



# CITY OF HOUSTON

Administration and Regulatory Affairs Department  
Strategic Purchasing Division

**Annise D. Parker**  
Mayor

Calvin D. Wells, Deputy Director  
City Purchasing Agent  
P.O. Box 1562  
Houston, Texas 77251-1562

F. 832.393.8755  
<https://purchasing.houstontx.gov>

March 8, 2011

**Subject:** Letter of Clarification No. 2 to Invitation to Bid No. S50-C23736 Furnish and Install Electric Vehicle Supply Equipment Stations for the Fleet Management Department

**To:** All Prospective Bidders:

This letter of Clarification is being issued for the following reasons:

- **To revise the specifications and respond to questions posed by prospective bidders:**

- 1.) See the attached additional drawing titled: Revision Houston Transtar Drawing Sheet A1.0:
- 2.) The following questions are as follows:

**Question #1** Section 1.3.9.2 says the EVSE must provide a minimum 6 inch square area for state provided decal placement on the front of the enclosure. Please clarify the size requirements and tell us if this decal can be applied to a curved surface?

**Answer:** Yes, the decal can be applied to a curved surface. The size requirements are as stated – there must be a 6 inch square area somewhere on the front of the enclosure where a decal could be placed. We have some flexibility on this regarding the location; regardless, there is a ARRA stimulus requirement that we place a ARRA decal on ARRA funded materials. To the specific questioner: Under the cables of the EVSE charger shall suffice as the area.

**Question #2** Is a copy of the “Project Manual”, which is referred to by the Construction Schedule, available? We didn’t see this anywhere.

**Answer:** Yes, see the City Document 00200, Instruction to Bidders, on the website address listed below.

A PDF version of Document 00200, Instruction to Bidders can be viewed on the following link:  
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C23736>

**Question #3** Does our attached schedule meet the requirements for the 01325-Construction Schedule? We couldn’t locate a copy of this anywhere.

**Answer:** Examples of acceptable formats range from Excel spreadsheets to Microsoft Project software (to be delivered as an electronic file). The Construction Schedule must clearly define dates and durations for mobilization at each charger location as well as purchase, delivery and installation of E.V. stations.

*Partnering to better serve Houston*

**S50-C23736**

**Furnish and Install Electric Vehicle Supply Equipment Stations  
for the Fleet Management Department**

**Question #4** Please confirm MBE/WBE requirements do not apply for this project.

**Answer:** Confirmed.

**Question #5** Please clarify the specs regarding communications requirements. Will the units be connected to a communications portal? Included in our standard pricing the units come with a 24/7 monitoring plan for repairs and data collection.

**Answer:** This is sufficient. The EVSE units must have the capability to apply a networking system to communicate.

**Question #6** Are bollards going to be required no matter what? Our unit provides its own concrete base crash protection that satisfies the City of Houston's 2-3 mph crash rating.

**Answer:** The City's definition of a bollard type unit is a "stand-alone pedestal that is not attached to a wall or a pole".

**Question #7** Please confirm the Payment schedule. Section 01502 discusses Mobilization progress payments, but we could not locate a payment schedule for the entire project. We need to know what that is, or do we need to propose one?

**Answer:** Read City Document 00700 General Conditions, Section 9 regarding payment. This states that the City only pays for the work performed. If the Contractor has a mobilized site, then they can bill for that mobilization. Yes, the Contractor can create a construction schedule and a cash flow schedule.

**A PDF version of Document 00700, General Conditions can be viewed on the following link:**  
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=C23736>

**Question #8** The question came up today regarding the 20' cable length. Utilizing the longer cord would allow the units to be placed behind the sidewalks and reduce the cost of concrete replacements and repairs. However, if this approach is adopted, it will impede pedestrian access on the sidewalk during times the units in use.

**Answer:** Cords cannot be strung along walkways. The required cord length must be 8 feet.

**Question #9** Will the online bid form be modified to allow for (13) dual point pedestal units and (1) dual point wall mounted unit?

**Answer:** Yes, see the revised electronic bid form.

**Question #10** May we propose wheel stops for the central library's wall mounted unit, in lieu of bollards? We think this will avoid any ADA accessibility issues.

**Answer:** Yes

**Question #11** Is this project tax exempt?

**Answer:** Yes

**S50-C23736**

**Furnish and Install Electric Vehicle Supply Equipment Stations  
for the Fleet Management Department**

**Question #12** Houston Transtar is expected to draw power from the pull boxes buried in the lawn. How will you want us to get a communications line in to the building?

**Answer:** All sites must use wireless technology.

**Question #13** At each location there was physical space to install breakers for the new units, but we have no way of knowing what the existing loads are on the existing panel and if the existing transformers are of adequate size. Would this be a change order to the awarded bidder if any locations are deemed to need additional upgrading?

**Answer:** The only sites that need infrastructure upgrades are Memorial Park and Kendall Library. If this assumption is correct, then a change order would be allowable.

**Question #14** Will there be any additional load calculations or other material needed for permitting or would we just pull a stand-alone electrical permit and (structural permit for concrete work)?

**Answer:** Nothing more.

**Question #15** Please clarify on Exhibit "1" that all licensed electrical contractor qualify to bid on this project. There is not many of these units installed around town to have the experience requirements of this Exhibit. Therefore we could not produce documents that we have installed these units before.

**Answer:** As long as the contractor is licensed to do electrical work in the State of Texas and in the City of Houston with a Master Electrician's License, then they would qualify, per the City of Houston's Electrical Code Enforcement Division.

**Question #16** Where are the "Line item bid sheets" for each location at on-line? I have not been able to locate them.

**Answer:** On the City of Houston, Strategic Purchasing website, located at ["purchasing.houstontx.gov"](http://purchasing.houstontx.gov). Search for the project using the bid number as the keyword, C23736. When you arrive at the table of documents, the bid sheet listing all the line item locations is below the table, just click the grey button that reads "Place Bid".

**Question #17** Will all the charging locations listed in the RFP require the software/network features you are requesting in Section 1.5, 1.6, 1.7?

**Answer:** Yes, all charging stations must have the network capabilities specified.

**Question #18** Are the DOE programs from ECOtality (Project EV) and Coulomb (Chargepoint America) being considered for this project?

**Answer:** The DOE programs that will fund public charging infrastructure through the EV Project and Chargepoint America elsewhere in the United States are not

**S50-C23736**

**Furnish and Install Electric Vehicle Supply Equipment Stations  
for the Fleet Management Department**

currently looking at the City of Houston, TX as a region where they will deploy free charging stations.

**Question #19** Is it possible to just bid the charging stations separate from the contractors bids? We are a manufacture of charging stations and I have had several contractors contact me for pricing. Is it possible that the City may choose a contractor mutually exclusive of the brand of stations?

**Answer:** Yes, you (a manufacturer for example) may bid just the charging stations. However, contractors cannot bid on just the installation. If we were to purchase only the charging stations, we would likely do the installs with a current City contract. Importantly, our **goal** is for a turn-key approach that includes both charging stations and installation.

**Question #20** Is the City able to accept a bid where the equipment is owned and managed by a third party with a fair market buy-out at the end of the term?

**Answer:** Yes, the City is able to accept a bid where the equipment is owned and managed (at the City's direction) by a third party for a specified term, with a fair market buy-out of the equipment at the end of the term by the City. However, the fair market buy-out price (or estimate) **MUST** be included in the bid price. Moreover, any end-of-term buy-out must be paid to the contractor in advance of the buy-out (since the funds are only available until the end of calendar year 2011). In other words, the bid price to furnish and install the charging stations must be all inclusive of up-front and/or end-of-term costs, and will be paid to the contractor upon installation of the equipment. If there is a fair market buy-out at the end of the term, and if the stations' fair market value is more expensive than the contractor estimated, then the contractor would need to pay that cost. The City will not pay any more for the charging stations than what is bid by the contractor.

**Note: No further questions will be accepted after the publication of this Letter of Clarification.**

When issued, Letter(s) of Clarification shall automatically become a part of the bid documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Letter(s) of Clarification. It is the responsibility of the bidders to ensure that it has obtained all such letter(s). By submitting a bid on this project, bidders shall be deemed to have received all Letter(s) of Clarification and to have incorporated them into this solicitation.

Furthermore, it is the responsibility of each Contractor to obtain any previous Letter of Clarification associated with this solicitation.

*Arturo Lopez*

Arturo Lopez  
Senior Procurement Specialist  
832-393-8731

Attachments: 1. Revised Houston TranStar Installation Drawing Sheet A1.0.  
2. Sample Specification Sheets on the GRIDbot UP 100J, Level 2, EVSE.



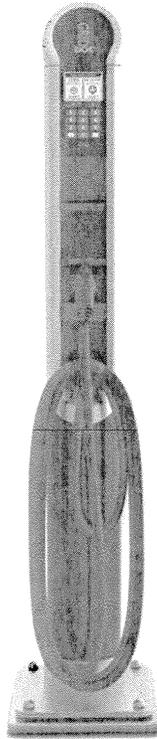
S50-C23736

## Furnish and Install Electric Vehicle Supply Equipment Stations for the Fleet Management Department

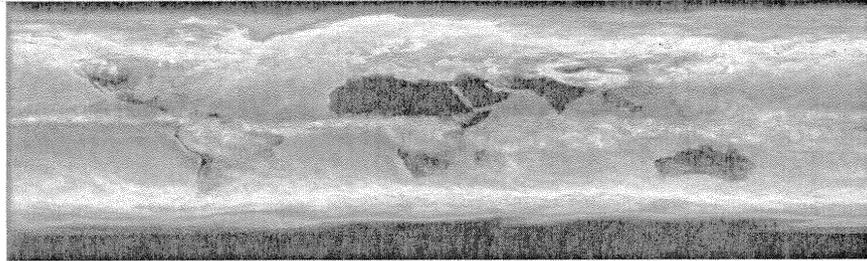
### Sample Specification Sheets on the GRIDbot UP 100J EVSE

**GRID  
bot™**

#### UP100J Specification Sheet



620 Congress Ave  
Suite 320  
Austin, TX 78701  
www.gridbot.net  
+1 (512) 810 2322



### Networked Electric Vehicle Charging Stations:

Designed to deliver the best user experience to your EV customers, while offering you the most robust product on the market. They are sturdy, vandal resistant, weather proof, corrosion resistant pedestals designed to be deployed in the harshest of environments. The UP100J is a dual charging station that is ideal for public and fleet. Here are a few feature highlights:

- + Park and Recharge two EVs simultaneously
- + Level-1 EV charging (from a Nema 5-20 outlet)
- + Level-2 EV charging (fully compliant with SAE J1772)
- + A time of day price-scheme can be set remotely through network
- + The owner can switch between "fleet", "vending" or "value" interfaces at any time
- + Stations continue to function normally in the case of network outage
- + Charging amperage, line frequency and voltage monitored
- + Patent pending personal protection system
- + Networked demand response control
- + Automated cold load ramp up
- + Remotely upgradable firmware
- + Bank level network security

Each UP100J station consists of the GRIDbot networked graphical user interface and two EV charging ports housed in a rugged 1/4 inch thick all aluminum, corrosion resistant pedestal. Each outlet is controlled by GRIDbot's patent pending safety controller, offering durable fail safe personal ground fault protection and ground monitoring technology.

Once installed, each UP station becomes part of the secure GRIDbot network, giving the owner remote control over several interface options including a wide array of data collection, value exchange, price setting, and diagnostic capabilities.

The "fleet" interface is designed to optimize the driver's plug-in experience and to facilitate fleet management by collecting data on a per vehicle basis.

The "vending" and "value" interfaces are designed to give EV drivers the best user experience, while providing an effective cost recovery business model for the station owners. Data and IDs are collected on a per user basis which facilitates various subscription mechanisms. In "vending" mode, the price of each port is set by owners online and displayed on the station. In "value" mode, EV drivers receive free charging by using GRIDbot's patented SMS cell phone interface.

Demand response control is built into each level-1 and level-2 port and is driven by patented line-monitoring algorithms, as well as signal control over the network. The maximum amperage draw of the level-2 vehicle can be adjusted at any time, during charging, with a 3 minute response. Additionally a network independent cold load ramp-up system softens the load draw on local transformers after an outage. The entire station firmware and interface is remotely upgradable, allowing new interfaces and protocols to be added from the server, as the industry EVSE industry learns what EV drivers, station owners, and businesses like best.

S50-C23736

## Furnish and Install Electric Vehicle Supply Equipment Stations for the Fleet Management Department

**GRID  
bot™**

**UP100J  
Networked  
EV Charging  
Stations**



620 Congress Ave  
Suite 320  
Austin, TX 78701  
www.gridbot.net  
+1 (512) 810 2322

### Specifications:

#### Electrical output:

Each UP100J EV station can charge 2 vehicles simultaneously, with one Level-2 standard coupler and one level-1 standard outlet

Level-2 output Voltage: 208 to 240 VAC

Level-2 output Current: 30 A

Level-2 output Connector: SAE J1772™ connector with up to 25ft cable

Level-1 output Voltage: 110 to 120 VAC

Level-1 output Current: 16 A

Level-1 output Connector: Nema 5-20 receptacle

Standby power consumed < 10Watts continuous

Total max. output power from station 9.6 kW

#### Electrical input:

Each station requires 2 dedicated circuits with a shared earth/ground wire for a total of 5 wires running to the station. Two power wires go to the Level-1 terminals, two power wires to the Level-2 terminals and a single shared ground wire goes to the grounding bar.

Level-2 Input circuit Voltage: 208 to 240 VAC

Level-2 Input Service Breaker: Dedicated 40 Amp double pole breaker (non-GFCI)

Level-1 Input circuit Voltage: 110 to 120 VAC

Level-1 Required Service Breaker: Dedicated Single pole breaker (non-GFCI)

Shared earth/ground wire equal to the largest current carrying conductor required

Total max input power for station 9.6 kW

#### Networking:

LAN: Physically and digitally secure hard wired Cat 5 between master and slave stations

WAN: Cellular data network options are available for the master station.

#### Safety and operational:

Safety: Meets NEC Article 625; SAE J1772; UL2594; UL 2231-1, and UL 2231-2 requirements

Operating Temperature: -30°F to +130°F (-35°C to +55°C)

Operating Humidity: Up to 95% non-condensing

Enclosure Rating: NEMA 3R

Terminal Block Temperature Rating: 212°F (100°C)

#### Interface devices:

Screen: Heated full color transfective LCD display, with auto brightness adjust for ambient light

RFID reader: Active multi-standard

Touch pad: Backlight numeric membrane type buttons

Level-1 and Level-2 LED status indicators: RGB led with auto brightness adjust for ambient light

#### Safety devices:

Level-1 and Level-2 Ground Fault Detection: 20mA Charge Circuit Interrupt Device (CCID20) including 3 auto retry (15 minute delay between each auto retry)

#### Detection devices:

Level-1 Plug-Out Detection: Power cutoff

Level-2 Plug-Out Detection: Power cutoff per SAE J1772™

Power Metering: 2% accuracy collected at intervals that are configured at the server.

Local Grid health: Service line voltage and frequency detection and logging.

Ambient light sensor: Automatically adjusts brightness of screen and indicator LEDs.

Ambient temperature sensor: Controls heating of LCD display in extreme cold.

**END OF DOCUMENT**