

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

NEPR

Received:

Feb 16, 2021

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IN RE: IMPLEMENTATION OF THE
PUERTO RICO ELECTRIC POWER
AUTHORITY INTEGRATED RESOURCE
PLAN AND MODIFIED ACTION PLAN

CASE NO.: NEPR-MI-2020-0012

SUBJECT: Issuance of RFP and timeline for
filing responses to questions received from
stakeholders

**MOTION IN COMPLIANCE WITH ORDER SUBMITTING RESPONSES TO
STAKEHOLDER'S QUESTIONS**

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COMES NOW the Puerto Rico Electric Power Authority ("PREPA") through the undersigned legal representation and respectfully submits and requests as follows:

1. On January 26, 2021 the Puerto Rico Energy Bureau for the Public Service Regulatory Board ("Energy Bureau") entered Resolution and Order ("Order") regarding the "*Issuance of RFP and timeline for filing responses to questions received from stakeholders*" ("Timeline Order").
2. The Timeline Order was in response to previous orders from the Energy Bureau regarding PREPA's Procurement Plan, associated renewable energy Request for Proposal ("RFP") as well as the stakeholder meeting held on January 14, 2021.
3. During the stakeholder meeting various issues were discussed regarding the renewable energy RFP and an open exchange of questions and answers ensued. Notwithstanding, time constraints did not allow for all questions to be answered and as such the Energy Bureau provided stakeholders until January 19, 2021 to submit additional questions or comments that had not been addressed.
4. In response, the January 26, 2021 Timeline Order required PREPA to submit, within

twenty (20) days of the notification of the order, responses to the questions included in Appendix A.

5. In compliance with the Timeline Order, PREPA hereby submits the responses in Exhibit A to this motion.

WHEREFORE, in compliance with order, PREPA SUBMITS responses to stakeholder questions included as Exhibit A to this motion.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 16th day of February 2021.

s/ Maralíz Vázquez-Marrero
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Exhibit A to the Motion

Responses to Stakeholder's Questions

PREPA'S RESPONSES TO STAKEHOLDER QUESTIONS

SUBMITTED PURSUANT TO ENERGY BUREAU RESOLUTION AND ORDER OF JANUARY 26, 2021 (CASE NO. NEPR-MI-2020-0012) RELATING TO PREPA REQUEST FOR PROPOSALS NO. 112648, RENEWABLE ENERGY GENERATION AND ENERGY STORAGE RESOURCES (Tranche 1 of 6) (the "RFP")

February 16, 2021

#	STAKEHOLDER QUESTION	PREPA'S RESPONSE
Victor Gonzales		
1.	<p>If the proposal doesn't reduce electricity prices to levels consistent with the Certified Fiscal Plan projections, will the proposal be disqualified? 1.2b (page 5)</p>	<p>No. PREPA will not disqualify a project proposal that offers pricing that would not reduce electricity prices to levels consistent with Certified Fiscal Plan projections.</p> <p>While the projected price of renewable energy resources must comply with the dispositions of the Certified Fiscal Plan as required by the Puerto Rico Oversight, Management and Economic Stability Act ("PROMESA"), neither the Financial Oversight and Management Board of Puerto Rico ("FOMB") nor the Energy Bureau have communicated a pre-determined renewable energy price for this RFP. Nor will PREPA specifically assess whether a proposal will reduce electricity prices to levels consistent with the Certified Fiscal Plan as part of the RFP's evaluation criteria. The price of the proposed resource, however, forms one of the most important criteria under the RFP during the Phase II evaluation. The RFP will attribute 45% of the total points available for scoring of proposals to the price of a proposal. PREPA will also consider other non-price evaluation criteria during the scoring process such as (i) the technical viability, development status and financing plan of/for the proposed project, and (ii) the Proponent's experience. PREPA notes that each contract for renewable generation and storage resources that results from the RFP must be reviewed and approved by the Energy Bureau and the FOMB. In its review of other contracts PREPA has submitted, the FOMB has viewed impacts on electric rates assumed in the Certified Fiscal Plan as central to the question whether it should grant its approval.</p>

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Victor Gonzales		
2.	When assessing the proposal price, will avoidance of RPS non-compliance penalties be factor in? What would non-compliance penalties be price at?	No. PREPA will not specifically assess nor take account of "avoidance of RPS non-compliance penalties" when assessing the price of a proposed resource.
3.	[Is] meeting the RPS goals conditioned to the Fiscal Plan determined Renewable energy projected prices?	No. Neither the FOMB nor the Energy Bureau have communicated a pre-determined renewable energy price for the RFP. See PREPA's Response to Question 1 above. The RFP seeks proposals on a competitive basis, which aligns with the Energy Bureau's direction that "[a]ll renewable energy and battery storage procurements will be priced based upon competitive market pricing determined under the RFP process" (Resolution and Order of December 8, 2020 in Case No. NEPR-MI-2020-0012, RE: Evaluation of Draft Procurement Plan (" Energy Bureau Dec. 8 Order ") at Appendix A, Section VI, paragraph 3). Note, however, that the FOMB and the Energy Bureau will review and will need to approve each contract resulting from the RRP, and the FOMB has viewed potential impacts on the achievement of rates consistent with the Certified Fiscal Plan as significant it its decisions as to whether to approve other agreements PREPA has submitted in the past.
4.	[is] the IRP renewable energy mandate conditioned upon PREPA's and FOMB's pre-determined renewable energy prices?	No. See PREPA's Response to Question 3 above.
5.	Did the Fiscal Plan, IRP and PREPA's Board "pre-determined prices" for NEO of PV where based on a 1000 MW solar farm interconnected at the 105 bay of a Transmission TC? Is that, as the Sargent and Lundy consultant stated during the meeting, the reference price that PREPA and Sargent and Lundy will be using in this RFP to evaluate the proposals?	No. See PREPA's Response to Question 3 above. During the January 14 th Hearing convened by the Energy Bureau, a Sargent & Lundy (" S&L ") consultant referred to the following exhibits attached to PREPA's Integrated Resource Plan of 2019 (" IRP ") when discussing reference prices for solar PV and BESS: <ul style="list-style-type: none"> • Exhibit 6-31. Levelized Cost of Energy (LCOE) of Solar PV, Low Case Solar PV 2018 (\$/MWh); and • Exhibit 6-40. Li-Ion Battery System Capital Cost and Operating Cost Assumptions – Low Case"

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		The IRP presents the basis for the low case reference price in paragraph 16 of the Summary of the Energy Bureau's Findings and Orders (page 14) in the Resolution and Order of August 24, 2020 in case CEPR-AP-2018-0001. RE: Final Resolution and Order on the Puerto Rico Electric Power Authority's Integrated Resource Plan (" IRP Final Resolution ").
6.	What will a "pre-determined price" be for a PV and what will it be for a PV+BESS interconnected at a distribution feeder?	PREPA will not evaluate price proposals against a pre-determined price for any resource technology under this RFP. See PREPA's Response to Question 3 above.
7.	Can you provide the quantity of distributed feeders by feeder voltage types?	See below a list of the approximate number (subject to confirmation) of distribution feeders categorized by voltage level: <ul style="list-style-type: none"> • 4.16 kV: 701 feeders • 4.8 kV: 2 feeders • 7.2 kV: 23 feeders • 8.32 kV: 175 feeders • 13.2 kV: 449 feeders
8.	Can you provide the load curve of the distributed feeders by voltage type?	No. This information is not fully available.
9.	Will the redacted documents be available?	Yes. PREPA will make available (i) an unredacted version of the RFP to Proponents upon their completion of the registration requirements for the RFP and the submission to PREPA of a signed version of the NDA, and (ii) a version of the RFP to the public on the Energy Bureau and PREPA websites, with a limited amount of confidential information redacted.
10	What is the cost per MW and per kWh of the spinning reserves?	There is no single cost per MW and per kWh of spinning reserves. Moreover, such cost or costs are not in and of themselves relevant to the analysis of proposals made in response to the RFP. PREPA will not account for the cost (or price) of spinning reserves when assessing a proposed energy storage resource. Under the RFP, PREPA seeks to procure energy storage capacity, including capacity to (i) discharge

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		energy into the Grid System, (ii) receive charging energy for storage, and (iii) make available a range of Ancillary Services for the stabilization of the Grid System. Proponents of a stand-alone, utility-scale energy storage resource must submit a capacity payment price with their proposal, which will provide the Proponent with remuneration for the entire package of energy storage services.																																																	
11	Will BESS be able to reduce the amount of spinning reserve?	Likely, no, at least in the near term. The cumulative quantity of spinning reserves consistently needed to support the entire Grid System in Puerto Rico is unlikely to change in the near future (because the system is dependent on spinning reserves for reliability). But over time, battery energy storage systems (" BESS "), which inject energy into electric systems almost instantaneously, after reaching certain minimum scale, may enable to replace some of the spinning reserve resources on which PREPA must currently rely to maintain reliability.																																																	
12	What is the cost difference between a kWh delivered at the distribution level and at the transmission level?	<p>Please see below the average amount billed per kWh for fiscal years 2018-19 to 2020-21:</p> <table border="1"> <thead> <tr> <th colspan="7" style="background-color: #cccccc;">Average Total Cost (¢kWh) by Voltage Level</th> </tr> <tr> <th></th> <th colspan="3" style="text-align: center;">Total</th> <th colspan="3" style="text-align: center;"><i>Excludes Street Lighting</i></th> </tr> <tr> <th style="text-align: left;">Voltage Level</th> <th style="text-align: center;">2019</th> <th style="text-align: center;">2020</th> <th style="text-align: center;">2021*</th> <th style="text-align: center;">2019</th> <th style="text-align: center;">2020</th> <th style="text-align: center;">2021*</th> </tr> </thead> <tbody> <tr> <td>Primary Distribution</td> <td style="text-align: center;">22.81</td> <td style="text-align: center;">22.87</td> <td style="text-align: center;">19.92</td> <td style="text-align: center;">22.79</td> <td style="text-align: center;">22.85</td> <td style="text-align: center;">19.91</td> </tr> <tr> <td>Secondary Distribution</td> <td style="text-align: center;">22.57</td> <td style="text-align: center;">22.06</td> <td style="text-align: center;">18.81</td> <td style="text-align: center;">22.09</td> <td style="text-align: center;">21.61</td> <td style="text-align: center;">18.41</td> </tr> <tr> <td>Transmission</td> <td style="text-align: center;">19.70</td> <td style="text-align: center;">20.29</td> <td style="text-align: center;">16.67</td> <td style="text-align: center;">19.70</td> <td style="text-align: center;">20.29</td> <td style="text-align: center;">16.67</td> </tr> </tbody> </table> <p>* up to December 2020</p> <table border="1"> <thead> <tr> <th colspan="7" style="background-color: #cccccc;">Average Cost (¢kWh) of Basic Tariff by Voltage Level</th> </tr> </thead> </table>	Average Total Cost (¢kWh) by Voltage Level								Total			<i>Excludes Street Lighting</i>			Voltage Level	2019	2020	2021*	2019	2020	2021*	Primary Distribution	22.81	22.87	19.92	22.79	22.85	19.91	Secondary Distribution	22.57	22.06	18.81	22.09	21.61	18.41	Transmission	19.70	20.29	16.67	19.70	20.29	16.67	Average Cost (¢kWh) of Basic Tariff by Voltage Level						
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13	What is the cost difference between delivering a kWh at Vieques and Culebra and at San Juan?	While customer tariffs vary depending on customer type, the nature of the service and the regulations in force at the time of tariff application, tariffs do not vary across municipalities or regions in Puerto Rico. So, three different customers of the same type, requesting the same service and applying for a service at the same time, will pay the same tariff even though all three customers reside in different municipalities (<i>i.e.</i> , Vieques and Culebra and at San Juan).																																			
14	Will you take into consideration when assigning points to the proposal the savings in transmission losses, reducing spinning reserves and proximity to load that a PPOA PV+BESS delivers?	Yes. PREPA will take into consideration the system benefits of a proposed resource during the Phase II evaluation when assigning points. If PREPA also selects such proposal for Phase III evaluation, it will further consider these system benefits while conducting the interconnection analysis of such resource.																																			
15	Will a PPOA for a PV+BESS at a distribution feeder that provides the instantaneous demand of that feeder 24/7 be accepted?	No. While PREPA understands the potential benefits of distributed energy resources. PREPA will not consider distributed generation (" DG ") and BESS sized with enough capacity to supply the load of a feeder 24 hrs per day, seven (7) days a week for various reasons. DG and BESS designed to meet a feeder's load 24/7 would need to make available capacity in the order of multiple megawatts, since the system must be designed to capture, store and convert enough solar energy during daylight hours to supply the energy (MWh) of the feeder for multiple scenarios of feeder demand and available solar irradiance. PREPA's regulations that govern the																																			

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Victor Gonzales		
		interconnection of distributed generation systems allow only up to 1 MW of installed capacity per DG site.

#	QUESTION	ANSWER
Jean David		
1.	PREPA should require financial statements to pre-qualify expert parties	The RFP requires that Proponents submit their financial statements and other documentation, which PREPA will review to assess financial status. See RFP, § 4.5(a).
2.	Minimum Financial Requirements	The RFP includes minimum financial requirements. See RFP, § 4.5.
3.	Automatic Step down of PPA price, once PREPA is back in the market, is nonrealistic and represents an obstacle to Project Finance in light of Credit Offtake risk	<p>We disagree. The Energy Bureau has expressed a desire for Proponents to factor PREPA's emergence from Title III into their cost / pricing analysis. See, e.g., Energy Bureau Dec. 8 Order at Appendix A, Section VI, paragraph 11. The step-down provision addresses this desire.</p> <p>In principle, Offtaker Credit Risk can be expected to decrease upon the offtaker's (<i>i.e.</i>, PREPA's) emergence from Title III protection. Financing risk premiums should move accordingly. Proponents may refinance to capture resultant upside, and PREPA proposes, in line with the Energy Bureau's statements, that Proponents should share benefits of a reduction in financing costs with the people of Puerto Rico rather than keeping all of those benefits to themselves.</p> <p>Project financing and other financing structures can accommodate predictable, limited pricing adjustments. PREPA will let the market suggest the quantum of any step-down, any conditionality around it and alternative approaches to achieve this objective. PREPA will evaluate proposals competitively.</p>
4.	Project Proponents should have SITE CONTROL at the time of the proposal submission. This filters POTENTIAL vs REAL proposed projects	The RFP requires that Proponents demonstrate that they have site control upon the selection by PREPA of a Proponent's proposal for evaluation during Phase II. See RFP, § 6.7.

#	QUESTION	ANSWER
Jean David		
5.	Will Virtual PPs allow for project proponents to propose the justified rate ignoring wheeling charges but proposing market rates for the energy delivery points(nonexistent) within the grid?	<p>PREPA anticipates that Virtual Power Plant (“VPP”) Proponents will present proposals that assume multiple physical delivery points in the vicinity of the individual resources comprising the VPP (which the VPP proponent must coordinate) and need not include PREPA transmission or distribution use charges in their pricing. (Grid reliability issues factor into this preference.) PREPA does not anticipate that VPPs will need to procure wheeling service in order to provide contracted capacity and deliver energy to PREPA.</p> <p>PREPA will assess (i) the dispatchability and response capability of individual VPP resources at identified physical delivery points, and (ii) internal transmission and/or distribution use costs for such resources (and in the aggregate for a VPP) as it evaluates proposals. While not excluded, a VPP proponent presenting a single theoretical delivery point for all of its resources may rate less favorably on these factors than more flexible and better located solutions.</p>

#	QUESTION	ANSWER
SESA-PR		
A: Question for the Energy Bureau.		
1.	<i>Can PREB issue an order requiring that the entire RFP itself be Publicly Posted, in this docket, the same day it's issued, along with all Questions & answers submitted by and to bidders as part of the RFP procurement process?</i>	-
B: Questions for PREPA.		
1.	During the drafting process of this RFP thus far, which examples were used of successful recent RFPs for rapid integration of large quantities of renewable energy & storage?	<p>During the preparation of the RFP, PREPA and its advisors used and/or referenced the following requests for proposals seeking renewable generation and energy storage resources:</p> <ol style="list-style-type: none"> 1. Three RFPs issued by Northern Indiana Public Service Company ("NIPSCO") in 2019-2020, seeking solar, wind, solar and wind paired with storage and thermal/other capacity resources; 2. A Hawaiian Electric Company RFP seeking for the delivery of qualified grid services from customer-sited distributed energy resources (July 10, 2019) (Docket No. 2017-0352); and 3. Publicly available information for utility scale solar PV and BESS facilities in the 2018-2019 period, including projects solicited by or involving NV Energy, City of Austin, Pacific Gas and Electric Company, Dominion Energy, Xcel Energy, Southern California Public Power Authority, and Los Angeles Department of Water and Power.

#	QUESTION	ANSWER
SESA-PR		
		<p>PREPA and its advisors also reviewed, and in some cases adapted, provisions taken from energy storage service agreement forms developed for use in several mainland U.S. energy markets, including:</p> <ol style="list-style-type: none"> 1. Pro-Forma Energy Storage Agreement between Pacific Gas and Electric Company and [●] (developed for use with new projects that have transmission level interconnection with the CAISO); 2. Energy Storage Services Agreement between Orange and Rockland Utilities, Inc. and [Owner] (to procure bulk energy storage scheduling and dispatch rights as directed by the New York State Public Service Commission); and 3. Energy Storage Services Agreement between Consolidated Edison Company of New York, Inc. and [Owner] (to procure bulk energy storage scheduling and dispatch rights as directed by the New York State Public Service Commission).
2.	<p>What guiding principles were gleaned from analyses of these exemplary successful RFPs?</p>	<p>Without characterizing the above-referenced request for proposals as necessarily being successful (procurement under them still not having been completed in most cases), PREPA identified contract provisions, particularly as regards energy storage services, that were useful in developing a form of Energy Storage Services Agreement. PREPA also culled from the Hawaiian Electric grid services RFP some useful information relating to the establishment of aggregator-software provider and aggregator-resource owner contractual relationships, which will inform its development of contracts that will govern such relationships between PREPA and VPP Proponents and between VPP Proponents and owners of resources aggregated into VPPs.</p>

#	QUESTION	ANSWER
SESA-PR		
3.	<p>Were any of the following RFPs considered when crafting the current RFP? If so, which ones? If not, could their merits be considered while finishing drafting of the pending RFP?</p> <p><i>Example 1</i></p> <p>Utility: Hawaiian Electric Company (HECO)</p> <p>Scope: 900 MW Renewables, 240 MW Storage</p> <p>Document: Bid Documents & Procedures *July 2019)</p> <p>Link to Document</p> <p><i>Example 2</i></p> <p>Utility: City of San Antonio Texas, "CPS Energy"</p> <p>Scope: 900 MW Solar, 50 MW Storage, and 500 MW "All-Source"</p> <p>Document: Bid Documents & Procedures (November 2020)</p> <p>Link to Documents</p> <p><i>Example 3</i></p> <p>Utility: Northern Indiana Public Service Company (NIPSCO)</p>	<p>PREPA and its advisors considered the request for proposals cited as Examples 1, 2 and 3 in the formulation of the Tranche 1 RFP. (Note that the NIPSCO 2019-2020 RFPs referenced as Example 3 sought solar, wind, solar and wind paired with storage and thermal/other capacity resources, not demand side management.) The Hawaiian Electric RFP seeking the delivery of qualified grid services from customer-sited distributed energy resources identified as Example 1 informed PREPA's thinking regarding the solicitation of VPP resources, in particular.</p> <p>PREPA has completed the drafting of the Tranche 1 RFP documents, and therefore further consideration of the merits of the cited RFPs and others that may be instructive will need to await the development of the Tranche 2 and subsequent Tranche RFPs.</p>

#	QUESTION	ANSWER
SESA-PR		
	<p>Scope: 1,485MW of Solar, Wind, & Demand Side Management</p> <p>Document: Bid process overview and results (February 2020)</p> <p>Link to Document</p>	
C: Questions for Sargent & Lundy.		
1.	<p>What is the total dollar amount of the assumed FEMA funding to be used to fund “peaking generators and the combined-cycle power plant”?</p>	<p>The following three questions focus on funding which PREPA assumes the Federal Emergency Management Agency (“FEMA”) will make available to support the reconstruction of Puerto Rico’s electric system. FEMA has announced a funding obligation of \$10.7 billion which has been earmarked for PREPA to repair and/or replace electrical systems, including thousands of miles of transmission and distribution lines, electrical substations, generation systems, office buildings, and to make other grid improvements under FEMA’s Public Assistance Alternative Procedures, pursuant to Section 428 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the “Stafford Act”), 42 U.S.C. § 5189f. The questions appear to refer to plans to devote some of the FEMA-obligated amounts to the replacement of peaking generators and the construction of a new combined cycle generating facility described in the 10-Year Infrastructure Plan which PREPA prepared in December 2020 (the “10-Year Plan”) in compliance with requirements imposed by FEMA and the Central Office for Recovery, Reconstruction and Resiliency (“COR3”) following FEMA’s funding obligation announcement.</p> <p>The total dollar amount identified in the 10-Year Plan to fund the replacement of existing peaking units with dual-fuel (natural gas and diesel) combustion turbine generating facilities having expected generating capacity of approximately 330 MW is \$280.80 million. The estimated amount to fund construction of a new natural gas and diesel fueled combined cycle combustion turbine near San Juan is \$572.40 million. These dollar amounts are assumed to be funded through FEMA’s Section 404 program, which is intended to support “hazard mitigation” projects designed to increase the resilience of facilities or systems from damage due to disasters.</p>

#	QUESTION	ANSWER
SESA-PR		
		<p>The amounts that FEMA has indicated it will provide to fund design and construction of the combined cycle and simple cycle gas turbine facilities identified in the 10-Year Plan are:</p> <p><u>Phase I – Engineering:</u></p> <ul style="list-style-type: none"> • Detailed Scope of work • Cost estimates and schedule • Preliminary Design Plans and technical specifications • Benefit Cost Analysis • Environmental Data Collection <p><u>Projects:</u></p> <ul style="list-style-type: none"> • Combined Cycle – FEMA Obligated \$13,507,500 • Simple Cycle Gas Turbines – FEMA Obligated \$12,700,000 <p><u>Phase II – Construction:</u></p> <ul style="list-style-type: none"> • Final design • Permits • Construction <p><u>Projects:</u></p> <ul style="list-style-type: none"> • Combined Cycle – Pending FEMA approval \$558,869,550 • Simple Cycle Gas Turbines – Pending FEMA approval \$268,122,500
2.	What is this total, separated by FEMA 404 and FEMA 428 funds?	<p>The 10-Year Plan assumes that FEMA will make available funds that would support PREPA’s construction of new combustion turbine generating facilities in various locations and a new combined cycle generating facility near San Juan under the Section 404 Hazard Mitigation program. The amounts identified in the 10-Year Plan which FEMA will provide under Sections 404 and 428 to fund construction of the identified combined cycle, simple cycle and black start turbine facilities are:</p>

#	QUESTION	ANSWER
SESA-PR		
		<p><u>Projects – FEMA 404 (Not to Exceed):</u></p> <ul style="list-style-type: none"> • Combined Cycle – \$572,377,050 • Simple Cycle Gas Turbines – \$280,822,500 <p><u>Projects – FEMA 428:</u></p> <ul style="list-style-type: none"> • Black Start Gas Turbines – \$75,096,833
3.	<p>Is there any reason why a portion of, or the entirety of, these funds, rather than being spent on new natural gas plants, couldn't be instead requested to be spent directly on renewable energy and/or battery storage?</p>	<p>The question refers to FEMA funding that PREPA would use to (i) replace PREPA-owned peaking generating facilities with new, dual-fuel combustion turbine peaking units, and (ii) develop and construct a new PREPA-owned 300-400 MW dual-fuel combined cycle generating facility near San Juan, which the U.S. Department of Energy has recommended as a means of supporting Grid System reliability and resiliency. FEMA would furnish the funding assumed in the 10-Year Plan to support construction of new gas- and diesel-fueled generating capacity under the Section 404 Hazard Mitigation program.</p> <p>Because Puerto Rico law, energy public policy and Energy Bureau directives require that third parties, rather than PREPA, develop, construct and own new generation and energy storage resources going forward, as a legal and practical matter FEMA cannot make funding available "to be spent directly on renewable energy and/or battery storage." Under the Stafford Act and its implementing regulations, FEMA can only make funding generally available to support construction of facilities to be owned by "eligible applicants," which among other things must be a State, territory, tribal government, local government or non-profit entity. Stafford Act, 42 U.S.C. § 5189f (b).</p> <p>FEMA would likely reject any request by PREPA to use FEMA Section 406/428 or 404 funding to develop renewable energy resources to be owned by private (investor-owned) parties (rather than by PREPA, which unlike a private entity, does qualify as an "eligible applicant," see 42 U.S.C. § 5189f (b)). While it is theoretically possible, with FEMA approval, to arrange for the transfer of FEMA funding or projects constructed with funding provided under the Section 428 fixed estimate, the transferee must be a government or non-profit entity that is an "eligible applicant" under 44 C.F.R. § 206.222. An eligible applicant can contract with for-profit entities to construct a facility approved for funding under Section 406/428 or 404, but the legal responsibility for the facility (generally established by ownership) must remain with</p>

#	QUESTION	ANSWER
SESA-PR		
		<p>the eligible applicant, in this case PREPA. This is not the model assumed in current Puerto Rico energy public policy and in the Integrated Resource Plan and Modified Action Plan which the Energy Bureau has approved.</p> <p>According to FEMA guidelines. the objective of mitigation planning is to "...break the cycle of disaster damage, reconstruction and repeated damage. Hazard mitigation includes long-term solutions that reduce the impact of disasters in the future." Applications to FEMA that are based on appropriate mitigation plans in accordance with FEMA's guidelines are most likely to be accepted by FEMA during their review process. It is important to propose a project that will alleviate the problem, or in the case of Puerto Rico's recent applications, ensure reliable, emergency power generation services to critical facilities in the aftermath of large tropical storms or natural disasters. Emergency power generation equipment, which is an appropriate solution for safety and security, is listed as an eligible project under FEMA's hazard mitigation guidelines.</p> <p>The FEMA 404 projects were requested as a means of responding to natural disasters such as the 2017 hurricanes (Irma and Maria) under the FEMA Public Assistance Alternative Procedures (Section 428) Guide for Permanent Work FEMA-4339-DR-PR dated February 2020 and FEMA's 404 Hazard Mitigation Grant Program under the authority of the Stafford Act. The hazard mitigation projects for which applications were submitted would improve the resiliency of the power system and will be designed to be functional during or soon after future disasters. Additionally, the proposed projects would be robust and would protect federal investments in Puerto Rico's public infrastructure against future losses. The emergency power generation technology proposed to mitigate future weather disasters are the construction of a power plant tied to the existing underground electrical distribution loop around the San Juan metropolitan area, emergency power equipment at various locations around the island, and emergency black start systems for the Aguirre and Costa Sur power plants. These systems are able to withstand strong class 5 hurricane forces and seismic events and the design life of these facilities is 30 years or more. These emergency generation resources are best suited for power generation service soon after a major catastrophic event—day or night, in any prevailing weather condition.</p>

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D: Questions for Sargent & Lundy.		
1.	<p>On the Renewable Integration Report (December 2020), P. 54 & 55 of the PDF, labeled P. 44 & 45) is a "Estimated Comparison of FEMA Funded Peaking Generator to BESS", comparing the costs of new natural gas peaker plants with new large-scale battery storage. Please provide all of the information that's redacted on these pages. If there's an assertion that any of this information should be confidential, please plainly state the reasons for this assertion.</p>	<p>PREPA must treat all redacted information on these pages as confidential to prevent such information from influencing the outcome of near-term procurement processes.</p>
2.	<p>The stated conclusion is "The natural gas peaking generator is somewhat less expensive than the BESS if FEMA funding can be utilized for the installation of the peaking generator." This apparently implies that, without FEMA funding, building new BESS would be more economical than building new peaker plants. Please confirm if this implication is correct – ie please confirm whether, in this analysis, if removing the assume FEMA</p>	<p>For a description of how PREPA may use FEMA funds associated with hazard mitigation solutions, see PREPA's Response to Question 3 in the Section captioned "C. Questions for Sargent & Lundy".</p>

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	funding support for the installation of peaking generators, that BESS is more economical.	
3.	Question for Sargent & Lundy: Please provide this same analyses, assuming that no FEMA funding is utilized for the installation of peaking generators, but that the same amount of FEMA funding previously assumed to be used for peaking generators is instead utilized to support BESS.	For a description of how PREPA may use FEMA funds associated with hazard mitigation solutions, see PREPA's Response to Question 3 in the Section captioned "C. Questions for Sargent & Lundy".
E: Questions for Sargent & Lundy.		
1.	Please share all data utilized in order to derive the stated conclusion that a total of 650 MW of renewables can exist on the grid as it is today.	This analysis determined, at a high level, the amount of inverter based renewable generation which PREPA could incorporate in the Grid System in its current condition while maintaining system stability and reliability. As part of this analysis, S&L (i) considered the system inertia and frequency and system protection schemes as part of the analysis, and (ii) utilized the transmission system planning tool and Power System Simulator for Engineering (PSS/E) from Siemens PTI for the system reliability analysis. PREPA created, owns and maintains the PSS/E model of the Grid System. As the PSS/E model contains information about those Grid System assets, classified by PREPA as Critical Energy/Electric Infrastructure, PREPA treats this information as confidential, which it will not disclose. The S&L analysis considered the current Grid System condition as it is today, the availability of generation and it did not include any additional support such as stand-alone grid-scale battery systems.
2.	Subtracting out all known installed inverter-based renewable energy today, please	The 1000 MW renewable number will include system upgrades and will utilize the 500 MW Battery Storage to support integration of renewables. S&L based the 650 MW renewable

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	clarify the amount of additional MW of inverter-based renewables could be installed on the current grid as it is today.	energy integration limitation on an analysis that considered limits to renewable integration to the Grid System in its current condition.
3.	Please clarify your recommendations on how much spending would be required, and on what, in order for PREPA's power grid to be able to accommodate the required 3,500 MW of new renewables coming online by 2025.	<p>PREPA appreciates the importance of confirming that renewable and energy storage capacity being offered can actually be interconnected with and integrated into PREPA's transmission and distribution system in manner that does not adversely affect system reliability and security and grid strength. PREPA has identified this as a fundamental concern in its ongoing interactions with the Energy Bureau focused on the implementation of the approved IRP and the Procurement Plan.</p> <p>PREPA and its advisors have been diligently working to establish the amount of renewable generation and energy storage capacity that can be integrated into PREPA's transmission and distribution system in its current state. They have also been performing studies intended to identify at a high level the system upgrades and improvements that will be required to accommodate the interconnection of additional renewable generation and energy storage resources in line with the targets for renewable generation and energy storage procurement the Energy Bureau has established. We have shared this information with the Energy Bureau.</p>

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		<p>PREPA will evaluate in each RFP Tranche the impacts of interconnecting proposed generation and storage resources in specific locations once it has "short listed" proposals that rank most highly against the selection criteria identified in the RFP documents. Through these evaluations, PREPA will identify the interconnection facilities and system upgrades and improvements required to interconnect and integrate the specific resources, as well as the estimated costs of these upgrades and improvements. Because the system upgrades and improvements required to interconnect and integrate new resources are both location-specific and resource-specific, PREPA cannot know with certainty today precisely what grid modifications - "will be required to enable the future integration of renewables into the grid." Nor, for this reason, can PREPA provide at this time "a detailed plan to address and solve any potential longer-term renewable energy penetration issues," as the Energy Bureau has directed in its February 3, 2021 Resolution and Order in Case No. NEPR-MI-2020-0012. PREPA cannot develop plan with "a detailed description of the work required and a timeline" for interconnection and integration of renewable energy and storage resources until it has received and assessed proposals pursuant to the RFP.</p> <p>The location, nature, timing and cost of required grid modifications can only be identified in the context of specific resource addition proposals as they are made and ultimately selected for contract negotiation. PREPA will, however, ensure that all grid modifications required to interconnect renewable and energy storage resources into the grid are properly identified, costed out and the costs appropriately assigned to individual Proponents before entering into binding Power Purchase and Operating Agreements or Energy Storage Services Agreements. PREPA believes that in this way it will be able to comply with the FOMB's directive that it ensures that the additional renewable generation and energy storage capacity it is offered can be integrated into the grid.</p>
F: Questions for Sargent & Lundy.		
1.	Why was the specific number 60% chosen, as opposed to a different number other than 60%?	S&L selected the 60% limitation on the basis of the electrical analysis performed within the study. As stated in the study, "Our analysis indicates that the risk of system instability and load shedding following a disruption will increase substantially if instantaneous inverter-based

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		generation levels are allowed to go beyond 60%.” In addition, S&L will revisit this limitation on a regular basis, with the expectation that such limitation will increase in the future.
2.	What % are we at today?	The percentage of instantaneous inverter-based generation on the grid today varies both daily and over the course of each day. It is based not only upon the amount of inverter-based generation injecting energy at each point in time, but also the amount of system load at each point in time (and thus the amount of synchronous generation operating at each point in time). Based on the number of inverter-based resources currently operating in Puerto Rico, inverter-based generation on average accounts for up to 15% of total generation at peak times during the daytime in Puerto Rico.
3.	Would this limitation of 60% translate to a limitation of the % of renewable energy produced on an annual [basis] by inverter-based renewable energy? If so, to what extent would this 60% limitation inhibit coming online by 2025?	Converting this limitation from an instantaneous basis to an annual basis requires knowledge of the types of resources with different generation profiles (e.g., solar PV versus wind, etc.) installed on the system, which will change over time. It would also require knowledge of the amount of BESS capacity that is in operation and available to PREPA to shift inverter-based generation away from the time of day when such limitation would take effect. (Not all BESS capacity connected to the PREPA system is available to shift inverter-based generation from one period to another; much of the BESS currently installed in facilities connected to the PREPA Grid System is installed to meet Minimum Technical Requirements, or has been installed to provide backup at customer facilities for customer consumption; neither category of BESS is available to PREPA to address the need to shift inverter-based renewable energy between time periods.) At maximum, the 60% limitation would correspond to a limit of 60% annual inverter-based generation by 2025.
4.	Section 2.4, P. 20 says: “...The highest instantaneous penetration of inverter-based renewable energy generation studied in that report is 1,316 MW with 400 MW supplied by Distributed Generation. This level of inverter-based renewable power generation is equivalent to approximately	As stated in PREPA’s Response to Question 2 above, the percentage of instantaneous inverter-based generation (“ IIBG ”) on the grid varies both daily and over the course of a day, based not only upon the amount of IIBG injecting energy at each point in time, but also the amount of system load at each point in time (and thus the amount of synchronous generation operating at each point in time). Energy storage systems could (i) store IIBG made available at a given point in time, which PREPA could not otherwise dispatch due to the 60% limitation, and (ii) reinject such energy into the Grid System at later points in time with lower IIBG availability. Your calculation of 1,579 MW appears correct for the specific instance in time at which 1,316 MW represented 50% of IIBG.

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	<p>50% of instantaneous renewable penetration.”</p> <p>If 1,316 MW of inverter-based renewable generation is equivalent to approximately 50% of instantaneous renewable generation, what amount of inverter-based renewable energy generation is equivalent to the 60% number recommended on P. 8 of this study? Would it be (60% / 50%) * 1,316 = 1,579 MW?</p>	
5.	<p>What timeframe is referred to by “... for the near to intermediate future”?</p>	<p>As (i) the timing by which the recommended limitation would increase materially depends on PREPA’s completion of the system improvements / modifications, and (ii) the process of planning and implementation of these improvements / modifications remains a work in progress, S&L cannot provide a more specific timeframe than “the near to intermediate future”.</p>
6.	<p>P. 21 of the PDF states: “...S&L conducted an earlier analysis of the PREPA system to determine the maximum instantaneous inverter-based renewable energy penetration level that can be incorporated into PREPA’s power grid as it exists today, while maintaining acceptable frequency response.”</p> <p>When was this “earlier analysis” conducted?</p>	<p>S&L completed this earlier analysis in mid-2020.</p>

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7.	Were the inputs into, and conclusions of, this “earlier analyses” publicly published? If so, where can they be found?	S&L prepared this analysis for PREPA’s internal analysis/evaluation. PREPA did not publish it. The Renewable Integration Report (December 2020), however, did include this 650 MW renewable integration limitation.
8.	P. 26 OF THE pdf, Table 3-2 – “Modeled Renewable Energy Generation”, states “291 MW of Dispatched Real Power – Pgen (MW). How was this number of 291 MW derived? What data was it based upon? What assumptions were made about the growth of Distributed Generation for the last few years, as compared to projected growth over the next few years?	Table 3-2 reflects the inputs and assumptions made for the specific contingency events analyzed in the study. A contingency event examines a system disturbance at a specific point in time over a day and Table 3-2 represents the assumed quantity of generation available for dispatch at that point in time, not the cumulative installed generation of the system. The methodology followed for this analysis aligns with accepted electrical industry standards.
9.	Why does this chart state that there are 65.5 MW of “Existing Renewables”?	Please see PREPA’s Response to Question 8 above.
10.	Why does this chart show 1,015 MW of “New Solar PV Resources”, when the IRP calls for development of at least 3,500 MW of new renewables to be online by 2025?	Please see PREPA’s Response to Question 8 above.
11.	P. 44 of the PDF categorizes “New Technologies to Support a High Penetration of Renewable	To S&L’s knowledge, no other large power grid located on the US mainland has ever implemented the new technologies, specifically grid forming inverters, at the scale of the renewable integration program undertaken by PREPA described in this RFP. This program

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	<p>Energy” as a “Mid / Long Term” recommendation.</p> <p>Why would “New Technologies to Support a High Penetration of Renewable Energy” be considered “Mid / Long Term”, as opposed to “Short / Mid Term”, or some other term?</p>	<p>exposes the Grid System to a risk of unreliability and instability by implementing in Puerto Rico technology that has not been fully tested at this scale. PREPA will consider the grid forming inverters technology in future RFP Tranches.</p>
12.	<p>P. 47 of the PDF states “... Our modeling indicates that with the integration of the 2,750 MW of new inverter-based renewable energy resources shown in Table 4-2 (new solar PV and new wind resources), an estimated [BLACKED OUT] of energy storage resources are needed for PREPA to be able to both meet the 2025 RPS target and ensure that no more than 60% of all instantaneous generation comes from inverter-based generators.”</p> <p>What is the information that is blacked out? If there’s an assertion that this information is “confidential”, on what, specifically, is that assertion based?</p>	<p>PREPA must treat all redacted information on these pages as confidential to prevent such information from influencing the outcome of near-term procurement processes.</p>

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G: Questions for PREPA.		
1.	What process was used to procure the contract with Sargent & Lundy to do the Renewables Integration study published in December 2020?	Sargent & Lundy was selected from a Request for Proposals to procure professional services for technical support and initiatives, including assistance in planning and modeling new projects.
2.	What firms, other than Sargent & Lundy, were considered for this study?	Burns & McDonnell and Black & Veatch.
3.	What was the rationale for selecting Sargent & Lundy, as opposed to any other firms considered?	Sargent & Lundy had the highest score in the evaluation process, having offered a detailed plan and approach to comply with the scope of services required in the RFP.
4.	What stakeholders gave input in the development of content of this study?	The study is based on PREPA's data furnished by PREPA's T&D, Operations, and Generation Directorates, and input from the Planning Directorate. It is in compliance with the IRP Final Resolution.
5.	<p><i>Questions for PREB:</i></p> <p>1) <i>If any stakeholders wish to assert that the Renewables Integration Study is substantially inaccurate, what mechanisms exist to prevent the December 2020 study from being an impediment to the success of this 1,000MW RFP?</i></p> <p>2) <i>If PREB deems this Renewable Integration Study as inadequate, does PREB have the</i></p>	-

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	<p><i>authority to order that a different study be conducted?</i></p> <p><i>3) If PREB deems that the selection process for choosing Sargent & Lundy as the administrator of this study was sufficiently flawed, does PREB have the authority to require a broader selection process to occur in order to ensure that the most qualified firm available is chosen to administer this study, with ample stakeholder input?</i></p>	
H: Question for PREB:		
1.	<p><i>Has PREB considered appointing an Independent Observer to play a key role in this RFP process, similar to how happened with the recent similar RFP in Hawaii?</i></p>	-

#	QUESTION	ANSWER
Local Environmental Organizations		
1.	Describe the relationship between T&D investments and the amount of onsite generation.	<p>If a specific site with onsite generation had sufficient generation to supply all internal loads and the site required no energy from the transmission system, then T&D investments may not be required to serve loads located within the site.</p> <p>If a specific site with onsite generation had sufficient generation to supply all internal loads but required a connection to the transmission system as backup, then T&D investments may be required to ensure that the full generation demand of the site could be supplied from the transmission system when necessary.</p>
2.	Could T&D investments be reduced in a scenario with high onsite generation?	Yes. T&D investments could be reduced in a scenario in which a site is completely self-sufficient and does not require a back-up connection the transmission system, therefore alleviating demand on the transmission system.
3.	Could federal funds available to PREPA be used to make onsite solar + storage accessible to PR ratepayers?	<p>No, assuming that (i) by "federal funds available to PREPA" the question refers to federal funding provided by FEMA under Sections 428 or 404 of the Stafford Act, and (ii) "mak[ing] onsite solar + storage accessible to PR ratepayers" means funding the purchase and installation of solar and storage resources that would be owned by individual ratepayers or any entity other than PREPA or another "eligible applicant."</p> <p>PREPA and FEMA have formally agreed that PREPA will receive \$10,704,730,227.54 under FEMA's Stafford Act Section 428 Public Assistance Alternative Procedures for Permanent Work Program. This amount represents a fixed-estimate, agreed to by FEMA and PREPA, of the eligible cost to repair, restore, reconstruct, and replace PREPA facilities damaged by Hurricanes Irma and Maria. Under this program, PREPA is currently the "eligible applicant" that will receive and expend the funding.</p>

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Local Environmental Organizations		
		<p>Eligible applicants for FEMA Section 406/428 and 404 funding are state and local governments, private non-profit entities, and Indian tribes or other authorized tribal organizations. 44 C.F.R. §§ 206.222 and 206.434(a). Eligible applicants <i>do not</i> include private, for-profit entities or individuals. While in theory it would be possible, with FEMA approval, to arrange for the transfer of FEMA funding provided under the Section 428 fixed cost estimate, the transferee must be a government or non-profit entity that is an “eligible applicant” under 44 C.F.R. § 206.222.</p> <p>Facilities constructed with Section 428 funding must be “otherwise eligible for [FEMA Public Assistance] funding pursuant to Section 406 of the Stafford Act.” See Guide for Permanent Work in Puerto Rico Public Assistance Alternative Procedures (Section 428), September 2020 at 17-18. Accordingly, facilities constructed with FEMA funding, whether through Section 406 or Section 428, must be and remain the legal responsibility of PREPA as the eligible subrecipient of the grant. See 44 C.F.R. § 206.223(a)(3); 2 C.F.R. § 200.329. A facility constructed with FEMA funding with the express intention that title to that facility would be held by or transferred to a private partner would likely be ineligible because the new facility would not be the legal responsibility of PREPA, the eligible applicant for FEMA Public Assistance. 44 C.F.R. § 200.223(a)(3).</p>

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Local Environmental Organizations		
4.	<p>PREPA is seeking billions of dollars from the Federal Emergency Management Agency ("FEMA"). Has FEMA imposed any restrictions that would prohibit investing these monies in renewables, storage, or distributed renewables + storage? If so, please provide documents detailing these restrictions.</p>	<p>The Stafford Act imposes certain restrictions on the manner in which FEMA funds may be expended. FEMA approval of expenditures of FEMA funds is generally required. Moreover, Puerto Rico energy public policy, expressed in Act 57- 2014 (the <i>Puerto Rico Energy Transformation and RELIEF Act</i>, as amended), Act 120-2018 (the <i>Puerto Rico Electric Power System Transformation Act</i>, as amended), Act 17-2019 (the <i>Puerto Rico Energy Public Policy Act</i>), and the Energy Bureau-approved Integrated Resource Plan in effect preclude PREPA from being involved in the development of new renewables, storage and distributed renewables plus storage in the manner that would be legally required in order for such development to be eligible for federal funding under the Stafford Act.</p> <p>Section 428 provides PREPA (or an approved transferee; see above) the flexibility to use the \$10.7 billion in funding to which FEMA and PREPA have agreed to restore Puerto Rico's electric system in a manner determined to best serve the people of Puerto Rico. In undertaking these restoration activities, PREPA may employ methods and technologies that comply with local regulations and meet the demands of the communities PREPA serves. It may make use of technologies such as solar, wind, micro-grid, and battery power, subject to the requirements limiting the universe of "eligible applicants" described above and to the additional requirement that proposed scopes of work incorporating renewables and technologies not currently employed in the grid (e.g., battery energy storage systems) must be submitted to FEMA for approval. See Guide for Permanent Work in Puerto Rico Public Assistance Alternative Procedures (Section 428), September 2020 at 16. FEMA approval will turn on the results of FEMA's evaluation as to whether the proposed project meets general Public Assistance eligibility, Environmental and Historic Preservation ("EHP") requirements, applicable codes and standards, and industry standards, among other things. (Failure to receive FEMA approval prior to construction of any project may jeopardize funding under Section 428.)</p>

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		<p>In theory, PREPA could use Section 428 funding to construct new solar and battery energy storage facilities in lieu of repairing existing fossil fuel generating facilities. But for this to be a prudent course of action PREPA would have to conclude that such facilities could be procured and installed in a time frame and at a scale that would not unreasonably expose Puerto Rico to the risk of generating capacity shortfalls. This risk would be particularly substantial because if it were to elect to forgo repairs to existing fossil generating facilities, PREPA would almost certainly be ineligible to receive federal funding following future disasters for repairs to the same fossil fuel plants. See FEMA Public Assistance Program and Policy Guide, Version 3.1 at 115. To be eligible for FEMA assistance in a future disaster, damaged facilities must be repaired to current codes and standards. Moreover, PREPA would need to be the entity that would construct, own and operate the new renewable and energy storage facilities constructed to replace existing fossil generation in order for Section 428 funding to be available, which is not the role Puerto Rico energy public policy or the approved Integrated Resource Plan contemplate for PREPA going forward.</p> <p>PREPA has assumed that the cost of procuring replacement peaking combustion turbine generating facilities and a new combined cycle combustion turbine generating facility near San Juan, which PREPA would own even if it were to contract with third parties for operation, would be covered under FEMA’s Hazard Mitigation Grant Program (“HMGP”), which is separate and distinct from Section 428. Section 404 HMGP grants are not based upon damage to any particular applicant facilities. Priorities for Section 404 Hazard Mitigation funding are established by Puerto Rico and grant eligibility is determined in accordance with the 2015 Hazard Mitigation Assistance Guidance. See FEMA Public Assistance Program and Policy Guide, V3.1 at 30; see also FEMA Hazard Mitigation Guidance portal, available at https://www.fema.gov/grants/mitigation/hazard-mitigation-</p>

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Local Environmental Organizations		
		<p>assistance-guidance. The purpose of the Section 404 program is to reduce the risk of future loss of life and property from natural disasters.</p> <p>As the administrator of Section 404 funding, Puerto Rico (through COR3) establishes project priority for the use of available HMGP funding. See COR3 Transparency Portal, available at https://recovery.pr/en/recovery-programs/hazard-mitigation-assistance. To date, \$450,000,000 of the available Section 404 funding is prioritized for mitigation projects related to power infrastructure. COR3 is responsible for evaluating projects for eligibility and conformance with the goals of Puerto Rico’s Multi Hazard Mitigation Plan (“MHMP”), establishing priorities for funding Section 404 projects, and submitting applications to FEMA for consideration. See 2015 FEMA Hazard Mitigation Guidance at 5.</p> <p>In theory, facilities employing renewable generation or energy storage technologies might be eligible for Section 404 HMGP funding if it could be shown that the proposed project would reduce the risk of loss to life and property from future natural disasters and that the project conforms to the goals of Puerto Rico’s MHMP and, of course, that the funding was being sought by an eligible applicant (see above). But there is significant doubt that renewable generation and energy storage projects can actually increase the resilience of the electric grid or generation resources and could reduce the risk of damage in future disasters, given the vulnerability of solar photovoltaic panels to wind damage and the likelihood that severe weather events would limit the ability of solar generation resources or the T&D grid to charge depleted batteries during or following the event. Moreover, if the principal advantage of renewables plus storage installations is a reduction in emissions and in the reduced utilization of existing fossil fuel generation plants, then the project would not be eligible for Section 404 funding. Note as well that, in addition to the requirement that a project must qualify as an eligible activity that conforms to Puerto Rico’s MHMP, Section 404 hazard mitigation projects must be cost-</p>

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		<p>effective, technically feasible, and comply with all FEMA EHP requirements. See 2015 Hazard Mitigation Guidance at 47.</p> <p>For additional detail concerning the justifications for the proposed replacement and addition of fossil generation resources as hazard mitigation measures eligible as such for FEMA Section 404 funding, see Response to SESA-PR C: Questions for Sargent & Lundy no. 3.</p>
5.	<p>PREPA is proposing to acquire new gas-fired generation at Palo Seco. Why doesn't PREPA propose to acquire solar + storage equipment for rooftop solar through a transparent RFP process?</p>	<p>This question seems to suggest that solar + storage resources deployed on rooftops would address the same resource need as would the addition of new gas-fired generation at Palo Seco (<i>i.e.</i>, close to San Juan, the major load center in Puerto Rico). This suggestion is questionable for a number of reasons.</p> <p>First, the need for additional flexible generating capacity in the neighborhood of 300-400 MW close to the San Juan load center has been established by a number of analyses, including an independent analysis performed by the U.S. Department of Energy. As noted in the 10-Year Plan, such capacity would provide a dependable source of generation for the metropolitan San Juan area in the event of another catastrophic event that curtails transmission from existing generation resources and, with the anticipated influx of inverter-based (<i>e.g.</i>, solar) power generation systems, this plant will provide reliable generation that can be dispatched at any time and contribute inertia, short-circuit strength, and other services that will be required in the Grid System when more renewable generation facilities are incorporated. 10-Year Plan (Dec. 2020) Table 3.3 at 25-26. Rooftop solar plus storage installations are unlikely to achieve in the aggregate capacity of 300-400 MW for many years, would be limited in the number of hours each day they can provide dependable capacity and could not provide the system resiliency benefits a large, flexible and fully dispatchable turbine generating facility can provide. Thus, a new gas-fired generating facility located at Palo Seco or elsewhere</p>

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		<p>proximate to the San Juan load center and rooftop solar plus storage resources are not interchangeable, as the question seems to assume.</p> <p>Second, FEMA is unlikely to approve a proposal by PREPA to use FEMA Section 406/428 or 404 funding to develop renewable energy projects to be owned by private (investor-owned) parties (rather than by PREPA, which unlike a private entity is an "eligible applicant," see 42 U.S.C. § 5189f (b)). While it is theoretically possible, with FEMA approval, to arrange for the transfer of FEMA funding or projects constructed with funding provided under the Section 428 fixed estimate, the transferee must be a government or non-profit entity that is an "eligible applicant" under 44 C.F.R. § 206.222. An eligible applicant can contract with for-profit entities to construct a facility approved for funding under Section 406/428 or 404, the legal responsibility for the facility (generally established by ownership) must remain with the eligible applicant, in this case PREPA. This is not the model assumed in current Puerto Rico energy public policy and in the Integrated Resource Plan and Modified Action Plan which the Energy Bureau has approved.</p> <p>Third, there are other constraints on the acquisition of solar + storage equipment for rooftop solar installations. These constraints, including the requirement that a recipient of FEMA funds be an "eligible applicant," are generally addressed in other responses appearing above. Please see, for example, Responses to Questions 3, 4 and 5 to Local Environmental Organizations.</p>
6.	How will onsite solar + storage be made accessible to low and middle income residents and business in Puerto Rico who cannot finance or lease these systems?	Under the procurement model reflected in the Puerto Rico laws cited above and in the approved IRP, prospective developers of solar + storage resources will be given the opportunity to develop offerings that could include the financing and installation of solar + storage equipment and the aggregation of that equipment as distributed resources or VPPs. Such developers can be expected to propose mechanisms through which electricity consumers, including low and

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		middle income residents and businesses, will be able to participate as solar + storage resource hosts. The Tranche 1 RFP PREPA is releasing affirmatively invites such proposals.
7.	Local Environmental Organizations – 7: PREB’s January 7, 2021 Resolution and Order, p. 5, stated that “The conventional process of conducting, in sequence, feasibility, impact, and facilities studies is not the only path PREPA can consider for accelerating the process of assessing technical interconnection issues while simultaneously meeting requirements for Puerto Rico’s needs for new renewable energy resources.” What alternate paths has PREPA considered for accelerating this process?	PREPA and its advisors have been diligently working to make the process of addressing technical interconnection issues as efficient as possible. First, they have performed studies intended to identify the impact of high renewable penetration into PREPA’s power grid, and to identify potential system upgrades and operational conditions that will be required to integrate the renewable resources. Second, the RFP process contemplates the completion for selected resources of a Feasibility Study, System Impact Study and Facility Study. However, after the Feasibility Study, which includes preliminary studies addressing individual potential projects, the selection process will be accelerated and the System Impact Study and Facility Study are to be conducted in parallel. This way, PREPA intends to make the overall process of selection more efficient in favor of the development of the projects. This path is not typical in large power grids with multiple renewable projects being evaluated in parallel.
8.	For each of the following documents filed with PREPA’s December 22, 2020 Motion for Reconsideration, please state whether (and when) PREPA will provide the public with full access to the document: <ul style="list-style-type: none"> • RFP Draft Template • PPOA Draft Template • ESSA Draft Template • Joint Regulations 8815 • Procurement Plan Appendix B • Renewable Energy RFP 	PREPA will make available (i) an unredacted version of the RFP to Proponents upon their completion of the registration requirements for the RFP and the submission to PREPA of a signed version of the NDA, and (ii) a version of the RFP to the public on the Energy Bureau and PREPA websites, with a limited amount of confidential information redacted.

#	QUESTION	ANSWER
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	<ul style="list-style-type: none"> • Minimum Technical Requirements • Proposal Data Forms • Appendix I: Interconnection, Solar, Wind • Appendix J: Preferred Locations of Energy Resources • Appendix F: Form of energy Storage Services Agreement • Appendix E: Solar PPOA • Renewable Integration Study of Puerto Rico • Utility Scale Preferred Locations • Utility Scale RE and BESS Preferential Locations Maps 	