## **Technical Specifications**

Item	Specification	Statement of Compliance	Annex
of each Stateme reference uncondi indepen subseque liable for that is f may be	s must state here either "Comply" or "Not Comply" against ear Specification stating the corresponding performance parametrs of "Comply" or "Not Comply" must be supported by evidenced to that evidence. Evidence shall be in the form of manufacture itional statements of specification and compliance issued by dent test data etc., as appropriate. A statement that is not sently found to be contradicted by the evidence presented will represented to be false either during Bid evaluation, post-qualification regarded as fraudulent and render the Bidder or supplier liable laws and issuances.]  LOT 1: SOLAR PV POWER SYSTEM AT BACOLOD BU	ch of the individeter of the equivace in a Bidders r's un-amended sy the manufact supported by ender the Bid until ance or the support the execution e for prosecution	pment offered. Bid and cross- sales literature, urer, samples, evidence or is der evaluation orting evidence of the Contract a subject to the
D.	(Micro Inverter type)	Γ .	
Phase A	Structural Analysis  The scope of work also includes conducting a structural analysis to determine the existing structure's loading capacity and issuing a Certificate of Structural Adequacy/Stability if the roof deck and its supporting structures are found to be structurally sound. If it is necessary to retrofit the building structure, the Contractor's Structural Engineer shall prepare and submit complete technical documents (retrofitting design and plans, specifications, and cost estimates). The retrofitting of the roof deck and its support structures, which is a separate project shall be outsourced by the SSS.  The submission of Certification of Structural Adequacy/Stability or the Technical Documents is proof of completed structural services under Phase "A" of the project.	comply	
	Submit Certificate of Commitment to render and observe the scope of works of the structural analysis services.		
Phase I	3		
1.	Design/computation showing the system capacity, single line diagram, quantity of Solar panels, Micro inverters, circuit protection devices and online monitoring devices, projected savings/investment recovery.		
	<b>Note:</b> The bidder must submit design of PV system and shall have an initial power rating of 29 kWp (min.) with net metering as per design submitted.		

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Item	Specification	Statement of Compliance	Annex
	Below 29kWp will be ground for disqualification.		
	Bidders must submit the following sub-items:		
	Proposed designed plans signed by licensed Electrical Engineer		
	Projected savings/investment recovery or tabulated calculations energy production and/or graphical presentation of savings for 12-year period signed by a Licensed Electrical Engineer.		
2.	Solar PV modules		
	<ul> <li>Cell type: Mono-crystalline</li> <li>Power rating: 480Wp or higher</li> <li>Guaranteed performance: 25 years (min.)</li> <li>Performance linear warranty: 25 years (min.)</li> <li>Product Warranty: 12 years (min.)</li> <li>Certification and Standards: IEC 61215 and IEC 61730 or approved equivalent</li> </ul>		
	Submit brochure/catalogues indicating the requirements		
3.	Inverter (Micro Inverter) Supply, Delivery, and Installation of Micro inverter with built in rapid shutdown.  Inverter Peak output power: 450W min.  Nominal voltage: 240V (=/- 10%)  Frequency: 60Hz  Warranty: 25 years  Smart grid ready/Grid Regulation: complies with CA rule 21 or (UL 1741-5A), or IEC61727 or equivalent  Enclosure/Ingress Protection Rating: Class II double-insulated, corrosion resistant polymeric enclosure. NEMA-6 / IP67  Certification and Standard: UL Listed/IEC/EN or approved equivalent.  Short Circuit current: (25 A min.)  Submit brochures/catalogues indicating the above requirements		
4.	Online communication devices - for the monitoring of the		
	system performance and other electromechanical parameters.  Submit brochures/catalogues showing - Online communication devices		



Name:		
Legal capacity		
Signature:		
Duly authorize	d to sign the Bid for and behalf of:	

Milles

## **Technical Specifications**

Item	Specification	Statement of	Annex
	<u>-</u>	Compliance	
of each Stateme reference uncondi indepen subseque liable for that is for may be applicate	s must state here either "Comply" or "Not Comply" against ear Specification stating the corresponding performance parameters of "Comply" or "Not Comply" must be supported by evidence to that evidence. Evidence shall be in the form of manufacture stional statements of specification and compliance issued be dent test data etc., as appropriate. A statement that is not sently found to be contradicted by the evidence presented will represented to the false either during Bid evaluation, post-qualification of regarded as fraudulent and render the Bidder or supplier liable ble laws and issuances.]  T2: SOLAR PV POWER SYSTEM AT CAGAYAN DE ORG	ch of the individeter of the equiverse in a Bidders of the manufact supported by ender the Bid unance or the suppor the execution e for prosecution	pment offered. Bid and cross- sales literature, urer, samples, evidence or is ader evaluation orting evidence of the Contract a subject to the
	(Micro Inverter type)		, pv
Phase	Structural Analysis		
A	The scope of work also includes conducting a structural analysis to determine the existing structure's loading capacity and issuing a Certificate of Structural Adequacy/Stability if the roof deck and its supporting structures are found to be structurally sound. If it is necessary to retrofit the building structure, the Contractor's Structural Engineer shall prepare and submit complete technical documents (retrofitting design and plans, specifications, and cost estimates). The retrofitting of the roof deck and its support structures, which is a separate project shall be outsourced by the SSS.  The submission of Certification of Structural Adequacy/Stability or the Technical Documents is proof of completed structural services under Phase "A" of the project.		
	Submit Certificate of Commitment to render and observe the		
Dhasa	scope of works of the structural analysis services.		
Phase I	Design/computation showing the system capacity, single line diagram, quantity of Solar panels, Micro inverters, circuit protection devices and online monitoring devices, projected savings/investment recovery.		



Item	Specification	Statement of Compliance	Annex
	The bidder must submit design of PV system and shall have an initial power rating of 75 kWp (min.) with net metering as per design submitted.		
	Below 75kWp will be ground for disqualification.		
	Bidders must submit the following sub-items:  Proposed designed plans signed by licensed Electrical Engineer		
	Projected savings/investment recovery or tabulated calculations energy production and/or graphical presentation of savings for 12-year period signed by Licensed Electrical Engineer.		
2.	Solar PV modules		
	<ul> <li>Cell type: Mono-crystalline</li> <li>Power rating: 480Wp or higher</li> <li>Guaranteed performance: 25 years (min.)</li> <li>Performance linear warranty: 25 years (min.)</li> <li>Product Warranty: 12 years (min.)</li> <li>Certification and Standards: IEC 61215 and IEC 61730 or approved equivalent</li> </ul>		
	Submit brochure/catalogues indicating the requirements		
3.	Inverter (Micro Inverter) Supply, Delivery, and Installation of Micro inverter with built in rapid shutdown.  Inverter Peak output power: 450W min. Nominal voltage: 240V (=/- 10%) Frequency: 60Hz Warranty: 25 years Smart grid ready/Grid Regulation: complies with CA rule 21 or (UL 1741-5A), or IEC61727 or equivalent Enclosure/Ingress Protection Rating: Class II double-insulated, corrosion resistant polymeric enclosure. NEMA-6 / IP67 Certification and Standard: UL Listed/IEC/EN or approved equivalent. Short Circuit current: (25 A min.)		
	Submit brochures/catalogues indicating the above requirements		



Item	Specification	Statement of Compliance	Annex
4.	Online communication devices - for the monitoring of the system performance and other electromechanical parameters.		
	Submit brochures/catalogues showing - Online communication devices		

Name:	
Legal capacity:	
Signature:	
Duly authorized to sign the Bid for and behalf of:	
Date:	



## **Technical Specifications**

Item	Specification	Statement of Compliance	Annex
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	(Micro Inverter type)		-
Phase	Structural Analysis		
A	Structural Analysis		
	The scope of work also includes conducting a structural analysis to determine the existing structure's loading capacity and issuing a Certificate of Structural Adequacy/Stability if the roof deck and its supporting structures are found to be structurally sound. If it is necessary to retrofit the building structure, the Contractor's Structural Engineer shall prepare and submit complete technical documents (retrofitting design and plans, specifications, and cost estimates). The retrofitting of the roof deck and its support structures, which is a separate project shall be outsourced by the SSS.		
	The submission of Certification of Structural Adequacy/Stability or the Technical Documents is proof of completed structural services under Phase "A" of the project.		
	Submit Certificate of Commitment to render and observe the		
Phase I	scope of works of the structural analysis services.		
1.	Design/computation showing the system capacity, single line diagram, quantity of Solar panels, Micro inverters, circuit protection devices and online monitoring devices, projected savings/investment recovery.		

Note:

Mode

Item	Specification	Statement of Compliance	Annex
	The bidder must submit design of PV system and shall have an initial power rating of 60 kWp (min.) with net metering as per design submitted.		
	Below 60kWp will be ground for disqualification.		
	Bidders must submit the following sub-items:	<u>l</u>	
	Proposed designed plans signed by licensed Electrical Engineer		
	Projected savings/investment recovery or tabulated calculations energy production and/or graphical presentation of savings for 12-year period signed by Licensed Electrical Engineer.		
2.	Solar PV modules		
	<ul> <li>Cell type: Mono-crystalline</li> <li>Power rating: 480Wp or higher</li> <li>Guaranteed performance: 25 years (min.)</li> <li>Performance linear warranty: 25 years (min.)</li> <li>Product Warranty: 12 years (min.)</li> <li>Certification and Standards: IEC 61215 and IEC 61730 or approved equivalent</li> </ul>		
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3.	Inverter (Micro Inverter)  Supply, Delivery, and Installation of Micro inverter with built in rapid shutdown.  Inverter Peak output power: 450W min.  Nominal voltage: 240V (=/- 10%)  Frequency: 60Hz  Warranty: 25 years  Smart grid ready/Grid Regulation: complies with CA rule 21 or (UL 1741-5A), or IEC61727 or equivalent  Enclosure/Ingress Protection Rating: Class II double-insulated, corrosion resistant polymeric enclosure. NEMA-6 / IP67  Certification and Standard: UL Listed/IEC/EN or approved equivalent.  Short Circuit current: (25 A min.)		
	Submit brochures/catalogues indicating the above		
	requirements		



Item	Specification	Statement of Compliance	Annex
4.	Online communication devices - for the monitoring of the system performance and other electromechanical parameters.		
	Submit brochures/catalogues showing - Online communication devices		

Name:	
Legal capacity:	
Signature:	
Duly authorized to sign the Bid for and behalf of:	
Date:	

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