Tender No. (SELCo. 06/2020)

Street Lighting Units

Sum(NIS)	

Company……. **Signature…….**

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The following data shall be filled and submitted with the tender:

Tender Number:……...

Tender Name:……...

Supplier Name: …….

Contact Person: ……

Address: ……....

Telephone Number: ……..

Fax number: ……..

Mobile Number: ……...

Email: ……

Bid Submission date and time: ……

Company……. **Signature…….**

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Instructions to bidders

- *The bidder must submit samples, technical specifications and test certificates for all offered items.*
- *The bidder must submit a bank guarantee equivalent to 5% of the tender total value, the validity of the bid and the guarantee will be 90 days from the date of submission; otherwise, quotation will be rejected.*
- *The offer with lowest price who passes the initial technical evaluation will be initially awarded for a pilot project. the final letter of award is subjected to the pilot project evaluation.*
- *The finally awarded supplier and within 10 days from receiving the awarding letter shall submit a performance guarantee equivalent to 10% of the tender value, valid for 180 days.*
- *The finally awarded supplier and after delivery shall extend the performance guarantee to be valid for 2 years. The performance guarantee will become the maintenance guarantee.*
- *The warranty of the delivered goods shall be as mentioned in general specifications.*
- *The tender is indivisible.*
- *Prices are in NIS Excluding VAT.*
- *In case of mistakes in summation, the unit price will be considered.*
- *Payments: within 30 days from delivery and technical approval.*
- *Delivery: within (60) days from the date of accepting and informing the bidder of acceptance of quotation or according to the agreement after awarding the tender.*
- *Fines: 1% of the item price per week of delay and not more than 5% of total bid value.*
- *Prices including all charges up to the warehouses of SELCO.*
- *Bid document price is 500 NIS and will be paid when submitting the offer by the participants.*
- *The supplier shall submit one original and copy of his offer.*
- *The awarded supplier shall bear all the expenses of two engineers from SELCo to visit and inspect the goods at the manufacturer premises including travelling and accommodation and all related costs.*
- *Wednesday October,14th 2020 12:00 pm is the final time of receiving the offers at SELCo headquarter/Procurement department and in sealed envelopes. The bid opening will be in the same time and date.*
- *Discount at source certificate is required.*
- *Tender document could be obtained from SELCo website or from procurement department.*

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- *For further information please do not hesitate to contact the procurement department:*
  Tel: 02 2283602/3
  Fax: 02 2283601
  Email: abed@selco.ps
  Website www.selco.ps.

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Tender (SELCo 06/2020)
Street lighting Technical Specifications

No.	*Item*	*Technical Specifications*
1	**General Specification LED Street Lighting Fixture**	**1- General** • The design, specification, calculation, manufacturing, testing, shipment and performance of LED lighting system shall be in accordance with the applicable requirements (as listed in the spec mentioned below) of all clients electrical and lighting standards for electrical distribution works, except as specified herein. The LED luminaires shall be designed to operate continuously at the Palestine weather (ambient temperature and humidity) with special attention given to the effects of direct sun-exposure during the day and the occasional sand storms and dusty weather. The manufacturers shall guarantee adherence to this Specification and the performance of their LED luminaire under all the required design for the Palestine weather local conditions. • The offered luminaires shall be in full compliance, without any deviation from this Specification • The LED luminaire shall be provided with suitable optical assembly for mounting on light poles and shall provide efficient even low- glare illumination with correct cut-off angles. • The luminaire housing shall be slim with low profile. The finishing shall be done by a housing to be of either extruded aluminum or die cast aluminum with very low copper-content and high corrosive resistance. • Test report to be provided for the entire luminaire as an end product for Salt Fog test as per ASTM B-117 or ISO 9227 for 5000 Hrs or similar International equivalent standard. Refer to Palestinian pal weather website(http://www.palweather.ps/) • Test report will show effect on the housing and also effect on light output after this test is performed. The finish coating for housing shall be with an anti-

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		corrosive anodized/painting process or equivalent. Refer to Palestinian pal weather website (http://www.palweather.ps/). • Tests reports have to be completed with real projects working in similar weather conditions (Palestine weather). If possible, tests should be undertaken in similar climatic conditions as in Palestine. Refer to Palestinian pal weather website (http://www.palweather.ps/). • The finish shall withstand a 5,000 Hrs salt fog test done in accordance with ASTM B117 standard. The driver shall be integral to the fixture head, in its own compartment in a dustproof environment, enabling easy access to the driver without the need of a simple tool for easy maintenance requirements. • Samples is compulsory requested for technical evaluation. • Test reports and catalogs shall be submitted with the tender. **2- Optical Control** The luminaire shall be fitted with optical refractors over each LED module providing a precision grid. Arrangements with aluminum reflectors to direct luminous flux will not be acceptable. The optic proposed shall be IES Type II and shall be suitable for illumination of target areas efficiently and uniformly. **3- Thermal Management** The Luminaire shall feature heavy duty heat sinks to ensure excellent heat dissipation. Refer to Palestinian pal weather website (http://www.palweather.ps/) The design of the heat sinks shall be such that there is a direct thermal path from the led junctions to the atmosphere thus providing a thermal transfer effect throughout the life of the luminaire. The heat sinks shall be proprietary and designed by the lighting manufacturer to enable the luminaires to work efficiently.

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		4- Ingress Protection The LED Fixture's Driver and LED Engine/optical unit components shall be externally fully rated at a minimum of IP-65 (with the driver or driver housing to have a minimum rating of IP-66) and have proven means of negating internal condensation build-up. **5- Copper Content** All Aluminum Die-cast components shall have a very low copper content for corrosion resistance. The finish coating for housing shall be with an anti-corrosive anodized/painting process. The finish shall withstand a 5000 Hrs salt fog test done in accordance with ASTM B117 standard. **6- Body Material** High grade Aluminum utilizing 4 stage PCP with flexible arms riding on lighting pole arm suitable with any outer diameter and in any angle **7- DLOR:** 99.2% **8- Quality Assurance** • The Supplier should provide a standard production model luminaire sample, identical (including LED Package) to the proposed product, to be installed for inspection. The Supplier should also provide independent testing of sample luminaires to verify luminaire performance and compliance with the specifications. Testing shall be conducted as per the applicable IESNA, ANSI or approved International equivalent approved methods of products using Solid Stage Lighting (SSL) sources. The Supplier shall be sole judge regarding acceptability of optical system performance. All testing certificates shall be from a Laboratory certified/approved by UKAS or UL accredited to the National

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		Voluntary Laboratory Accreditation Program (NVLAP) Refer to Palestinian pal weather website(http://www.palweather.ps/) **9- Standard Compliance** The required units shall comply with the following standards: • Have the TUV certificate . • The sample shall be in conformity of annex I of council directive 2014/30/EU . • Shall comply with TUV Rheinland LGA products GmbH - tillystraBe 2 - 90431 Nurnberg . • THIRD PART TEST REPORTS , MINIMUM (DEKRA) • shall have this test standards : ✓ EN 55015-2013 ✓ EN 51547:2009 ✓ EN 51000-3-3:2013 ✓ EN 51000-3-2:2014 ✓ EN 62262:2002 ✓ EN 60529 ✓ IEC 61347-1:2015 ✓ IEC 61347-2-13:2014/AMD1:2016 ✓ ELG-100-48 ✓ ELG-150-48 ✓ CB TEST REPORT • IK10 **10-Warranty** **LED Luminaire Warranty** – The Contractor shall provide a written undertaking to the satisfaction of client to warranty the materials and performance as follows: • A written warranty for a minimum five years (5 years) to replace failed Electronic Drivers. • A written warranty to replace defective or non-starting LED source assemblies with no cost to client. • A written warranty for performance LED fixture for a minimum five years (5 years)
2	**Light Source**	The light source shall be high brightness Light Emitting Diodes (LEDs). The luminaire shall consist of single or double module arrays with five or ten modules as required by the project. The optical

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		performance shall be achieved by nano-optics with a Precision Grid Delivery system. The **CRI ≥70** The modules shall be removable / replaceable on site without any possible risk to maintaining luminaire photometry and without the need to demount the fixtures for sake of future upgrading/maintenance requirements.
3	**LED Luminaires-LED exterior lighting**	• **<u>Whole Luminaire Efficacy</u>** - The luminaire efficacy shall be at minimum 100 Lumens per watt without affecting the required illumination which is given as Total Luminaire Delivered Lumen Output over Total Luminaire Circuit Watts and evidenced by a photometric test report for test performed according to IESNA LM-79 format from an independent / NVLAP accredited laboratory.
4	**LED Sources Technical Requirements**	*- Within the fixture the LED sources shall meet the following requirements:* Note. Attach separate supporting documents if required. • Operating temperature rating shall be between – 40°C and minimum +50°C at a minimum 95% Relative Humidity (RH). • Non-operating/daytime temperature: all LED components to be designed to tolerate between – 25°C and minimum +65°C • Correlated color temperature (CCT): 4000K • Color rendering index (CRI) : ≥ 70
5	**LED Drivers Technical Requirements**	*- Within the fixture the LED driver(s) shall meet the following requirements:* • Drivers shall be 1-10v and have a minimum efficiency of 85%. • Case (Tc °C) Temperature rating -25°C to minimum +65°C. The Driver and driver output current must be shown to be fully standard tested and compatible with the exact LED chips/engine of the luminaire. All information provided and the cost analysis/payback calculations should be calculated with the exact drive

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		current including the calculation for the life cycle, life and resultant increase or decrease of the energy consumption if applicable. • Input voltage; capable of 120-277 volt single phase. • Luminaire to be provided with integral 10kV surge suppression as standard • Drivers shall have a Power Factor (PF) of L: ≥ 0.92. • The drive current must be field adjustable to provide for flexibility in usage. Data providing the power consumption and lumen outputs at various settings of field adjustability is to be Provided • Drivers shall have a total individual luminaire Harmonic Distortion (THD) of: ≤ 20% in accordance with ANSI C82.77 (2002). • Frequency Range 53~47Hz
6	**Luminaire Requirements**	*- The dedicated luminaire expected useful life (light output) and Depreciation requirements shall be as follows:* • Useful Life Requirements The useful life of the luminaire in terms of lumen output must be as specified by one of the following two methods. a- The required operating hours equal 50,000 hours (any offer less than this value is not acceptable) b- Site performance method. A life time of number of hours specified by the site based on expected site lighting useful life must be capable of providing the c- luminance levels of uniformity.

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7	**Mast arms**	Mast arms shall be made of galvanized steel and shall provide upsweep and luminaries tilt for proper lighting performance. Mast arms shall be supplied in (1.5 inch diameter ,1.5 meter nominal lengths ,2mm thickness). Mast arms shall be designed to withstand stresses due to winds, and shall be suitable for steel or wood pole mounting or wall mounting. Mast arms shall be supplied complete with all fixing clamps.

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Schedule of requested materials

Item	Description	Unit	Qty	Unit Price (NIS)	Total Price (NIS)
1	Complete Street lighting unit, LED type, (3,000 lumens at 8m height)	Pcs	2,100		
2	Complete Street lighting unit, LED type, (5,000 lumens at 8m height)	Pcs	1,000		
3	Complete Street lighting unit, LED type, (10,000 lumens at 12m height)	Pcs	300		
4	Mast arm 1.5 inch diameter, 1.5m length, 2mm thickness.	Pcs	2,100		
Total Excluding VAT					

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