

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

**NEPR**

**Received:**

**Apr 1, 2021**

**10:46 AM**

**IN RE:** REVIEW OF THE PUERTO RICO  
ELECTRIC POWER AUTHORITY  
INTEGRATED RESOURCE PLAN

**CASE NO.:** CEPR-AP-2018-0001

**SUBJECT:** Hydroelectric Facilities Study  
Monthly Status Report

**MOTION TO SUBMIT MARCH 2021 STATUS REPORT**

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COMES NOW, the Puerto Rico Electric Power Authority, through its counsel of record and respectfully sets forth and prays:

1. On August 24, 2020, the Puerto Rico Energy Bureau of the Public Service Regulatory Board (the “Energy Bureau”) entered *Final Resolution and Order on the Puerto Rico Electric Power Authority’s Integrated Resource Plan* (the “Final IRP Order”) directing the Puerto Rico Electric Power Authority (the “Authority”) to, among other things, complete and submit a feasibility study of refurbishing each all the hydroelectric facilities (the “Hydro Study”).
2. On February 22, 2021, the Authority submitted to the Energy Bureau *Motion to Submit Status Report of Feasibility Study for Improvement of PREPA’s Hydroelectric System and to Request Extension of Time to Submit Final Study* (the “Request for Extension”)<sup>1</sup>. The Authority also informed that it would submit to the Energy Bureau a status report of the project on a monthly basis.

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<sup>1</sup> In the Request for Extension, the Authority informed the Energy Bureau that it had retained the services of Black and Veatch Puerto Rico, PSC (“Black and Veatch”) to conduct the Hydro Study in compliance with the Final IRP Order.

3. The Authority hereby submits the Black & Veatch *Project Status Report* dated March 29, 2021 (the “Monthly Status Report”). Exhibit A. The Monthly Status Report summarizes the project schedule and budget status to date, identifies milestones completed, lists major activities performed, and provides a look ahead for activities planned in the next month.

WHEREFORE, the Authority herein requests the Energy Bureau to accept the Monthly Status Report for the month of March 2021.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 1<sup>st</sup> day of April 2021.

s/ Katuska Bolaños Lugo  
Katuska Bolaños Lugo  
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## CERTIFICATE OF SERVICE

It is hereby certified that, on this same date I have filed the above motion using the Energy Bureau's Electronic Filing System, at the following address: <http://radicacion.energia.pr.gov> and that a courtesy copy of the filing was sent via e-mail to: sierra@arctas.com; tonytorres2366@gmail.com; cfl@mcvpr.com; gnr@mcvpr.com; info@liga.coop; amaneser2020@gmail.com; hriviera@oipc.pr.gov; jriviera@cnslpr.com; carlos.reyes@ecoelectrica.com; ccf@tcmrslaw.com; manuelgabrielfernandez@gmail.com; acarbo@edf.org; pedrosaade5@gmail.com; rmurthy@earthjustice.org; rstgo2@gmail.com; larroyo@earthjustice.org; jluebkmann@earthjustice.org; acasellas@amgprlaw.com; loliver@amgprlaw.com; epo@amgprlaw.com; robert.berezin@weil.com; marcia.goldstein@weil.com; jonathan.polkes@weil.com; gregory.silbert@weil.com; agraitfe@agraitlawpr.com; maortiz@lvprlaw.com; rnegron@dnlawpr.com; castrodieppalaw@gmail.com; voxpopulix@gmail.com; paul.demoudt@shell.com; javier.ruajovet@sunrun.com; escott@ferraiuoli.com; SProctor@huntonak.com; GiaCribbs@huntonak.com; mgrpcorp@gmail.com; aconer.pr@gmail.com; axel.colon@aes.com; rtorbert@rmi.org; apagan@mpmlawpr.com; sboxerman@sidley.com; bmundel@sidley.com.

In San Juan, Puerto Rico, this 1<sup>st</sup> day of April 2021.

s/ Katuska Bolaños Lugo  
Katuska Bolaños Lugo

Exhibit A



# **Puerto Rico Electric Power Authority**

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Feasibility Study for Improvements to the PREPA's  
Hydroelectric System - Status Report  
March 29, 2021

- Status on Study Execution
  - PREPA and the Consultant have held 9 weekly progress meetings since the Notice to Proceed, which the project action list is discussed and how to address and solve any situation that arises during the study. Also, 2 meeting have been with the PREPA's Energy Control Center to address the necessities of the ECC regarding the communication and control of the hydro power facilities.
  - The Consultant visit the hydro facilities and submitted a Technical Memorandum regarding its findings and the meetings with the personnel operating the facilities.
  - The Consultant prepared and submitted a Water Availability Model Review which shows the existing water availability models that will be used in the net generation calculations to model the existing and potential capacity and energy generation for each facility.

- Status on Study Execution (Cont.)
  - The Consultant prepared and submitted a draft Installed Capacity & Average Annual Generation Technical Memorandum which shows A list of potential modifications and upgrades will be included in the separate Task 200 – Technical Memorandum evaluating generation capacity.

# Feasibility Study for Improvements to the PREPA's Hydroelectric System - Status Report – March 2021

- Project Timeline Status:**

Milestone	Date	Status
Procurement Process for Services (Scope of Work Evaluation, Cost, Deliverables and Timeline)	September 15, 2020 – November 19, 2020	Completed
Contract Negotiation & Signature	January 5, 2021	Completed
Submittal & Approval of Project Work Plan	January 27, 2021	Completed
Task 202 – Site Visit	Feb 8-12, 2021	Completed
Task 201 – Draft Site Visit Memorandum	March 5, 2021	Completed
Task 201 – Draft Generation Capacity Technical Memorandum	March 26, 2021	Completed
Task 300 – Complete Review Water Availability Models	March 19, 2021	Completed
Task 400 – Submit Draft Operating Scenarios & Technical Memorandum	April 23, 2021	
Task 500 – Submit draft Evaluation for Frequency Response and Remote Control & Technical Memorandum	March 26, 2021	
Task 600 – Submit draft Economic Feasibility Evaluation Report	April 23, 2021	
Task 700 – Submit draft Final Summary Report	June 2, 2021	
Project Complete, 160 days after NTP	June 22, 2021	



# Feasibility Study for Improvements to the PREPA's Hydroelectric System - Status Report

- Project Milestones Payments Breakdown & Status:**

Milestone	Payment Amount	Payment Approval Date
Task 200 - Kick-Off Meeting, Document Review, Project Planning, Mobilization	\$70,485	February 17, 2021
Task 200 - Site Visits Memorandum	\$60,660	March 18, 2021
Task 200 - Draft Technical Memorandum – Generation Capacity	\$30,206	
Task 200 - Final Technical Memorandum – Generation Capacity	\$5,849	
Task 400 - Draft Technical Memorandum – Operating Scenarios	\$83,330	
Task 400 - Draft Technical Memorandum – Operating Scenarios	\$10,130	
Task 500 - Draft Technical Memorandum – Frequency Response/RC	\$35,530	
Task 500 - Final Technical Memorandum – Frequency Response/RC	\$5,310	
Task 600 - Economic Feasibility Criteria	\$56,117	
Task 600 - Draft Economic Feasibility Report	\$56,117	
Task 600 - Final Economic Feasibility Report	\$4,676	
Task 700 - Draft Feasibility Study Summary Report	\$38,617	
Task 700 - Final Feasibility Study Summary Report	\$12,873	

# Feasibility Study for Improvements to the PREPA's Hydroelectric System - Status Report

## • Project Schedule:

ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors	% Complete	PREPA Feasibility Study Schedule											
								Qtr 3, 2020	Qtr 4, 2020	Qtr 1, 2021	Qtr 2, 2021	Qtr 3, 2021							
0		<b>PREPA Feasibility Study Schedule</b>	<b>113 days</b>	<b>Wed 1/13/21</b>	<b>Fri 6/18/21</b>		<b>50%</b>	PREPA Feasibility Study Schedule											
1	✓	PREPA Issues Notice-to-Proceed	1 day	Wed 1/13/21	Wed 1/13/21		100%	PREPA Issues Notice-to-Proceed 1/13											
2		Task 100 - Project Management	108 days	Wed 1/20/21	Fri 6/18/21		50%	Task 100 - Project Management 6/18											
3		Task 200 - Assessment of Hydropower Facilities	64 days	Wed 1/20/21	Mon 4/19/21		91%	Task 200 - Assessment of Hydropower Facilities 4/19											
4	✓	Task 201a - Preliminary Estimates Generation	29 days	Mon 2/15/21	Thu 3/25/21	9	100%	Task 201a - Preliminary Estimates Generation - Evaluation 3/25											
5		Task 201a - Prelim Est Generation Capacity -	1 day	Fri 3/26/21	Fri 3/26/21	4	95%	Task 201a - Prelim Est Generation Capacity - Submit Draft TM 3/26											
6		Conf Call - PREPA comments Gen Cap TM	1 day	Mon 4/12/21	Mon 4/12/21	SFS+10 days	0%	Conf Call - PREPA comments Gen Cap TM 4/12											
7		Task 201b - Prelim Est Generation Capacity -	5 days	Tue 4/13/21	Mon 4/19/21	6	0%	Task 201b - Prelim Est Generation Capacity - Submit Final TM 4/19											
8	✓	Task 202a - Review Site Data	13 days	Wed 1/20/21	Fri 2/5/21	15S+5 days	100%	Task 202a - Review Site Data 2/5											
9	✓	Task 202b - Site Inspections (all 10 sites)	5 days	Mon 2/8/21	Fri 2/12/21	15S+18 days	100%	Task 202b - Site Inspections (all 10 sites) 2/12											
10	✓	Task 202c - Site Visit Memorandum	15 days	Mon 2/15/21	Fri 3/5/21	9	100%	Task 202c - Site Visit Memorandum 3/5											
11																			
12	✓	Task 300 - Review Water Availability Models	15 days	Mon 3/1/21	Fri 3/19/21	45S+10 days	100%	Task 300 - Review Water Availability Models 3/19											
13																			
14		Task 400 - Review Reservoir Operation Curves	41 days	Mon 3/22/21	Mon 5/17/21		19%	Task 400 - Review Reservoir Operation Curves 5/17											
15		Task 400a - Rvw Reservoir Operation Curves -	24 days	Mon 3/22/21	Thu 4/22/21	12	25%	Task 400a - Rvw Reservoir Operation Curves - Evaluation 4/22											
16		Task 400a - Rvw Rsvr Operation Curves -	1 day	Fri 4/23/21	Fri 4/23/21	15	0%	Task 400a - Rvw Rsvr Operation Curves - Submit Draft TM 4/23											
17		Conf Call - PREPA comments to Rsvr Op Curves	1 day	Mon 5/10/21	Mon 5/10/21	16FS+10 days	0%	Conf Call - PREPA comments to Rsvr Op Curves Draft TM 5/10											
18		Task 400b - Rvw Rsvr Operation Curves -	5 days	Tue 5/11/21	Mon 5/17/21	17	0%	Task 400b - Rvw Rsvr Operation Curves - Submit Final TM 5/17											
19																			
20		Task 500 - Evaluate Frequency Response /	45 days	Fri 3/5/21	Thu 5/6/21		47%	Task 500 - Evaluate Frequency Response / Remote Control 5/6											
21		Task 500a - Freq Response/Remote Cntl -	25 days	Fri 3/5/21	Thu 4/8/21	9FS+14 days	65%	Task 500a - Freq Response/Remote Cntl - Evaluation 4/8											
22		Task 500a - Freq Response/Remote Cntl -	1 day	Fri 4/9/21	Fri 4/9/21	21	25%	Task 500a - Freq Response/Remote Cntl - Submit Draft TM 4/9											
23		Conf Call - PREPA comments to Freq	1 day	Mon 4/26/21	Mon 4/26/21	22FS+10 days	0%	Conf Call - PREPA comments to Freq Response/Remote Cntl 4/26											
24		Task 500b - Freq Response/Remote Cntl -	8 days	Tue 4/27/21	Thu 5/6/21	23	0%	Task 500b - Freq Response/Remote Cntl - Submit Final TM 5/6											
25																			
26		Task 600 - Economic Feasibility Evaluation	38 days	Mon 3/29/21	Wed 5/19/21		0%	Task 600 - Economic Feasibility Evaluation 5/19											
27		Task 600a - Economic Feasibility Evaluation	19 days	Mon 3/29/21	Thu 4/22/21	5,21SS+15 day	0%	Task 600a - Economic Feasibility Evaluation 4/22											
28		Task 600a - Economic Feasibility Eval - Submit	1 day	Fri 4/23/21	Fri 4/23/21	27	0%	Task 600a - Economic Feasibility Eval - Submit Draft Report 4/23											
29		Conf Call - PREPA comments to Economic Eval	1 day	Mon 5/10/21	Mon 5/10/21	28FS+10 days	0%	Conf Call - PREPA comments to Economic Eval Draft Report 5/10											
30		Task 600b - Economic Feasibility Eval - Submit	7 days	Tue 5/11/21	Wed 5/19/21	29	0%	Task 600b - Economic Feasibility Eval - Submit Final Report 5/19											
31																			
32		Task 700 - Final Summary Report	29 days	Tue 5/11/21	Fri 6/18/21		0%	Task 700 - Final Summary Report 6/18											
33		Task 700 - Prepare Final Summary Report	17 days	Tue 5/11/21	Wed 6/2/21	29	0%	Task 700 - Prepare Final Summary Report 6/2											
34		Task 700 - Submit Draft Summary Report	1 day	Thu 6/3/21	Thu 6/3/21	33	0%	Task 700 - Submit Draft Summary Report 6/3											
35		Conf Call - PREPA comments on Final Summary	1 day	Fri 6/11/21	Fri 6/11/21	34FS+5 days	0%	Conf Call - PREPA comments on Final Summary Report 6/11											
36		Task 700 - Submit Final Summary Report	5 days	Mon 6/14/21	Fri 6/18/21	35	0%	Task 700 - Submit Final Summary Report 6/18											

Project: PREPA Feasibility Study  
Date: Thu 3/25/21

Task		Project Summary		Manual Task		Start-only		Deadline	
Split		Inactive Task		Duration-only		Finish-only		Progress	
Milestone		Inactive Milestone		Manual Summary Rollup		External Tasks		Manual Progress	
Summary		Inactive Summary		Manual Summary		External Milestone			