

GOBIERNO DE PUERTO RICO
JUNTA REGLAMENTADORA DE SERVICIO PÚBLICO
NEGOCIADO DE ENERGÍA DE PUERTO RICO

NEPR

Received:

Apr 28, 2023

8:26 PM

IN RE: ENMIENDAS A CONTRATO DE
COMPRAVENTA DE ENERGÍA:
PROYECTO NO-OPERACIONAL
(XZERTA-TEC SOLAR I, LLC)

CASO NÚM.: NEPR-AP-2021-0002

ASUNTO: Moción para Presentar Informe
de Progreso Mensual Correspondiente a
Marzo 2023

MOCIÓN PARA PRESENTAR INFORME DE PROGRESO
MENSUAL CORRESPONDIENTE A MARZO 2023

COMPARECE la Autoridad de Energía Eléctrica de Puerto Rico (la “Autoridad”) a través de la representación legal que suscribe y muy respetuosamente expone y solicita:

1. El 11 de mayo de 2021, el Negociado de Energía de la Junta Reglamentadora de Servicio Público (el “Negociado” o “Negociado de Energía”) notificó *Resolución Final y Orden* (la “Resolución Final”) mediante la cual aprobó, sujeto a algunas condiciones, la *Petición de Aprobación de Enmienda a Contrato de Compraventa de Energía Renovable con Xzerta-Tec Solar I, LLC* radicada por la Autoridad el 17 de marzo de 2021 para que el Negociado le impartiera su aprobación al Acuerdo Enmendado¹. La Resolución Final ordena a que, entre otras cosas, la Autoridad y Xzerta-Tec Solar I, LLC (“Xzerta”) presenten ante el Negociado de Energía informes mensuales de progreso sobre el estatus del proyecto (el “Informe de Progreso Mensual”).

2. El 9 de febrero de 2022, el Negociado emitió una *Resolución y Orden* mediante la cual, entre otras cosas, ordenó que la Autoridad y Xzerta debían presentar cada Informe de Progreso Mensual firmado por oficiales de cada entidad e informar la fecha de su preparación.

¹ *Amended and Restated Renewable Power Purchase and Operating Agreement between the Puerto Rico Electric Power Authority and Xzerta Tec Solar LLC* con fecha del 4 de junio de 2021 (2013-P00042E).

3. El 10 de noviembre de 2022, el Negociado notificó la Resolución y Orden con el título *Moción para presentar Informe de Progreso Mensual; Solicitud de Acumulación* mediante la cual incluyó a LUMA Energy ServCo, LLC y LUMA Energy, LLC (“LUMA”) como parte en el caso de epígrafe y le ordenó designar un representante que comparezca y participe de la certificación de los informes.

4. En cumplimiento con la Resolución Final y las órdenes del 9 de febrero y 10 de noviembre de 2022, la Autoridad presenta:

- El Informe de Progreso Mensual correspondiente a marzo 2023 preparado por Xzerta y revisado por la Autoridad (Anejo A) y
- la Declaración de LUMA en relación con el Informe de Progreso Mensual de marzo 2023 (Anejo B).

POR TODO LO CUAL, la Autoridad solicita respetuosamente al Negociado de Energía que tome conocimiento de lo aquí informado y acepte el Informe Mensual de febrero 2023.

RESPETUOSAMENTE SOMETIDO.

En San Juan, Puerto Rico, este 28 de abril de 2023.

/f Joannely Marrero Cruz
Joannely Marrero Cruz
jmarrero@diazvaz.law
TSPR 20014

DÍAZ & VÁZQUEZ LAW FIRM, P.S.C.
290 Jesús T. Piñero Ave.
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San Juan, PR 00918
Tel. (787) 395-7133
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CERTIFICADO DE NOTIFICACIÓN

Certifico que este escrito ha sido presentado a la Secretaria del Negociado de Energía a través del sistema electrónico de radicación <https://radicacion.energia.pr.gov/> y, además, copia del mismo ha sido notificado a LUMA Energy ServCo, LLC y LUMA Energy, LLC por conducto de la Licenciada Laura T. Rozas Laura.rozas@us.dlapiper.com.

En San Juan, Puerto Rico, hoy 28 de abril de 2023.

f/ Joannely Marrero Cruz
Joannely Marrero Cruz

Anejo A



April 5, 2023

Mr. Josué Colón
 Executive Director
 Puerto Rico Electric Power Authority

RE: Xzerta-Tec Solar I, LLC March Progress Report

Dear Executive Director:

Herewith, we are providing our monthly progress and status report including project activities required for the project completion. In the upcoming months, our team will continue sustaining meetings with both PREPA and LUMA to refine the engineering design and the facility's interconnection to the grid. The following table will be used to identify the project activities and any other issues with their respective status and progression for the proper implementation of this project.

#	Activity	Description	Status	Comments
1	Design			
	A. Power Design - Drawings	<p>After the meeting of March 1, 2023, Xzerta requested a change of design and a field visit to all parties involved. Xzerta stated that the proposed underground installation of the 115KV transmission only within the premises of the Hatillo Substation is not a feasible solution. Documentation was later presented to demonstrate the issues around the proposed approach and further provided an aerial approach in a conceptual design to all parties for approval. The item is under evaluation of S&L, LUMA and PREPA.</p> <p>Xzerta is waiting to have a separate meeting with PREPA to discuss any commercial issues related to LUMA's proposed estimates, POI design and the changes made by LUMA to re-defined the new POI and what will</p>	The facility and interconnection study completed, and the preliminary design is in compliance with MTApproval of the proposed design changes is still pending	Xzerta is waiting for the approval of the proposed design changes and for the coordination of the requested meeting for the commercial aspect.

Disclosure: This report is provided for informational purposes only. By accepting this information, the recipient agrees that it will, and it will cause its employees, agents, and representatives, to treat the information as such. Any reference made herein to terms or conditions should be subject to the language of the power purchase and operation agreement. The Information supersedes all information contained in any prior report or presentation for this project and is subject to change.

		become the PIF (PREPA Interconnection Facilities)		
	B. Energy Yield Assessment and Relay Study	<p>Relay Study was submitted on Sept 21, 2022, and the Energy Yield Assessment was submitted for approval on Sept 30th, 2022.</p> <p>After the completion of the interconnection and facility study, Luma submitted on March 13, 2023 for the first-time comments of the submitted Energy Yield report of Sept 30th, 2022. Xzerta updated the report accordingly to the request of providing additional data. Rev 2 was submitted on March 24, 2023.</p> <p>No comments have been provided regarding the relay study as of today.</p>	Open	<p>Relay Study seems to be approved.</p> <p>2nd revision of the Energy Yield is under revision by LUMA.</p>
	C. Products	<p>Proposed products and Models for the interconnection have been submitted to LUMA for approval.</p> <p>Documentation for the inverters, batteries, Transformer, Protective relays, GCBs, BESS and MV switchgear were transmitted for approval, but LUMA stated that they will not approve any Products related to the solar farm or facility but only the interconnection.</p> <p>The interconnection study and facility study were completed and both LUMA and S&L stated that Xzerta preliminary design is in compliance with the MTRs. Based on the outcome of the interconnection study, Xzerta understand that all suggested products have been approved.</p>	in compliance with the MTRs.	<p>At this point and based on the conclusion of S&L and LUMA's interconnection and facility reports, XZERTA is in the understanding that products have been approved.</p> <p>Nevertheless, Xzerta is waiting for further clarification and resolutions related to commercial and contractual issues before proceeding with the final design or ordering any equipment due to the high risk of not having proper approval of products. Equipment manufacturing lead times can affect proposed schedule</p>
	D. SCADA list	Our team is in receipt of current SCADA list sample shared by LUMA. Based on this sample, our team will develop the preliminary SCADA Point list and will add all available alarms and events based on the final	In progress	Under development

		design. The list is pending on the completion of LUMA's analysis and study of our design to determine if additional protections, alarms or other necessary points are required to be included in our design.		
	E. Other Design	<p>Preliminary design for the transmission lines was submitted on 11/23/2022.</p> <p>Current proposed route was approved and LUMAs provided a 2nd draft of a conditional permit. Xzerta provided comments and proposed wording related to this letter as the terms and conditions required further modifications.</p> <p>Interconnection study proposed underground installation of the 115KV is not feasible and is not in compliance with PREPA's "Technical Communications of 2012" where partial underground installation for a 115 KV are not permitted. A proposed change of design was submitted by Xzerta on March 27, 2023. The item is under discussion waiting for approval</p>	Open	Route is In compliance but there is a major issue with proposed approach for the final interconnection of the 115KV transmission line. New proposed conceptual design is waiting for approval.
	F. Dynamic Study	S&L confirmed that the PSSE and PSCAD or Dynamic Studies reports are in compliance with the MTR's	In compliance MTR's	Interconnection and facility studies were release to Xzerta on Feb 21, 2023 and it was confirmed that meets the MTR's. Further clarifications on proposed changes are required since those are commercial issues.
	G. Winds Conditions requirement	LUMA/PREPA winds conditions requirement of 160 MPH has become an issue. Several vendors have responded that they will be unable to meet this requirement. Currently, products meet 140 MPH. ASCE allows the 140 MPH criteria on the location that the farm will be built. It was requested an exemption and LUMA responded that the requirement is only applicable to equipment that will handled or owned by PREPA or them.	Closed	LUMA stated that this particular requirement is not applicable, and they will not provide any technical input of products used outside of the interconnection. GCB which meets 140 Mph has been approved. 140 MPH meets ASCE requirements

		Furthermore, LUMA will not provide any technical inputs to any equipment or products that are not within the interconnection.		
	H. Transmission line design and Easement Usage / Permit	<p>It was requested the usage of a PREPA ROW or Easement adjacent to the lands of the project to minimize the environmental impacts and shorten the path to the Hatillo POI substation via an RFI. LUMA responded that it will be required to be addressed through their department of Land management and development instead. All documentation has been submitted to the LUMA's Land Department for certification, and endorsement. LUMA responded in a 2nd letter that it will require more information of the transmission line design in order to approve the usage.</p> <p>Preliminary Transmission line design establishing the route as per appendix b of the PPOA was released on 11/23/2022 and another letter to requesting the use of the easement was sent to LUMA's Land Dept on the same date.</p> <p>LUMA's provided a draft of the conditional permit and Xzerta responded with our comments regarding many of the terms established by LUMA. The current terms of usage have broad wording that unreasonable extend Xzerta's liabilities.</p>	Closed via RFI 015 but after receiving the 2 nd draft letter for the conditional permit from the Land dept of LUMA, this item is considered open	<p>Preliminary Transmission line design defining the route has been released on 11/23/2022 to LUMA's department of Land and permits. On 01/23/2023, LUMA responded via RFI 015 that the permit was approved with the condition of providing steel monopoles with the configuration of dual lines for future installations.</p> <p>Additional terms and conditions presented by LUMA under their draft letter for the conditional permit required further modifications as requested by Xzerta on the 2nd draft letter. Comments were provided back to LUMA. Item has not been resolved as of today.</p>
2	Commercial			
	A. Certifications	filed with the Puerto Rico Energy Bureau for Xzerta Tec's Electric Service Company Certification as required under Rule 8701	Completed	Approved
	B. Loans	Term Sheet was received	In Progress	<p>Modifications received. Discussions are undergoing awaiting new IRS rules regarding ITC's after latest amendments to the inflation reduction Act.</p> <p>As of December 15, 2022 an evaluation on the percentage</p>

				applicable to the project was being evaluated as location of the project and the use of made in USA equipment could increase the ITC's from 30% up to 50%.
	C. Leases	Executed the extensions on the leases of the properties that required such extensions. Xzerta continue to maintain land control over all the proposed parcels, plus some additional lots have been added and surveyed to guarantee the necessary space for the increased capacity.	Completed	
	D. Mars CPA Report	Commissioned a report from our accounting firm Mars CPA regarding the possible incentives available to the project under the Puerto Rico Incentives Code, to review the prior decree granted to the project by the Department of Economic Development and to establish the final structure regarding the tax equity of the project.	Completed	
	E. LUMA request for payment for interconnection Study	LUMA transmitted a request for a payment letter regarding the study and evaluation of the project interconnection. Total amount to be paid as per LUMA letter is \$341k. As agreed with PREPA, Sargent & Lundy will perform the interconnection study.	Resolved Completed	S&L has completed this item as of Feb 21, 2023, and both determined that the preliminary design is in compliance with all MTRs.
3	Contracting			
	A. Land Survey and Topographic Survey	Geomatic Solutions and Surveying, PSC	Completed	
	B. Plant Design	CSA Architects and Engineers, LLP	In progress	
	C. Archaeological Study	Fernando Alvarado	In progress	
	D. Environmental Site Assessment Phase I-A Phase I-B	Tycroes group	Completed Delivered	Phase B received and under review
	E. Habitat Study	Alejandro Cubiña	Completed	
	F. Foundation Design	Carlos Rivera, P.E.	Completed	

	G. Anchoring	RBI Solar, Solar Mounts and / or Schletter	In progress	
	H. Electrical Design	Miguel Ortiz, P.E. Lisaidyn Perez Enerzinx Ing Ronald Hopgood	Completed	
	I. SCADA Systems Design	Lisaidyn Perez	Completed	
	J. Modeling and Simulations	Enerzinx	Completed	S&L and LUMA stated that it is in compliance with all MTR's
	K. Relay Study	Enerzinx	Completed	Resubmitted to Luma incorporating comments on 10/28/2022. On Feb 21, 2023, S&L and LUMA's completed the Interconnection and Facility Studies determine that Preliminary design is in compliance with all MTRs. Xzerta considers this item closed and approved. Further adjustments may be required during installation.
	L. Transmission Lines	Xzerta has contracted an additional firm to perform the Sag and Tension Analysis and create the PLS-CADD files for this project.	Completed	
3	Construction			
	A. Permits	Completed the following: <ul style="list-style-type: none"> 1. Location 2. Environmental 3. Endorsements by <ul style="list-style-type: none"> - Highway and Transportation Authority - Puerto Rico Energy Bureau - Cultural Institute - Puerto Rico Telecommunications Bureau - Puerto Rico Aqueduct and Sewer Authority - Department of Agriculture Pending <ul style="list-style-type: none"> 1. NWP-14 2. NPDES General Permit 	In progress	Still waiting for LUMA / PREPA approval for usage of ROW/ Easement

		<p>3. Permits Management Office (OGPe) - Calculations for construction square footage were completed to finalize permit. Permits will be updated with the new data.</p> <p>4. PREPA ROW / Easement Permit of usage</p>		
	B. Land Acquisition		Completed	
	C. Contractors	<p>No major changes, waiting for final drawings with Luma comments to be completed.</p> <p>Preliminary Scope of work was distributed to potential EPC, waiting for their updates of the quotes</p>	In progress	General Contractor (GC), subcontractors and consultants' agreements are in process.
4	Procurement			
	A. Material List	The material list has been generated but many long lead times products are waiting for proper approval.	Waiting for approvals	Refer to Material List Annex 1 found below for further information. S&L and LUMA's interconnection and facility studies have determine that Xzerta proposed design is in compliance with the MTR's. It is Xzerta understanding that all products have been approved but still Xzerta is waiting for final acceptance of the Design
	B. Orders	Waiting for LUMA's or PREPA's approval of proposed products and approval of final design as required by PPOA	In progress	lead time of equipment could impact final implementation of project
5	Implementation			
	A. Installation	<p>Preliminary definition of scope of works have been created and shared with proponents.</p> <p>Contractors (BLDM, Aireko, Solar Mounts and Dynamic Solar) visited in December once again the premises in order to update their quotes, but final prices and contract are pending on the final approvals.</p>	In progress	Waiting for acceptance of proposed design changes and final design
	B. Testing	Master Plan to be generated after approval of the design and upon receiving PREPA's approved testing	Not started	LUMA submitted their test protocols. The master plan will be

	protocols. Master plan and test procedures will be generated in accordance with PREPA/LUMA approved testing protocols and operations.		based on this information and the final approval of design
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The following table shows the status of RFIs:

#	Number	Description	Status	Date Submitted	Comments
1	RFI-001	Transformer specs and interconnection requirements (Y-D, D-Y or D-D)	Closed	4/26/2022	1 item remained open but followed by RFI-002. Transformer should be YG to Delta on the side of interconnection of 115 KV with PREPA with an internal shift of 30
2	RFI-002	Transformer specs (Not responded under RFI-001)	Closed	5/23/2022	Specifications received. Issues with Wind Conditions requirement. It will be followed through RFI-006
3	RFI-003	SCADA Communication Protocol and Sample of Points	Closed	5/23/2022	Received List.
4	RFI-004	Amount of demand Energy of PR	Closed	5/23/2022	Calculated at 0.0003% or 0.001 %
5	RFI-005	Request of Permit to usage of PREPAs ROW	Closed	5/23/2022	RFI was closed but Item is still open. LUMA requested to submit request for usage of easement via another form since it is managed by their Dept of Land and Permits
6	RFI-006	Request for exemption to Wind Conditions requirements. Vendors unable to meet criteria of 160 MPH. Current design meets 120 to 140 MPH	Closed	6/2/2022	LUMA stated that the cited specification details the requirements for equipment to be owned, operated, and maintained by PREPA/LUMA. Knowing that this equipment will remain under the care, custody, and control of the proponent, LUMA will not provide technical input on alternate wind load criteria for transformer components, since it is not an evaluation factor to determine the Facility's capability to be interconnected to the grid. Current design meets ASCE req. Refer to PPOA sections 9.4(a) & (b).
7	RFI-007	Request for approval of GCB proposed product	Closed	6/2/2022	Hitachi GCB Breaker for 115 KV. It has been conditionally approved. LUMA requested to increase CC of GCB1 based on their current design, 145 KV @ 2000 A CC

8	RFI-008	Request for approval of MV Switchgear proposed product	Closed	6/30/2022	LUMA stated that the MV switchgear approval is not within responsibilities. This will remain under contractor decisions regarding the solar farm or facility design.
9	RFI-009	Request for approval of Protective Relays, Network Switch, Controller	Closed	2/21/2023	S&L and LUMA's completed the Interconnection and Facility Studies. Preliminary design is in compliance with MTRs. Xzerta considers this item closed and approved.
10	RFI-010	Request for approval of Dynamic Studies	Closed	2/21/2023	S&L and LUMA's completed the Interconnection and Facility Studies. Preliminary design is in compliance with MTRs. Xzerta considers this item approved.
11	RFI-011	Request for approval of 3P Main Step-Up Oil Transformer 34/115KV	Closed	7/11/2022	S&L and LUMA's completed the Interconnection and Facility Studies. Preliminary design is in compliance with MTRs. Xzerta considers this item closed and approved.
12	RFI-012	Request for Testing Protocols and operating procedures	Closed	8/1/2022	Delivered
13	RFI-013	Request for LUMA/ PREPA to confirm if the Seismic Design Category can remain in A instead D because there is no historical data that requires to consider inertial loads associated with earthquakes within the area	Closed	10/13/2022	LUMA will not evaluate the civil design aspects for the medium voltage switchgear, since this equip is located upstream from the Main Power Transformer, and thus lies beyond LUMA's evaluation responsibilities for privately-owned Renewables projects. It will comply with ASCE stds.
14	RFI-014	Request PLS-CADD files for Transmission line detailed design	Closed	12/6/2022	LUMA provided the requested information and files
15	RFI-015	Response to Letter for Request of Permit to usage of PREPAs ROW	Closed	1/24/2023	Xzerta submitted to LUMA's Lands & Permits team on Nov 23, 2022, a 2nd request for the usage of existing easement/right-of-way that was reserved for future work on previously existing 115kV transmission line 39100 spanning westbound from Hatillo TC to Mora TC, in Isabela. It has been approved with the condition of been prepared for dual lines. A draft letter of a conditional permit was released for Xzerta review but terms and conditions required to

					be modified as per Xzerta comments.
16	RFI-016	Request of Design Information for secondary circuit of 115KV transmission line	Closed	3/22/2023	LUMA provided the requested information and files

The following table shows the status of Transmittals:

#	Number	Description	Status	Date Submitted	Comments
1	XTA-TRA-0001	Relay Study and Updated Preliminary design	Closed	9/21/2022	Interconnection and facility study completed by S&L and LUMA on Feb 21, 2023. It determined that Xzerta proposed design is in compliance with all MTR's. Xzerta assumes that all preliminary design is approved and can proceed with the detail design
2	XTA-TRA-0002	Energy Yield Assessment	Closed	9/30/2022	Interconnection and facility study completed by S&L and LUMA on Feb 21, 2023. It determined that Xzerta proposed design is in compliance with all MTR's. Xzerta assumes that all preliminary design is approved and can proceed with the detail design
3	XTA-TRA-0003	Relay Study and Updated Preliminary design based on LUMA's Comments of 10/3/2022	Closed	10/28/2022	Interconnection and facility study completed by S&L and LUMA on Feb 21, 2023. It determined that Xzerta proposed design is in compliance with all MTR's. Xzerta assumes that all preliminary design is approved and can proceed with the detail design
4	XTA-TRA-0004	Xzerta Ltr 2nd Request of Permit Use of ROW and Rev 14 SLD Preliminary Design	Open	11/23/2022	LUMA's team released on 2/21/2023 a 2 nd draft letter for a conditional permit for usage of the ROW but Xzerta provided their comments to many of the terms. It is currently under evaluation by LUMA's

5	XTA-TRA-0005	RFI 016 Request of Design Information for secondary circuit of 115KV transmission line	Closed	3/22/2023	
6	XTA-TRA-0006	Energy Yield Assessment and comments of Conditioned Permit for use of the electrical lines' easement	Open	3/24/2023	

We continue committed to providing PREPA and the people of Puerto Rico clean and efficient energy and to assist in achieving the targets established in the Integrated Resources Plan (IRP) and the Public Policy aimed by the Government of Puerto Rico.

Sincerely,



Fernando Molini-Vizcarrondo

xc: francisco.santos@prepa.com
 mcadavid@kslaw.com
 kbolanos@diazvaz.law
 daniel.Hernandezm@lumapr.com

Attachments

Revised by PREPA
 Representative:

F.Santos
F.Santos (Apr 28, 2023 12:38 EDT)

Francisco Santos, Esq.

Manager Business Strategy
 and Operations, PREPA
 April 27, 2023

Equipment and Components – Materials Status List

Equipment	Company/Brand	Status	Comments
PV Modules	RFPs Submitted to vendors	Proposal Received from Talesun and Trina Solar.	Interconnection Study completed and compliance with MTRs
Inverters	Ingeteam	Refresh of Proposal Received from Ingeteam to proceed with PO	Interconnection Study completed and compliance with MTRs
Battery Equipment	Ingeteam	Refresh of Proposal Received from Ingeteam to proceed with PO	Interconnection Study completed and compliance with MTRs
Racks and Anchoring	Schletter/Solar Mounts	Provided latest preliminary design to prospects to have them Revised Proposal	Waiting for design approval
Main Switchgear	Eaton	Received proposal from Eaton and Submitted for approval	LUMA stated that Main Switchgear will remain under the contractor prerogative. No approval necessary
GIS/GCB	Hitachi	Submitted for approval	LUMA approved it with comments. Changes incorporated to proceed with POs
Transformer 34.5/115K	Hitachi	Submitted for approval	Interconnection Study completed and compliance with MTRs
Meters	Eaton	Waiting to receive meters information from Eaton to submit product for approval	Interconnection Study completed and compliance with MTRs
Protective Relays	SEL	Submitted for approval	Interconnection Study completed and compliance with MTRs
Foundations	Pending Completion of design		
Posts & Towers	Generic	Preliminary Design submitted	
Cables & Miscellaneous	Caribe Sales	Revised proposal received. Final proposal will be delivered upon completing design	

Anejo B



**STATEMENT REGARDING XZERTA TEC SOLAR I, LLC MONTHLY STATUS PROGRESS REPORT FOR
MARCH 2023**

For purposes of compliance with PREB's Resolution and Order of November 10, 2022, in Case NEPR-AP-2021-0002 (*Enmiendas a Contrato de Compraventa de Energía: Proyecto No-Operacional (Xzerta-Tec Solar I, LLC)*), LUMA Energy ServCo, LLC ("LUMA") hereby informs that LUMA:

- has reviewed the referenced monthly progress report prepared by Xzerta Tec Solar I, LLC dated April 05, 2023, and submitted to the Puerto Rico Electric Power Authority (the "Xzerta Report"), which report is to be filed with the Puerto Rico Energy Bureau ("PREB") as per PREB's Final Determination and Order of May 11, 2021 in the same case; and
- does not have reason to disagree with the information in the Xzerta Report, **except as otherwise indicated in or subject to**, LUMA's comments included in the attached document which replicates the table of activities and status thereof in the Xzerta Report and includes a column added by LUMA to include LUMA's comments for purposes of clarifying, updating or correcting the information in the report.

LUMA Representative:

Franz Lizardi

Name: Franz Lizardi, PE

Title: Project Manager, Capital Programs, Utility-Scale Renewable

Date: April 28, 2023



LUMA Comments to XZERTA Monthly Report

March 2023

#	Activity	Description	Status	Comments	LUMA Comments
1	Design				
	A. Power Design - Drawings	<p>After the meeting of March 1, 2023, Xzerta requested a change of design and a field visit to all parties involved. Xzerta stated that the proposed underground installation of the 115KV transmission only within the premises of the Hatillo Substation is not a feasible solution. Documentation was later presented to demonstrate the issues around the proposed approach and further provided an aerial approach in a conceptual design to all parties for approval. The item is under evaluation of S&L, LUMA and PREPA.</p> <p>Xzerta is waiting to have a separate meeting with PREPA to discuss any commercial issues related to LUMA's proposed estimates, POI design and the changes made by LUMA to re-defined the new POI and what will become the PIF (PREPA Interconnection Facilities)</p>	The facility and interconnection study completed, and the preliminary design is in compliance with MTApproval of the proposed design changes is still pending	Xzerta is waiting for the approval of the proposed design changes and for the coordination of the requested meeting for the commercial aspect.	Xzerta has not issued proper drawings with a conceptual design.
	B. Energy Yield Assessment and Relay Study	<p>Relay Study was submitted on Sept 21, 2022, and the Energy Yield Assessment was submitted for approval on Sept 30th, 2022.</p> <p>After the completion of the interconnection and facility study, Luma submitted on March 13, 2023 for the first-time</p>	Open	Relay Study seems to be approved. 2nd revision of the Energy Yield is under revision by LUMA.	Energy Yield Assessment is currently under review.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		<p>comments of the submitted Energy Yield report of Sept 30th, 2022. Xzerta updated the report accordingly to the request of providing additional data. Rev 2 was submitted on March 24, 2023. No comments have been provided regarding the relay study as of today.</p>			
	C. Products	<p>Proposed products and Models for the interconnection have been submitted to LUMA for approval. Documentation for the inverters, batteries, Transformer, Protective relays, GCBs, BESS and MV switchgear were transmitted for approval, but LUMA stated that they will not approve any Products related to the solar farm or facility but only the interconnection. The interconnection study and facility study were completed and both LUMA and S&L stated that Xzerta preliminary design is in compliance with the MTRs. Based on the outcome of the interconnection study, Xzerta understand that all suggested products have been approved.</p>	in compliance with the MTRs.	<p>At this point and based on the conclusion of S&L and LUMA's interconnection and facility reports, XZERTA is in the understanding that products have been approved. Nevertheless, Xzerta is waiting for further clarification and resolutions related to commercial and contractual issues before proceeding with the final design or ordering any equipment due to the high risk of not having proper approval of products. Equipment manufacturing lead times can affect proposed schedule</p>	<p>No change from last month: With the Facility and Interconnection Studies completed, Xzerta has all the necessary data to proceed with Final Design and proceed with detailed product selection. However, compliance with MTRs is not a blanket approval of all products. Xzerta shall submit for approval the T-Line specification, GCB and transformer.</p>
	D. SCADA list	<p>Our team is in receipt of current SCADA list sample shared by LUMA. Based on this sample, our team will develop the preliminary SCADA Point list and will add</p>	In progress	Under development	

LUMA Comments

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		all available alarms and events based on the final design. The list is pending on the completion of LUMA's analysis and study of our design to determine if additional protections, alarms or other necessary points are required to be included in our design.			
	E. Other Design	<p>Preliminary design for the transmission lines was submitted on 11/23/2022.</p> <p>Current proposed route was approved and LUMAs provided a 2nd draft of a conditional permit. Xzerta provided comments and proposed wording related to this letter as the terms and conditions required further modifications. Interconnection study proposed underground installation of the 115KV is not feasible and is not in compliance with PREPA's "Technical Communications of 2012" where partial underground installation for a 115 KV are not permitted. A proposed change of design was submitted by Xzerta on March 27, 2023. The item is under discussion waiting for approval</p>	Open	<p>Route is In compliance but there is a major issue with proposed approach for the final interconnection of the 115KV transmission line. New proposed conceptual design is waiting for approval.</p>	<p>Luma still waiting for Xzerta's official documentation through the appropriate transmittal channels.</p>
	F. Dynamic Study	<p>S&L confirmed that the PSSE and PSCAD or Dynamic Studies reports are in compliance with the MTR's</p>	In compliance MTR's	<p>Interconnection and facility studies were release to Xzerta in Feb 21, 2023 and it was confirmed that meets the MTR's. Further</p>	<p>No action is pending from LUMA.</p>

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
				clarifications on proposed changes are required since those are commercial issues	
	G. Winds Conditions requirement	LUMA/PREPA winds conditions requirement of 160 MPH has become an issue. Several vendors have responded that they will be unable to meet this requirement. Currently, products meet 140 MPH. ASCE allows the 140 MPH criteria on the location that the farm will be built. It was requested an exemption and LUMA responded that the requirement is only applicable to equipment that will handled or owned by PREPA or them. Furthermore, LUMA will not provide any technical inputs to any equipment or products that are not within the interconnection	Closed	LUMA stated that this particular requirement is not applicable, and they will not provide any technical input of products used outside of the interconnection. GCB which meets 140 Mph has been approved. 140 MPH meets ASCE requirements.	
	H. Transmission line design and Easement Usage/ Permit	It was requested the usage of a PREPA ROW or Easement adjacent to the lands of the project to minimize the environmental impacts and shorten the path to the Hatillo POI substation via an RFI. LUMA responded that it will be required to be addressed through their department of Land management and	Closed via RFI 015 but after receiving the draft letter for the conditional permit from the Land dept of LUMA, this item is considered open.	Preliminary Transmission line design defining the route has been released on 11/23/2022 to LUMA's department of Land and permits. On 01/23/2023, LUMA responded via RFI 015 that the permit was approved with the condition of	Negotiations in progress. The Conditioned Permit draft document is under review by both LUMA and Xzerta.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		<p>development instead. All documentation has been submitted to the LUMA's Land Department for certification, and endorsement. LUMA responded in a 2nd letter that it will require more information of the transmission line design in order to approve the usage. Preliminary Transmission line design establishing the route as per appendix b of the PPOA was released on 11/23/2022 and another letter to requesting the use of the easement was sent to LUMA's Land Dept on the same date. LUMA's provided a draft of the conditional permit and Xzerta responded with our comments regarding many of the terms established by LUMA. The current terms of usage have broad wording that unreasonable extend Xzerta's liabilities.</p>		<p>providing steel monopoles with the configuration of dual lines for future installations. Additional terms and conditions presented by LUMA under their draft letter for the conditional permit required further modifications as requested by Xzerta on the 2nd draft letter. Comments were provided back to LUMA. Item has not been resolved as of today.</p>	
2	Commercial				
	A. Certifications	<p>filed with the Puerto Rico Energy Bureau for Xzerta Tec's Electric Service Company Certification as</p>	Completed	Approved	

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		required under Rule 8701			
	B. Loans	Term Sheet was received	In Progress	Modifications received. Discussions are undergoing awaiting new IRS rules regarding ITC's after latest amendments to The inflation reduction Act. As of December 15, 2022 an evaluation on the percentage applicable to the project was being evaluated as location of the project and the use of made in USA equipment could increase the ITC's from 30% up to 50%.	
	C. Leases	Executed the extensions on the leases of the properties that required such extensions. Xzerta continue to maintain land control over all the proposed parcels, plus some additional lots have been added and surveyed to guarantee the	Completed		

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		necessary space for the increased capacity.			
	D. Mars CPA Report	Commissioned a report from our accounting firm Mars CPA regarding the possible incentives available to the project under the Puerto Rico Incentives Code, to review the prior decree granted to the project by the Department of Economic Development and to establish the final structure regarding the tax equity of the project.	Completed		
	E. LUMA request for payment for interconnection Study	LUMA transmitted a request for payment letter regarding of the study and evaluation of the project interconnection. Total amount to be paid as per LUMA letter is \$341k. As agreed with PREPA, Sargent & Lundy will perform the interconnection study.	Resolved Completed	S&L has completed this item as of Feb 21, 2023, and both determined that the preliminary design is in compliance with all MTRs.	
3	Contracting				
	A. Land Survey and Topographic Survey	Geomatic Solutions and Surveying, PSC	Completed		
	B. Plant Design	CSA Architects and Engineers, LLP	In progress		
	C. Archaeological Study	Fernando Alvarado	In progress		

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
	D.Environmental Site Assessment Phase I-A Phase I-B	Tycroes group	Completed Delivered	Phase B received and under review	
	E.Habitat Study	Alejandro Cubiña	Completed		
	F. Foundation Design	Carlos Rivera, P.E.	Completed		
	G. Anchoring	RBI Solar, Solar Mounts and/or Schletter	In progress		
	H. Electrical Design	Miguel Ortiz, P.E. Lisaidyn Perez Enerzinx Ing Ronald Hopgood	Completed		
	I. SCADA Systems Design	Lisaidyn Perez	Completed		
	J. Modeling and Simulations	Enerzinx	Completed	S&L and LUMA stated that it is in compliance with all MTR's.	
	K. Relay Study	Enerzinx	Completed	Resubmitted to Luma incorporating comments on 10/28/2022. On Feb 21, 2023, S&L and LUMA's completed the Interconnection and Facility Studies determine that Preliminary design is in compliance with all MTRs. Xzerta considers this item closed and	Awaiting Final Design.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
				approved. Further adjustments may be required during installation.	
	L. Transmission Lines	Xzerta has contracted an additional firm to perform the Sag and Tension Analysis and create the PLS-CADD files for this project	Completed		
3	Construction				
	A. Permits	<p>Completed the following:</p> <ol style="list-style-type: none"> 1. Location 2. Environmental 3. Endorsements by <ul style="list-style-type: none"> - Highway and Transportation Authority - Puerto Rico Energy Bureau - Cultural Institute - Puerto Rico Telecommunications Bureau - Puerto Rico Aqueduct and Sewer Authority - Department of Agriculture <p>Pending 1. NWP-14</p>	In progress	Still waiting for LUMA/PREP A approval for usage of ROW/ Easement	See item 1.H – Transmission Line design and Easement Usage/Permit.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		2. NPDES General Permit 3. Permits Management Office (OGPe) - Calculations for construction square footage were completed to finalize permit. Permits will be updated with the new data. 4. PREPA ROW / Easement Permit of usage			
	B. Land Acquisition		Completed		
	C. Contractors	No major changes, waiting for final drawings with Luma comments to be completed. Preliminary Scope of work was distributed to potential EPC, waiting for their updates of the quotes	In progress	General Contractor (EPC), subcontractors and consultants' agreements are in process.	
4	Procurement				
	A. Material List	The material list has been generated but many long lead times products are waiting for proper approval.	Waiting for approvals	Refer to Material List Annex 1 found below for further information. S&L and LUMA's interconnection and facility studies have determined that Xzerta proposed design is in compliance with the	As noted previously, compliance with MTRs is not a blanket approval of all products. The Final Design has not yet been submitted.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
				MTR's. It is Xzerta understanding that all products have been approved but still Xzerta is waiting for final acceptance of the Design.	
	B. Orders	Waiting for LUMA's or PREPA's approval of proposed products and approval of final design as required by PPOA	In progress	Lead time of equipment could impact final implementation of project	<p>The Final Design has not yet been submitted.</p> <p>LUMA's approval of the orders of materials on the developer's facilities up to the high side of the step-up transformer are not required. It is the developer's responsibility to comply with the MTRs and applicable codes and regulations.</p>
5	Implementation				
	A. Installation	Preliminary definition of scope of works have been created and shared with proponents. Contractors (BLDM and Aireko) visited in December once again the premises in order to	In progress	Waiting for acceptance of proposed design changes and final design	The Final Design has not yet been submitted.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		update their quotes, but final prices and contract are pending on the final approvals.			
	B. Testing	Master Plan to be generated after approval of the design and upon receiving PREPA's approved testing protocols. Master plan and test procedures will be generated in accordance with PREPA/LUMA approved testing protocols and operations.	Not started	LUMA submitted their test protocols. The master plan will be based on this information and the final approval of design.	The Final Design has not yet been submitted.

The following table shows the status of RFIs:

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
1	RFI-001	Transformer specs and interconnection requirements (Y-D, D-Y or D-D)	Closed	4/26/2022	1 item remained open but followed by RFI-002. Transformer should be YG to Delta on the side of interconnection of 115 KV with PREPA with an internal shift of 30	No open items. Refer to RFI 001 response.
2	RFI-002	Transformer specs (Not responded under RFI-001)	Closed	5/23/2022	Specifications received. Issues with Wind Conditions requirement. It will be followed through RFI-006	Response to RFI was delivered by LUMA and wind conditions question was clarified.
3	RFI-003	SCADA Communication Protocol and Sample of Points	Closed	5/23/2022	Received List. TBR	

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
4	RFI-004	Amount of demand Energy of PR	Closed	5/23/2022	Calculated at 0.0003% or 0.001 %	
5	RFI-005	Request of Permit to usage of PREPAs ROW	Closed	5/23/2022	RFI was closed but Item is still open. LUMA requested to submit request for usage of easement via another form since it is managed by their Dept of Land and Permits	Negotiations in progress. The Conditioned Permit draft document is under review by both LUMA and Xzerta
6	RFI-006	Request for exemption to Wind Conditions requirements. Vendors unable to meet criteria of 160 MPH. Current design meets 120 to 140 MPH	Closed	6/2/2022	LUMA stated that the cited specification details the requirements for equipment to be owned, operated, and maintained by PREPA/LUMA. Knowing that this equipment will remain under the care, custody, and control of the proponent, LUMA will not provide technical input on alternate wind load criteria for transformer components, since it is not an evaluation factor to determine the Facility's capability to be interconnected to the grid. Current design meets ASCE req.Refer to PPOA sections 9.4(a) and (b).	

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
7	RFI-007	Request for approval of GCB proposed product	Closed	6/2/2022	Hitachi GCB Breaker for 115 KV. It has been conditionally approved. LUMA requested to increase CC of GCB1 based on their current design, 145 KV @ 2000 A CC	To be reviewed upon submittal of Final Design.
8	RFI-008	Request for approval of MV Switchgear proposed product	Closed	6/2/2022	LUMA stated that the MV switchgear approval is not within responsibilities. This will remain under contractor decisions regarding the solar farm or facility design.	
9	RFI-009	Request for approval of Protective Relays, Network Switch, Controller	Closed	2/21/2023	S&L and LUMA's completed the Interconnection and Facility Studies. Preliminary design is in compliance with MTRs. Xzerta considers this item closed and approved.	New comments on the protection scheme were issued on 03/08/2023
10	RFI-0010	Request for approval of Dynamic Studies	Closed	2/21/2023	S&L and LUMA's completed the Interconnection and Facility Studies. Preliminary design is in compliance with MTRs. Xzerta considers this item approved.	
11	RFI-0011	Request for approval of 3P Main Step-Up Oil Transformer 34/115 KV	Closed	7/11/2022	S&L and LUMA's completed the Interconnection and Facility Studies. Preliminary design is in compliance with MTRs. Xzerta considers this	

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
					item closed and approved.	
12	RFI-0012	Request for Testing Protocols and operating procedures	Closed	8/1/2022	Delivered	
13	RFI-0013	Request for LUMA/PREPA to confirm if the Seismic Design Category can remain in A instead D because there is no historical data that requires to consider inertial loads associated with earthquakes within the area	Closed	10/13/2022	LUMA will not evaluate the civil design aspects for the medium voltage switchgear, since this equip is located upstream from the Main Power Transformer, and thus lies beyond LUMA's evaluation responsibilities for privately-owned Renewables projects. It will comply with ASCE stds.	Negotiations in progress. The Conditioned Permit draft document is under review by both LUMA and Xzerta.
14	RFI-014	Request PLS-CADD files for Transmission line detailed design	Closed	12/6/2022	LUMA provided the requested information and files	
15	RFI-015	Response to Letter for Request of Permit to usage of PREPAs ROW	Closed	1/24/2023	Xzerta submitted to LUMA's Lands & Permits team on Nov 23, 2022, a 2nd request for the usage of existing easement/right-of-way that was reserved for future work on previously existing 115kV transmission line 39100 spanning westbound from Hatillo TC to Mora TC, in Isabela. It has been approved with the condition of been prepared for dual lines. A draft letter of a conditional permit was released for	

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
					Xzerta review but terms and conditions required to be modified as per Xzerta comments.	
16	RFI-016	Request of Design Information for secondary circuit of 115KV transmission line	Closed	03/22/2023	LUMA provided the requested information and files	

The following table shows the /status of Transmittals:

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
1	XTA-TRA-0001	Relay Study and Updated Preliminary design	Closed	9/21/2022	Interconnection and facility study completed by S&L and LUMA on Feb 21, 2023. It determined that Xzerta proposed design is in compliance with all MTR's. Xzerta assumes that all preliminary design is approved and can proceed with the detail design	
2	XTA-TRA-0002	Energy Yield Assessment	Closed	9/30/2022	Interconnection and facility study completed by S&L and LUMA on Feb 21, 2023. It determined	The revised document is under review.

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
					that Xzerta proposed design is in compliance with all MTR's. Xzerta assumes that all preliminary design is approved and can proceed with the detail design	
3	XTA-TRA-0003	Relay Study and Updated Preliminary design based on LUMA's Comments of 10/3/2022	Closed	10/28/2022	Interconnection and facility study completed by S&L and LUMA on Feb 21, 2023. It determined that Xzerta proposed design is in compliance with all MTR's. Xzerta assumes that all preliminary design is approved and can proceed with the detail design	See comments in RFI 009.
4	XTA-TRA-0004	Xzerta Ltr 2nd Request of Permit Use of ROW and Rev 14 SLD Preliminary Design	Open	11/23/2022	LUMA's team released a draft letter for a conditional permit for usage of the ROW but Xzerta provided their comments to many of the terms. It is currently	Negotiations in progress. The Conditioned Permit draft document is under review by both LUMA and Xzerta.

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
					under evaluation by LUMA's	
5	XTA-TRA-0005	RFI 016 Request of Design Information for secondary circuit of 115KV transmission line	Closed	03/22/2023		
6	XTA-TRA-0006	Energy Yield Assessment and comments of Conditioned Permit for use of the electrical lines' easement	Open	03/24/2023		<p>Revised EYA is under review.</p> <p>Conditioned Permit negotiations are in progress.</p>