



SOLICITATION ADDENDUM #2

Addendum Issuance Date: May 26, 2022
 Solicitation Number: RFP PTD22-001
 Offer Due Date: Tuesday, July 19, 2022, at 2:00 p.m. MST
 (Local Time)
 Title: Green Transit Technology

City of Phoenix
 Public Transit Department
 302 North 1st Ave.
 Suite 900
 Phoenix, AZ 85003
PTDProcurement@phoenix.gov

I. Solicitation Modifications.

- Section 6.14.1 Battery Electric Drive, second paragraph, is revised as follows:

The traction motors, batteries and major system components shall be designed to operate for not less than 300,000 miles without major failure or significant deterioration. Onboard batteries shall be capable of storage of **570kWh minimum rated capacity**. The traction motors shall be permanent magnet type, rated at 210kW minimum and able to achieve 1,500 lb-ft torque. The traction motor shall be able to provide and recover kinetic energy as well as retard mechanical momentum (regenerative braking).

- Section 6.14.3. Hybrid Electric Drive, last paragraph, is revised as follows:

The manufacturer shall warranty the traction motor(s) for a period of no less than twelve (12) years or a mileage of no less than 500,000 miles, whichever occurs first. The manufacturer shall also warranty all batteries for a period of no less than twelve (12) years with no limitation on mileage. This warranty shall also provide for replacement of any battery that falls below **60% usable capacity**.

- Section 6.18.2.2 Tires is revised as follows:

Tires shall be suitable for the conditions of revenue service and sustained operation at the maximum speed capability of the bus. Load on any tire at GVWR shall not exceed the tire supplier's rating. The manufacturer will provide all mounted tires and wheels. The buses shall be equipped with **305/70R22.5 (minimum) or 315/80R22.5 tires (preferred)**.

II. Written Inquiries.

In response to Offerors' written inquiries in accordance with the Solicitation's **Section 1.7** ("Inquiries"), the City of Phoenix ("**City**") provides answers to those inquiries below.

No.	Question	City's Response
1	<p>Sections 6.6.2.6 and 6.6.2.7, page 87:</p> <p>Ground clearance shall be no less than 10 inches, except within the axle zone and wheel area.</p> <p>Axle zone clearance, which is the projected area between tires and wheels on the same axial centerline, shall be no less than 5½ inches.</p> <p>The Proposer has a ground clearance of 8.6" except within the axle zone and wheel area. Minimum ground clearance at the location of the rear axle stabilizer bar is 5.24 in, this location is within the axle zone.</p> <p>We request your approval as this is inherent to our design and would prevent us from participating to this Procurement.</p>	<p>Not approved. No change to the specification is warranted. Please note that the response to question #5 may affect the offeror's ability to meet these measurements.</p>



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2	<p>Section 6.14.1 Battery Electric Drive, page 94:</p> <p>Onboard batteries shall be capable of storage of 600kWh minimum usable power.</p> <p>The Proposer onboard batteries nameplate maximum capacity is 564 kWh and the maximum usable energy is 451kWh which is based on a usable SOC window from 15% to 95%.</p> <p>We request your approval as this is inherent to our design and would prevent us from participating to the BEB part of this Procurement.</p>	<p>Not accepted. Please note that this addendum revises the battery electric specification to state a “minimum rated capacity” of 570kWh (not “minimum usable power” as provided in the solicitation).</p>
3	<p>Section 6.14.1. Battery Electric Drive, page 96:</p> <p>Proposals shall also include the ability to interface and receive a charge from shop/depot charging equipment with a charge rate of up to 250 kW utilizing a standard SAE J1772 DC CCS Type 1 connector.</p> <p>The Proposer offers two SAE J1772 DC CCS Type 1 connectors with a charge rate of 150 kW maximum.</p> <p>We request your approval as this is inherent to our design and would prevent us from participating to the BEB part of this Procurement.</p>	<p>Not accepted. No change to the specification is warranted.</p>
4	<p>Section 6.14.3. Hybrid Electric Drive, page 100:</p> <p>The manufacturer shall also warranty all batteries for a period of no less than twelve (12) years with no limitation on mileage. This warranty shall also provide for replacement of any battery that falls below 80% usable capacity.</p> <p>It should be noted that “power” based energy storage systems such as used on HEV buses are designed for full performance operation down to 60% original capacity at warrantable end of life. A HEV does not rely on significant quantities of energy for vehicle functionality, so a lower end of life capacity will still maintain full function of the vehicle. Managing impedance growth over life is a more important factor for a HEV power battery than the capacity degradation. The 80% capacity requirement is overly restrictive and appears to exclude different battery designs/types, which will still achieve the apparent implied intent of the hybrid requirement.</p>	<p>Accepted. In this addendum, the hybrid specification is revised so that the battery warranty for 60% usable capacity will meet the minimum expectations, but proposers who provide the battery warranty 80% usable capacity will exceed those expectations for scoring purposes.</p>



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	We request your approval as this is inherent to our ESS on our hybrid system and would prevent us from participating to the Hybrid bus part of this Procurement.	
5	<p>Section 6.18.2.2. Tires, page 111:</p> <p>The buses shall be equipped with 315/80R22.5 tires.</p> <p>The Proposer's buses are using 305/70R22.5 tires.</p> <p>We request your approval as this is inherent to our design and would prevent us from participating to this Procurement.</p>	Accepted. In this addendum, the specification is revised so that the 305/70R22.5 tires will meet the minimum expectations, but proposers who provide the 315/80R22.5 will exceed those expectations for scoring purposes.
6	<p>Section 6.32.1.1., page 176:</p> <p>HVAC systems utilizing refrigerant 407-C with screw type compressor shall have a minimum cooling capacity of 120,000 Btu. Preference will be given to providing the HVAC system with the highest cooling capacity and overall performance available for the application.</p> <p>The MCC HVAC system integrated to our hybrid and BEB platform with the highest cooling capacity is equipped with a scroll compressor and is using R134a refrigerant.</p> <p>We request your approval to accept MCC ECO136e units for this procurement as we have no offering with R407c refrigerant that has a cooling capacity higher than 120,000 Btu.</p>	Not approved. No change to the specification is warranted. The EPA is in the process of phasing this product out and shortages in supply of this product are already apparent. See epa.gov/snap/substitutes-mvac-passenger-air-conditioning-light-duty-medium-duty-heavy-duty-and-road#ref1a .

III. Remainder. The balance of the RFP specifications and instructions remain the same. Offeror must acknowledge receipt and acceptance of **all** addenda by signing the Addenda Certification form (**Section 7.8**) and submitting the form with their proposal.