evaluating through this Resolution and Order SOW 8095, identified as Hydro-blasting service for boilers for All Power Plants, since PREPA has not submitted the documents for SOW 8095.

SOW 8095 is identified in Attachment D of the present Resolution and Order as a project for which the Energy Bureau requires more specific information. In accordance with the above, the Energy Bureau **ORDERS** PREPA to submit the documents for SOW 8095 within ten (10) days from the issuance of this Resolution and Order.

III. Conclusion

For all the above, the Energy Bureau **APPROVES** the projects described in **Attachment B** of this Resolution and Order, which shall be presented to FEMA and COR3 to finalize the approval process. These projects were approved based on the information provided by PREPA. Should the scope of the project change, PREPA **SHALL** immediately seek the Energy Bureau's approval of such changes.

The Energy Bureau **ORDERS** PREPA to (i) submit to the Energy Bureau copy of the approval by COR3 and/or FEMA of the projects in **Attachment B** of this Resolution and Order, which shall contain the costs obligated for each project, **within ten (10) days of receipt of such approval**; (ii) provide the Energy Bureau the actual contracted cost to construct each project approved in such Attachment A, **within ten (10) days from the execution of the contract**; and (iii) inform the Energy Bureau once the projects are completed.

³³ Approved IPR, ¶279 and ¶280, pp. 72 and 75, respectively. See also Proposed IRP, Exhibit 4-6, p. 4-4 and Section 4.2.3, p. 4-7.

³⁴ April 13 Motion, Note 22.

³⁵ *Id.*, p. 9.



The directive instated in the March 26 Resolution related to the submission of projects before the Energy Bureau at least thirty (30) calendar days before submitting such projects to FEMA and/or COR3 remains unaltered.

Further, the Energy Bureau **ORDERS** PREPA to submit the documents for SOW 8095, identified in **Attachment D**, within ten (10) days from the issuance of this Resolution and Order. Should PREPA fails to submit the required information regarding project under SOW 8095 within ten (10) days, the project shall be considered as a denied project.

Finally, the Energy Bureau **DOES NOT APPROVE** the Denied Generation Projects, which are described in **Attachment C** of this Resolution and Order. Nevertheless, if circumstances change, particularly with respect to the Approved IRP, PREPA may refile the request for approval for the Denied Generation Projects.

Be it notified and published.

	
Edison Aviles Deliz Chairman	
	
Ángel R. Rivera de la Cruz Associate Commissioner	Lillian Mateo Santos Associate Commissioner
	
Ferdinand A. Ramos Soegaard Associate Commissioner	Sylvia B. Ugarte Araujo Associate Commissioner

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on June 4, 2022. I also certify that on June 4, 2022 a copy of this Resolution and Order was notified by electronic mail to the following: laura.rozas@us.dlapiper.com; margarita.mercado@us.dlapiper.com, kbolanos@diazvaz.law; mvazquez@diazvaz.law. I also certify that today, June 4, 2022, I have proceeded with the filing of the Resolution and Order issued by the Puerto Rico Energy Bureau.

For the record, I sign this in San Juan, Puerto Rico, today June 4, 2022.

	 Sonia Seda Gaztambide Clerk
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Attachment A
Deferred Generation Projects

SOW No.	Facility	Project Name	Proposed Scope of Work	Original ³⁶ Estimate	Presented ³⁷ Estimate	Diff	Page
1009	San Juan Power Plant	Cooling Tower Unit 10 Repair Works	These technical specifications cover the work required under this Contract for the design, manufacture, delivery, and erection for one (1) new cell of 3,000 GPM, and the dismantling of the one (1) existing cell of the cooling towers of the units 10 PREPA's San Juan Plant.	\$385,000.00	\$385,000.00	\$0.00	February 8 Motion, Att. A, pp. 13-36
1012	San Juan Power Plant	Structural Repairs Fuel Service Tank 10	Structural steel repairs of floor, roof, shell, columns and beams elements of an existing fuel service tank and application of new anti-corrosive on the interior and exterior of the tank.	\$750,000.00	\$647,000.00	\$103,000.00	February 2 Motion, Att. A, pp. 13-263
1016	San Juan Power Plant	Unit 10 Rehabilitation	Provide parts and service for the open-inspection and close of the steam turbine and generator. Also, in shop repairs for the steam turbine and the generator rotor and oil flush of the turbine.	\$16,000,000.00	\$15,960,538.80	\$39,461.20	February 14 Motion, Att. A, pp. 247-316

³⁶ Estimates presented through the November 15 Motion.

³⁷ Estimates presented through the January 13 Motion, January 25 Motion, January 28 Motion, February 2 Motion, February 8 Motion and February 14 Motion.



SOW No.	Facility	Project Name	Proposed Scope of Work	Original ³⁶ Estimate	Presented ³⁷ Estimate	Diff	Page
1021	San Juan Power Plant	Unit 8 Rehabilitation (Turbine)	Inspection and replacement of the High Pressure, Intermediate Pressure and Low-Pressure Rotors of the Turbine and perform all the testing and commissioning of the equipment.	\$10,000,000.00	\$10,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 37-79
1022	San Juan Power Plant	Unit 7 Rehabilitation (Turbine)	Inspection and replacement of the High Pressure, Intermediate Pressure and Low-Pressure Rotors of the Turbine and perform all the testing and commissioning of the equipment.	\$10,000,000.00	\$10,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 80-125
1027	San Juan Power Plant	Unit 7 - Major Outage - Boiler Sections Replacement and Repairs & Auxiliary Equipment Inspection Work	Necessary Repairs of deteriorated Boiler Tubes and Assemblies, and Auxiliary Equipment.	\$8,000,000.00	\$8,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 126-142
1028	San Juan Power Plant	Unit 8 - Major Outage - Boiler Sections Replacement and Repairs & Auxiliary Equipment Repairs	Necessary Repairs of deteriorated Boiler Tubes and Assemblies, and Auxiliary Equipment.	\$8,000,000.00	\$8,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 143-162
2029	Aguirre Power Plant	Unit 1 South Wall Boiler Tubing Replacement and Boilers Repairs	Partial rehabilitation of the south water wall between third and fourth floor on Unit 1 consisting on Boiler Tube Panels replacement.	\$7,000,000.00	\$5,983,862.95	\$1,016,137.05	January 28 Motion, Att. A, pp. 262-330



SOW No.	Facility	Project Name	Proposed Scope of Work	Original ³⁶ Estimate	Presented ³⁷ Estimate	Diff	Page
4069	Palo Seco Steam Plant	PS 3 Procurement and Delivery of Water Wall Boiler Tubes and Economizer Unit PS3	Manufacture, testing and delivery of the following components of the Unit 3 boiler; the economizer, and the water wall boiler tubes.	\$5,000,000.00	\$4,028,051.20	\$971,948.80	January 13 Motion, Att. A, p. 2764
4070	Palo Seco Steam Plant	PS 3 Low Pressure Turbine Rotor Refurbished, Unit 3	Inspection, transportation, maintenance, and repair of the power turbine spare low-pressure rotor.	\$2,000,000.00	\$3,500,000.00	(\$1,500,000.00)	February 8 Motion, Att. A, pp. 247-277
4073	Palo Seco Steam Plant	Unit PS 4 Refractory, Insulation, scaffolding and Painting Application Works	Service of scaffolding installation, removal and installation of boiler's refractory and painting of stacks and other components of the Unit 4	\$1,000,000.00	\$700,000.00	\$300,000.00	January 25 Motion, Att. A, pp. 260-299
4075	Palo Seco Steam Plant	Procurement Turning Gear System, Units 3 and 4	Purchase of new turning gear system for Units 3 or 4 replacement.	\$300,000.00	\$295,381.60	\$4,618.40	January 25 Motion, Att. A, pp. 328-360
4080	Palo Seco Steam Plant	Unit 4 Superheater Header Num. 5 Material and Installation	Purchase and installation of Superheater 5 component of the Unit's 4 boiler.	\$3,000,000.00	\$2,243,385.00	\$756,615.00	January 25 Motion, Att. A, pp. 380-423



SOW No.	Facility	Project Name	Proposed Scope of Work	Original ³⁶ Estimate	Presented ³⁷ Estimate	Diff	Page
6088	Cambalache Power Plant	Unit 1 Rehabilitation	Perform the required inspections, repair the exhaust gas housing and GT enclosure and filter house and replacement of all of the hot gas path components, turbo-compressor and blades and its related accessories of Gas Turbine Num. 1. Also, conversion of control system to Blue- Line similar to gas turbines 2 and 3, upgrade the combustor pulsation monitoring system, upgrade the automatic voltage regulator and upgrade the opacity monitoring system.	\$18,000,000.00	\$18,000,000.00	\$0.00	February 2 Motion, Att. A, pp. 626-643
8095	All Power Plants	Hydro-blasting service for Boilers	Pressure washing and neutralization service of the internal and external components of the boiler and other areas of PREPA's power plants	\$950,000.00	NOT PROVIDED	\$0.00	November 15 Motion, Att. A, p. 17



Attachment B
Works Approved by the Energy Bureau for the Power Plants Permanent Repairs

SOW NO.	Facility	Project Name	Proposed Scope of Work	Original ³⁸ Estimate	Presented ³⁹ Estimate	Diff	Page at Att. A
1009	San Juan Power Plant	Cooling Tower Unit 10 Repair Works	These technical specifications cover the work required under this Contract for the design, manufacture, delivery, and erection for one (1) new cell of 3,000 GPM, and the dismantling of the one (1) existing cell of the cooling towers of the units 10 PREPA's San Juan Plant.	\$385,000.00	\$385,000.00	\$0.00	February 8 Motion, Att. A, pp. 13-36
1012	San Juan Power Plant	Structural Repairs Fuel Service Tank 10	Structural steel repairs of floor, roof, shell, columns and beams elements of an existing fuel service tank and application of new anti-corrosive on the interior and exterior of the tank.	\$750,000.00	\$647,000.00	\$103,000.00	February 2 Motion, Att. A, pp. 13-263
4073	Palo Seco Steam Plant	Unit PS 4 Refractory, Insulation, scaffolding and Painting Application Works	Service of scaffolding installation, removal and installation of boiler's refractory and painting of stacks and other components of the Unit 4	\$1,000,000.00	\$700,000.00	\$300,000.00	January 25 Motion, Att. A, pp. 260-299

³⁸ Estimates presented through the November 15 Motion.

³⁹ Estimates presented through the January 13 Motion, January 25 Motion, January 28 Motion, February 2 Motion, February 8 Motion and February 14 Motion.



SOW NO.	Facility	Project Name	Proposed Scope of Work	Original ³⁸ Estimate	Presented ³⁹ Estimate	Diff	Page at Att. A
4075	Palo Seco Steam Plant	Procurement Turning Gear System, Units 3 and 4	Purchase of new turning gear system for Units 3 or 4 replacement.	\$300,000.00	\$295,381.60	\$4,618.40	January 25 Motion, Att. A, pp. 328-360
4080	Palo Seco Steam Plant	Unit 4 Superheater Header Num. 5 Material and Installation	Purchase and installation of Superheater 5 component of the Unit's 4 boiler.	\$3,000,000.00	\$2,243,385.00	\$756,615.00	January 25 Motion, Att. A, pp. 380-423
			TOTAL	<u>\$5,435,000.00</u>	<u>\$4,270,766.60</u>	<u>\$1,164,233.40</u>	



Attachment C
Works Not Approved by the Energy Bureau for the Power Plants Permanent Repairs

SOW NO.	Facility	Project Name	Proposed Scope of Work	Original ⁴⁰ Estimate	Presented ⁴¹ Estimate	Diff	Page at Att. A
1016	San Juan Power Plant	Unit 10 Rehabilitation	Provide parts and service for the open-inspection and close of the steam turbine and generator. Also, in shop repairs for the steam turbine and the generator rotor and oil flush of the turbine.	\$16,000,000.00	\$15,960,538.80	\$39,461.20	February 14 Motion, Att. A, pp. 247-316
1021	San Juan Power Plant	Unit 8 Rehabilitation (Turbine)	Inspection and replacement of the High Pressure, Intermediate Pressure and Low-Pressure Rotors of the Turbine and perform all the testing and commissioning of the equipment.	\$10,000,000.00	\$10,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 37-79
1022	San Juan Power Plant	Unit 7 Rehabilitation (Turbine)	Inspection and replacement of the High Pressure, Intermediate Pressure and Low-Pressure Rotors of the Turbine and perform all the testing and commissioning of the equipment.	\$10,000,000.00	\$10,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 80-125

⁴⁰ Estimates presented through the November 15 Motion.

⁴¹ Estimates presented through the January 13 Motion, January 25 Motion, January 28 Motion, February 2 Motion, February 8 Motion and February 14 Motion.



SOW NO.	Facility	Project Name	Proposed Scope of Work	Original ⁴⁰ Estimate	Presented ⁴¹ Estimate	Diff	Page at Att. A
1027	San Juan Power Plant	Unit 7 - Major Outage - Boiler Sections Replacement and Repairs & Auxiliary Equipment Inspection Work	Necessary Repairs of deteriorated Boiler Tubes and Assemblies, and Auxiliary Equipment.	\$8,000,000.00	\$8,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 126-142
1028	San Juan Power Plant	Unit 8 - Major Outage - Boiler Sections Replacement and Repairs & Auxiliary Equipment Repairs	Necessary Repairs of deteriorated Boiler Tubes and Assemblies, and Auxiliary Equipment.	\$8,000,000.00	\$8,000,000.00	\$0.00	February 8 Motion, Att. A, pp. 143-162
2029	Aguirre Power Plant	Unit 1 South Wall Boiler Tubing Replacement and Boilers Repairs	Partial rehabilitation of the south water wall between third and fourth floor on Unit 1 consisting on Boiler Tube Panels replacement.	\$7,000,000.00	\$5,983,862.95	\$1,016,137.05	January 28 Motion, Att. A, pp. 262-339
4069	Palo Seco Steam Plant	PS 3 Procurement and Delivery of Water Wall Boiler Tubes and Economizer Unit PS3	Manufacture, testing and delivery of the following components of the Unit 3 boiler; the economizer, and the water wall boiler tubes.	\$5,000,000.00	\$4,028,051.20	\$971,948.80	January 13 Motion, Att. A, p. 2764



SOW NO.	Facility	Project Name	Proposed Scope of Work	Original ⁴⁰ Estimate	Presented ⁴¹ Estimate	Diff	Page at Att. A
4070	Palo Seco Steam Plant	PS 3 Low Pressure Turbine Rotor Refurbished, Unit 3	Inspection, transportation, maintenance, and repair of the power turbine spare low-pressure rotor.	\$2,000,000.00	\$3,500,000.00	(\$1,500,000.00)	February 8 Motion, Att. A, pp. 247-277
6088	Cambalache Power Plant	Unit 1 Rehabilitation	Perform the required inspections, repair the exhaust gas housing and GT enclosure and filter house and replacement of all of the hot gas path components, turbo-compressor and blades and its related accessories of Gas Turbine Num. 1. Also, conversion of control system to Blue- Line similar to gas turbines 2 and 3, upgrade the combustor pulsation monitoring system, upgrade the automatic voltage regulator and upgrade the opacity monitoring system.	\$18,000,000.00	\$18,000,000.00	\$0.00	February 2 Motion, Att. A, pp. 626-643
TOTAL				<u>\$84,000,000.00</u>	<u>\$83,472,452.95</u>	<u>\$527,547.05</u>	



Attachment D
Project for Which the Energy Bureau Requires More Specific Information

NO.	Facility	Project Name	Proposed Scope of Work	Original ⁴² Estimate	Page at November 15 Motion, Att. A
8095	All Power Plants	Hydro-blasting service for Boilers	Pressure washing and neutralization service of the internal and external components of the boiler and other areas of PREPA's power plants	\$950,000.00	p. 17
TOTAL				<u>\$950,000.00</u>	



⁴² Estimates presented through the November 15 Motion.