

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

NEPR

Received:

Jan 31, 2023

9:40 PM

IN RE: ENMIENDAS A CONTRATO DE
COMPRVENTA 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
Diciembre de 2022

**MOCIÓN PARA PRESENTAR INFORME DE PROGRESO
MENSUAL CORRESPONDIENTE A DICIEMBRE DE 2022**

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 diciembre 2022 preparado por Xzerta y revisado por la Autoridad (Anejo A) y
- la Declaración de LUMA en relación con el Informe de Progreso Mensual de diciembre 2022 (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 diciembre 2022.

RESPETUOSAMENTE SOMETIDO.

En San Juan, Puerto Rico, este 31 de enero 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
Fax. (787) 497-9664

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 31 de enero de 2023.

f/ Joannely Marrero Cruz
Joannely Marrero Cruz

Anejo A



VIA EMAIL: kfutch@KSLAW.com

January 5, 2023

Mr. Josué Colón
Executive Director
Puerto Rico Electric Power Authority

RE: Xzerta-Tec Solar I, LLC December 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>Xzerta provided the 13th revision of the drawings and the relay study on 10/28/2022, which included all changes as per Luma's comments. On 11/23/2022, a 14th revision was provided with the proposed route as conceptual design of the transmission line to request for a 3rd time the permits for usage of the PREPA's easement. This item is not required for the fulfillment of Article 4.1.</p> <p>As of 11/4/2022, Sargent & Lundy, as the CTE firm assigned by PREPA to perform the interconnection study and the facility study, proceeded with the evaluation of all design documents provided by Xzerta. Xzerta provided on 12/22/2022 a revised PSSE files as per the comments provided by S&L on 12/07/2022. This study is necessary for</p>	Submitted	<p>Design Documents Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.</p>

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.

		the final detail design and proper integration of the interconnection. Final design, which will include transmission lines design, conduits, racks, grounding and bonding, will be delivered upon receiving the final study and preliminary design of the Hatillo Substation modifications from S&L with PREPA/LUMA validation.		
	B. Energy Yield Assessment and Relay Study	Relay Study was submitted on Sept 21, 2022, and the Energy Yield Assessment was submitted for approval on Sept 30 th , 2022.	Waiting for approval	Design Documents Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.
	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 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. LUMA stated it will be handled as for information only. It is important to clarify that this distinction between the materials or equipment that will be utilized for the facility vs the step-up transformer to point of connection does not exist in the contract. As per article 4.2 and 9.4, the design including the facility and products will require to be approved by PREPA and/or their representative.</p> <p>LUMA have approved with comments the proposed gas circuit breaker from the manufacturer, Hitachi. LUMA responded to RFI 011-Request Step up Oil 3P Power Transformer that they did not have an exception to the proposed</p>	Waiting for completion of the interconnection study and facility study as per LUMA responses of Xzerta RFI's.	We are waiting for the approval of the protective relays. GCBs was approved with a note to increase the capacity of the GCB 1. Step Up 3P Main Transformer was not officially approved like other products pending for the results of the interconnection study. At this point, XZERTA has not issue the orders of equipment due to the high risk of not having proper approval of products. Equipment manufacturing lead times can affect proposed schedule

		products, but their response should not be taken as approval as it is pending on the completion of the interconnection study. RFI 009-Request for Approval of Protective relays is still open.		
	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 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.	In progress	Under development while waiting for S&L's interconnection study and facility study results
	E. Other Design	Preliminary design for the transmission lines was submitted on 11/23/2022.	In Progress	Waiting for S&L's interconnection study and facility study results
	F. Dynamic Study	Based on the preliminary design, Enerzinx has completed the dynamic study, and it was submitted for LUMA's review and approval back on July 2022. After a resolution of a commercial issue with LUMA, PREPA with Xzerta's approval assigned S&L. As of 11/04/2022, S&L is reviewing all design documents. Xzerta provided on 12/22/2022 a revised PSSE files as per the comments provided by S&L on 12/07/2022.	Submitted and waiting for S&L review	Design Documents Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.
	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	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

		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>	In Progress	<p>Preliminary Transmission line design defining the route has been released on 11/23/2022 and it is under evaluation by LUMA's department of Land and permits. Approval of usage of the easement is required for final design.</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 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%.</p>
	C. Leases	Executed the extensions on the leases of the properties that required	Completed	

		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.		
	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	<p>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.</p> <p>As agreed with PREPA, Sargent & Lundy will perform the interconnection study.</p>	Resolved Completed	<p>After latest meeting with both PREPA and LUMA, PREPA has engaged Sargent and Lundy to conduct the study.</p> <p>During the month of December as stated on other sections above Xzerta interacted with S&L to provide additional information or revisions.</p>
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	Completed	

		Energinx		
	I. SCADA Systems Design	Lisaidyn Perez	Completed	
	J. Modeling and Simulations	Energinx	Completed	Submitted on 07/2022 and a 2 nd revision on 12/22/22. Design Documents Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.
	K. Relay Study	Energinx	Completed	resubmitted to Luma incorporating comments on 10/28/2022. Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.
	L. Transmission Lines	Xzerta have contracted Eng. Ronald Hopgood as the local engineer of record in our team.	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 	In progress	Still waiting for LUMA / PREPA approval for usage of ROW/ Easement

		<ul style="list-style-type: none"> - Department of Agriculture Pending 1. NWP-14 2. NPDES General Permit 3. Permits Management Office (OGPe) - Calculations for construction square footage were completed to finalize permit. Permit will be updated with the new data. 4. PREPA ROW / Easement Permit of usage 		
	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. Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design. There is no distinction between the materials that will be utilized for the facility vs the step-up transformer to point of connection does not exist in the contract. As per article 9.4, the design including the facility will required to be approved by PREPA and/or their representative.
	B. Orders	Waiting for LUMA's or PREPA's approval of proposed products.	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 and Aireko) 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 S&L review of design documents and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.
	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 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. TBR
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	Open	7/11/2022	Equipment evaluations are pending completion of the Interconnection and Facility Studies performed by S&L.
10	RFI-010	Request for approval of Dynamic Studies	Open	7/11/2022	Approval pending completion of the Interconnection and Facility Studies performed by S&L.
11	RFI-011	Request for approval of 3P Main Step-Up Oil Transformer 34/115KV	Closed	7/11/2022	LUMA stated that is pending on interconnection study performed by S&L
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.
14	RFI-014	Request PLS-CADD files for Transmission line detailed design	Closed	12/6/2022	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	Open	9/21/2022	LUMA stated that is pending on interconnection study performed by S&L
2	XTA-TRA-0002	Energy Yield Assessment	Open	9/30/2022	LUMA stated that is pending on interconnection study performed by S&L
3	XTA-TRA-0003	Relay Study and Updated Preliminary design based on LUMA's Comments of 10/3/2022	Open	10/28/2022	LUMA stated that is pending on interconnection study performed by S&L
4	XTA-TRA-0004	Xzerta Ltr 2nd Request of Permit Use of ROW and Rev 14 SLD Preliminary Design	Open	11/23/2022	Received and under evaluation by the LUMA team

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 (Jan 31, 2023 13:00 AST)

Francisco Santos, Esq.
Manager Business Strategy
and Operations, PREPA
January 31, 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.	Waiting for design approval
Inverters	Ingeteam	Refresh of Proposal Received from Ingeteam to proceed with PO	Reviewing Contract Terms with Ingeteam
Battery Equipment	Ingeteam	Refresh of Proposal Received from Ingeteam to proceed with PO	Reviewing Contract Terms with Ingeteam but Waiting for design approval
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	Pending
Meters	Eaton	Waiting to receive meters information from Eaton to submit product for approval	
Protective Relays	SEL	Submitted for approval	Pending
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
December 2022**

For purposes of compliance with the Puerto Rico Energy Bureau's ("PREB") 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 January 5, 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:

A handwritten signature in black ink, appearing to read "Daniel Hernandez", is written over a horizontal line.

Name: Daniel Hernandez

Title: Director

Date: 01/31/2023



LUMA Comments to XZERTA Monthly Report

December 2022

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	LUMA Comments
1	Design				
	A. Power Design - Drawings	Xzerta provided the 13th revision of the drawings and the relay study on 10/28/2022, which included all changes as per Luma's comments. On 11/23/2022, a 14th revision was provided with the proposed route as conceptual design of the transmission line to request for a 3rd time the permits for usage of the PREPA's easement. This item is not required for the fulfillment of Article 4.1. As of 11/4/2022, Sargent & Lundy, as the CTE firm assigned by PREPA to perform the interconnection study and the facility study, proceeded with the evaluation of all design documents provided by Xzerta. Xzerta provided on 12/22/2022 a revised PSSE files as per the comments provided by S&L on 12/07/2022. This study is necessary for the final detail design and proper integration of the interconnection. Final design, which will include transmission lines design, conduits, racks, grounding and bonding, will be delivered upon receiving the final study and preliminary design of the Hatillo Substation modifications from S&L with PREPA/ LUMA validation.	Submitted	Design Documents Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.	No action pending from LUMA because the facility study and interconnection study have not been completed by S&L.
	B. Energy Yield Assessment and	Relay Study was submitted on Sept 21,	Waiting for approval	Design Documents	No action pending from LUMA

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
	Relay Study	2022, and the Energy Yield Assessment was submitted for approval on Sept 30 th , 2022.		Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.	because the facility study and interconnection study have not been completed by S&L.
	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 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. LUMA stated it will be handled as for information only. It is important to clarify that this distinction between the materials or equipment that will be utilized for the facility vs the stepup transformer to point of connection does not exist in the contract. As per article 4.2 and 9.4, the design including the facility and products will require to be approved by PREPA and/or their representative.</p> <p>LUMA have approved</p>	Waiting for completion of the interconnection study and facility study as per LUMA responses of Xzerta RFI's.	Waiting for the approval of the protective relays. GCBs was approved with a note to increase the capacity of the GCB 1. Step Up 3P Main Transformer was not officially approved like other products pending for the results of the interconnection study. At this point, XZERTA has not issue the orders of equipment due to the high risk of not having proper approval of products. Equipment manufacturing lead times can affect proposed schedule	Completion of the Interconnection studies by S&L is necessary for approvals of the protective relays and other equipment. S&L studies have not been issued yet.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		with comments the proposed gas circuit breaker from the manufacturer, Hitachi. LUMA responded to RFI 011- Request Step up Oil 3P Power Transformer that they did not have an exception to the proposed products, but their response should not be taken as approval as it is pending on the completion of the interconnection study. RFI 009 Request for Approval of Protective relays is still open.			
	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 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.	In progress	Under development while waiting for S&L's interconnection study and facility study results	Upon submission of the interconnection studies by S&L and the submission of Xzerta of the SCADA points, LUMA will be able to conduct the appropriate analysis. This action is awaiting the S&L study.
	E. Other Design	Preliminary design for the transmission lines was submitted on 11/23/2022.	In Progress	Waiting for S&L's interconnection study and facility study results	
	F. Dynamic Study	Based on the preliminary design, Enerzinx has completed the dynamic study, and it was submitted for LUMA's review and	Submitted and waiting for S&L review	Design Documents Under S&L review and pending completion of the interconnection study and facility	No action pending from LUMA because the facility study and interconnection study have not been completed by S&L.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		approval back on July 2022. After a resolution of a commercial issue with LUMA, PREPA with Xzerta's approval assigned S&L. As of 11/04/2022, S&L is reviewing all design documents. Xzerta provided on 12/22/2022 a revised PSSE files as per the comments provided by S&L on 12/07/2022.		study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.	
	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.	
	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	In Progress	Preliminary Transmission line design defining the route has been released on 11/23/2022 and it is under evaluation by LUMA's department	The 11/23 request was received and is under evaluation by the LUMA team.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		RFI. LUMA responded that it will be required to be address 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 2 nd 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 by 11/23/2022 and another letter to requesting the permit of usage of the easement was sent to LUMA Land Dept on the same date.		of Land and permits. Approval of usage of the easement is required for final design.	
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	Modifications received. Discussions are undergoing awaiting new	

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
				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 necessary space for the increased capacity.	Completed		
	D. Mars CPA Report	Commissioned a report from our accounting firm Mars CPA regarding	Completed		

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		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.			
	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	After latest Meeting with both PREPA and LUMA, PREPA has engaged Sargent and Lundy to conduct the study. During the month of December as stated on other sections above Xzerta interacted with S&L to provide additional information or revisions.	
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	Completed		
	I. SCADA Systems Design	Lisaidyn Perez	Completed		
	J. Modeling and Simulations	Enerzinx	Completed	Submitted on 07/2022 and a 2nd revision on 12/22/22 Design Documents Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA/PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.	No pending action from LUMA because the facility study and interconnection study have not been completed by S&L. •
	K. Relay Study	Enerzinx	Completed	Resubmitted to Luma incorporating comments on 10/28/2022.	No pending action from LUMA because the facility study and interconnection study have not been

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
				Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA / PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.	completed by S&L. .
	L. Transmission Lines	Xzerta have contracted Eng. Ronald Hopgood as the local engineer of record in our team.	Completed		
3	Construction				
	A. Permits	Completed the following: 1. Location 2. Environmental 3. Endorsements by -Highway and Transportation Authority - Puerto Rico Energy Bureau - Cultural Institute - Puerto Rico Aqueduct and Sewer Authority - Department of Agriculture Pending 1. NWP-14 2. NPDES General Permit	In progress	Still waiting for LUMA/PREP A approval for usage of ROW/ Easement	Request for usage of existing easement was received and is under evaluation by the LUMA team.

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
		3. Permits Management Office (OGPe) - Calculations for construction square footage were completed to finalize permit. Permit 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 (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. Under S&L review and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA/PREP A approval as per Article 4.2 and 9.4 for	LUMA's review of materials on the developer's facilities up to the high side of the step-up transformer is not required. It is the developer's responsibility to comply with the MTRs and applicable codes and regulations. The MTR compliance is an output of the interconnectio

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
				release to Xzerta for completion of final design. There is no distinction between the materials that will be utilized for the facility vs the step-up transformer to point of connection does not exist in the contract. As per article 9.4, the design including the facility will required to be approved by PREPA and/or their representative.	n studies.
	B. Orders	Waiting for LUMA's or PREPA's approval of proposed products.	In progress	Lead time of equipment could impact final implementation of project	LUMA's approval of the orders of materials on the developer's facilities up to the high side of the step-up transformer is not required. It is the developer's responsibility to comply with the MTRs and applicable codes and regulations. The MTR compliance is

LUMA Comments

#	Activity	Description	Status	Comments	LUMA Comments
					an output of the interconnection studies.
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 update their quotes, but final prices and contract are pending on the final approvals.	In progress	Waiting for S&L review of design documents and pending completion of the interconnection study and facility study as per Article 4.2. Results are pending LUMA/PREPA approval as per Article 4.2 and 9.4 for release to Xzerta for completion of final design.	No pending action from LUMA because the facility study and interconnection study have not been completed by S&L. .
	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 inf and the final approval of design.	

LUMA Comments

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	
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 clarified.
3	RFI-003	SCADA Communication Protocol and Sample of Points	Closed	5/23/2022	Received List. TBR	
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	Item is not closed. Request for usage of existing easement was received and is under evaluation by the LUMA team.
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	

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
					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).	
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	Item is not closed. Item will be reviewed upon completion of the interconnection studies by S&L.
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	Open	7/11/2022	Equipment evaluations are pending completion of the	

LUMA Comments

#	Number	Description	Status	Date Submitted	Comments	LUMA Comments
					Interconnection and Facility Studies performed by S&L.	
10	RFI-010	Request for approval of Dynamic Studies	Open	7/11/2022	Approval pending completion of the Interconnection and Facility Studies performed by S&L.	
11	RFI-011	Request for approval of 3P Main Step-Up Oil Transformer 34/115 KV	Closed	7/11/2022	LUMA stated that is pending on interconnection study performed by S&L	
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	
14	RFI-014	Request PLS-CADD files for Transmission line detailed design		Closed	12/6/2022	LUMA provided the requested information and files

LUMA Comments

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	Open	9/21/2022	LUMA stated that is pending on interconnecti on study performed by S&L	
2	XTA-TRA-0002	Energy Yield Assessment	Open	9/30/2022	LUMA stated that is pending on interconnecti on study performed by S&L	
3	XTA-TRA-0003	Relay Study and Updated Preliminary design based on LUMA's Comments of 10/3/2022	Open	10/28/2022	LUMA stated that is pending on interconnecti on study performed by S&L	
4	XTA-TRA-0004	Xzerta Ltr 2nd Request of Permit Use of ROW and Rev 14 SLD Preliminary Design	Open	11/23/2022	Received and under evaluation by the LUMA team	