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Solicitation Addendum

Addendum No.:	1
Solicitation No.:	18-R068305GD
Project No.:	
Solicitation Title:	Preventative Maintenance Services for Passenger Shelter Solar Lighting Systems
Addendum Date:	March 26, 2018
Procurement Contact:	Greg Davis, Contracts Negotiator, gregory.davis@mymanatee.org

RFO 18-R068305GD IS AMENDED AS SET FORTH HEREIN. RESPONSES TO QUESTIONS POSED BY PROSPECTIVE BIDDERS ARE PROVIDED BELOW. THIS ADDENDUM IS HEREBY INCORPORATED IN AND MADE A PART OF RFO NO. 18-R068305GD.

Add:

ATTACHMENT G, GENERAL AND TECHNICAL SPECIFICATIONS PERTAIING TO SOLAR LIGHTING, PASSENGER BUS SHELTERS

Attachment G, General and Technical Specifications Pertaining to Solar Lighting, Passenger Bus Shelters, has been added per this Addendum No. 1 and hereby incorporated into the RFO.

QUESTIONS AND RESPONSES:

Q1. Does Manatee request any minimum light output specifications to be met after maintenance? Industry standards use measurements for Peak, Average, and Minimum light output in a given area for security lighting? For example, 25fc at peak, 2.5 fc average and 0.1 fc in an area of 40 square feet measured at bench height.

R1. Yes, refer to Attachment G, Section G.3, incorporated herein, for the lighting output specifications.

Q2. What is the operation time for the safety light? Standard operation is from dusk till dawn, with bright lighting during operational times (dusk to 12 midnight) and reduced safety lighting during off peak hours (midnight to 5 AM)?

R2. There is a dimming function when no occupants are in the shelter and then the power up accomplished using a Passive Infrared (PIR) Circuit. The lighting pre-set specification is in Attachment G, Section G.5.

Q3. How much reserve power is required for the solar system? Standard autonomous power is 5 to 7 days.

R.3 Per Attachment G, Section G.6, the current specification is a minimum, two days of reserve power in the event insufficient solar power is generated due to the lack of sun/inclement weather

Q4. Is there advertising lighting in the shelters?

R.4 No

Q5. What time requirements are needed for the advertising lighting if present?

R.5 Not applicable.

Q6. Does Manatee request vendors to provide photometric plot drawings to give confirmation of above measurements?

R6. The Preventive Maintenance program is intended to confirm functionality, via the Vendor's Solar Lighting Performance Checklist. This conformance is with respect to solar lighting output for passengers, and not lighting for advertising.

Q7. Certificates - Will Manatee County require all replacement systems and parts be UL Listed?

R7. Yes

Q8. Does Manatee request vendors to provide detailed ALR calculations based on the worst solar isolation period of the year (December) for Manatee. Still adhering to the 1.25 Minimum ALR?

R8. No. The project scope is for Preventive Maintenance inspections and to define non-functional elements for solar lighting at specific passenger shelter locations.

Q9. Does Manatee request vendors to provide detailed autonomy calculations based on the worst solar isolation period of the year (December) for Manatee. Still adhering to the 5 plus days?

R9. No. The project scope is for Preventive Maintenance inspections and to define non-functional elements for solar lighting at specific passenger shelter locations.

Q10. Design - It is the understanding of American Total Transit that SOL lighting systems are no longer in business to supply replacements for failed parts for their shelter systems. As and if required does Manatee require the replacement Solar lighting systems to have a self-test feature to allow for regular easy system diagnostic checks? This would allow for ease of quarterly checking the systems operation and state of health 24/7 making it more economical for Manatee.

R10. Yes, the self-test charge/load feature is included in Manatee County's specifications as shown in Attachment G, Section G.5.

Q11. Warranty on replacement systems – typically there is a comprehensive warranty in place for the solar system, with a prorated battery warranty (due to varying placement and site conditions). For example: Each system shall have a minimum warranty of five (5) years. Photovoltaic panels shall have a minimum warranty of 20 years. Batteries shall have a prorated 5-year warranty (100% replacement for three years, 50% replacement for the 4th year,

25% replacement for the fifth year). Will Manatee require a warranty such as this on replacement batteries panels and electronics systems?

R11. Yes. Refer to Attachment G, Section G.2.

NOTE: Items that are ~~struck through~~ are deleted. Items that are underlined have been added or changed. All other terms and conditions remain as stated in the RFO.

End of Addendum

INSTRUCTIONS:

Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the response being deemed non-responsive.

AUTHORIZED FOR RELEASE: TW

ATTACHMENT G

GENERAL AND TECHNICAL SPECIFICATIONS PERTAINING TO SOLAR LIGHTING, PASSENGER BUS SHELTERS

G.1 SOLAR LIGHTING GENERAL INFORMATION

MCAT has performed extensive research in order to determine minimum solar powered lighting specifications for solar powered shelter lighting. Bidders shall provide a bid for the Urban Solar ® Model RMS 30/60 or an approved equal meeting the following specifications as the minimum allowable benchmarks for performance of the lighting unit. If not bidding an Urban Solar model RMS 30/60 lighting package, the Bidder shall be prepared to provide a sample of their product for evaluation by MCAT prior to award of the contract and/or delivery of the shelter components.

G.2 SOLAR LIGHTING WARRANTY MINIMUMS

A. Battery - 5 years (prorated)
B. LED's – 20 years
C. Controller – 5 years
D. Solar Panel – 20 years
E. Light Fixture – 10 years

G.3 SOLAR LIGHTING REQUIREMENTS

A. The minimum reading of foot candles (fc) at the ground level in the larger passenger shelter shall be no less than 5fc in the middle of the shelter and no lower than 15fc at a height of 4' from the ground (at the same location).

B. The light should be easily integrated into the interior of all MCAT passenger shelters and mounted at a height of approximately 8'.

C. Solar lighting shall be centered in the shelter and have even light distribution.

D. All wiring should be concealed.

E. A 110v hard wire solution shall be offered.

F. All exposed metal parts shall be powder coated to match the shelter.

G.4 LIGHTING SYSTEM PERFORMANCE REQUIRMENTS

A. The LED lighting fixture shall incorporate the latest LED technologies to provide uniform light with multi-directional mounting of LED's.

B. In the event one LED were to fail, the remaining LED's are to remain in operation.

C. The circuit substrate containing the LED's shall be made of flexible materials to allow the substrate to conform to different angles in order to achieve the minimum required fc readings as listed above. The secondary substrate shall be made of a flexible aluminum with a heat transfer epoxy between it and the flexible circuit containing the LED's.

D. The light fixture should at minimum contain 24, 1W, 100Lumen LED's. The LED's should be 5000k (+-10%) for natural daylight color representation. Any LED out of this range will not be acceptable to MCAT.

E. The light fixture shall have adequate heat sinking to maximize LED life at 100% non-condensing humidity. The working temperature range for MCAT's lighting system is estimated at between 10° and 130°.

F. A dimming function must be installed to change the intensity (and energy usage) of the system to 15% of full illumination when no shelter occupants are detected and shall power up to 100% at the first detection of a shelter occupant using a Passive Infrared (PIR) circuit. The sensitivity of the PIR circuit shall be adjustable to allow for different shelter location ambiance, i.e. passing cars, blinking lights, etc.

G.5 LIGHTING SYSTEM TECHNICAL SPECIFICATIONS

A. The water tight light fixture at minimum should be constructed of .090 inch thick aluminum, and ¼ inch clear polycarbonate lens that can be removed for cleaning. The light fixture shall be vandalism resistant in order to avoid paraphernalia to be stored in the unit.

B. The Solar Panel shall be a multi-crystal photovoltaic (PV) module that is capable of rotating to optimize the collection of solar light rays, and shall have a solar cell conversion efficiency of 16% minimum. It shall be designed to be mounted on the roof of the shelter specified herein.

C. The charger/controller shall at minimum be capable of performing regulation voltage disconnect to prevent overcharging at a setting of 14.1v.

D. A low voltage disconnect setting of 11.7v is required to prevent battery from deep cycle discharge.

E. Lighting preset to operational shut-down at 6 hours after dusk and resume operation at 2 hours pre-dawn; settings must be adjustable to different shelter scenarios.

F. Green and red charge/load lights are required and must be easily visible in a dark environment.

G.6 BATTERY REQUIREMENTS

A. A 12v sealed lead acid, maintenance free, non-spillable, and air shippable battery shall be supplied as the DC power source with a weather resistant in-line fuse holder and wire harness.

B. The battery shall be sized to meet the systems operational requirements and provide for 2 days of reserve power in the event insufficient solar power is generated due to the lack of sun in times of inclement weather. The battery must be installed within the lighting fixture to eliminate vandalism or theft of the battery.