CITY OF AUSTIN
PURCHASING OFFICE
SOLICITATION NO. IFB TVN0086
SCOPE OF WORK

Description: Provision and Installation of Solar Photovoltaic Systems

I. PURPOSE

The City of Austin, hereinafter referred to as the City, seeks Offers in response to this Solicitation from Solar PV Contractors qualified and experienced in provision and installation of Solar PV arrays to provide the installation and commissioning of approximately 27.6 kW of Solar PV arrays on four (4) duplexes in the Guadalupe Saldana Net Zero Energy Subdivision located on eleven acres located near the intersections of Goodwin Avenue, Webberville Road, and Tillery Street in East Austin.

II. BACKGROUND

One of main goals stated in Austin Energy's 2003 Strategic Plan and the 2007 Climate Protection Plan is to meet 35% of all energy needs through the use of renewable energy, including at least 200MW of solar power by 2020. This plan calls for Austin Energy to support the development of an affordable net zero energy community which will enhance the City's ability to achieve its goals for Zero Energy Capable Homes by 2015 and allow Austin Energy to monitor how energy use impacts various energy efficiency measures designed into the buildings. It will also allow Austin Energy to determine the impact of a large number of PV systems in a single development connected to existing infrastructure.

III. SCOPE OF WORK

A. **Title of Program** Guadalupe/Saldana Net Zero Energy Homes

B. **Objective**

To create a community of Net Zero Energy Homes in Austin including single family homes and duplexes. The underlying purpose is to allow Austin Energy to study the technologies, systems, strategies and occupant behaviors that will enable very low or net zero energy use homes to become the standard for new construction in Austin and beyond. To this end AE will provide and have installed solar PV systems of sufficient size to make these units net zero energy over the course of a typical year as calculated by AE.

C. **Implementation**

The PV systems shall be connected to the buildings' electric service and the Austin Energy (AE) power grid. The power shall feed AC power into the Austin Energy power grid on the customer side of the meter when solar energy is collected and disconnected from the grid upon loss of grid power. The PV system will not include battery storage or power backup components. **The selected contractor will provide and install solar PV modules, inverters and balance of systems components for roof top PV installations.**

1. Installation:

   The successful bidder will design, provide PV systems and turnkey installation services for 8 housing units in 4 buildings. Prior to installation, the Contractor shall perform an electrical review of the entire photovoltaic system, both Direct Current and Alternating Current components, prior to installation to determine a 2011 National Electrical Code (NEC) and AE compliant interconnection method.

2. Location: The installations will include both the ground floor and upper levels of the following dwellings:

   - 1208 Paul Teresa Saldana St., Units A & B, Austin,78702
   - 1212 Paul Teresa Saldana St., Units A & B, Austin, 78702
   - 1216 Paul Teresa Saldana St., Units A & B, Austin, 78702
   - 1220 Paul Teresa Saldana St., Units A & B, Austin, 78702.

3. Schedule:

Contractor shall submit a detailed commissioning plan for review and approval by the Austin Energy Project Manager, and shall incorporate any modifications to the commissioning plan required by Austin Energy. Once the installation has been completed, and after all inspections have been performed and approved, Contractor shall test the system one (1) week prior to the proposed startup date.

After receiving written permission from Austin Energy to start the system, Contractor shall commission the system in keeping with all requirements of the commissioning plan, the inverter manufacturer startup procedures and the utility interconnection requirements. Once the system has been commissioned, the Project site shall be left free of all tools, materials and debris.

4. Installation Service Requirements

a. The four upper units of the duplexes require PV systems of 3.7 kW DC STC

b. The four lower units of the duplexes require PV systems of 3.2 kW DC STC

c. The output of the photovoltaic inverter shall not interfere with or damage the function of the building electrical distribution systems.

d. All serviceable components must be accessible as defined by the NEC Article 100.

e. The Contractor shall purchase and install the modules, racking systems, fasteners, MC quick connects or other approved connectors, wiring, connectors, conduit, grounding, and all other materials necessary to provide a fully functioning system. Contractor shall also provide all other tools, materials, and supplies required for the installations.

f. Contractor shall submit manufacturer's specifications and installation recommendations indicating compliance of engineering specifications and applicable codes prior to receiving authorization to proceed with purchasing of materials and services for construction.

g. Approval of system component locations, orientation, and configuration must be obtained from Austin Energy prior to proceeding with installation.

h. All work shall be performed in compliance with the 2011 NEC Guidelines and all City of Austin applicable codes including, but not limited to: residential building code, mechanical code, electrical code, solar code and energy code.

i. Contractor shall be responsible for securing all permits required for installation of systems. Contractor may invoice Austin Energy for the cost of pulling permits, at actual cost only. This information must be itemized on the invoice.

j. Contractor shall provide complete warranty services for the complete installed system for a period of five (5) years following acceptance of the completed project by Austin Energy.

k. Installation shall not void warranties; any penetrations shall be sealed and warranted against leaking for five (5) years.

l. Any clamps on standing seam metal roofs should be tightened to the correct torque rating as indicated in the instructions manual. Contractor shall provide a five (5) year warranty for any defects which may be caused by these clamps.

IV. CONTRACTOR RESPONSIBILITIES

A. Contractor shall attend a kick-off meeting to organize with Austin Energy staff and building owner and shall provide weekly progress reports to Austin Energy Project Manager.

B. Contractor shall coordinate installation of systems with the building's general contractor and Austin Energy Project Manager to ensure smooth flow of work at the site and to limit delays in the installation of solar PV systems.

C. All work at the site shall be performed within twenty-one (21) calendar days after award of notice to proceed.

D. Ensure that all products used are appropriate for the particular installation and are designed for the installation environment;

E. Ensure that rack, panels, connections and all other structural support members can support the array under live load conditions;

F. Ensure that all connectors have adequate pullout strength and shear capacities;

G. Maintain the waterproof integrity of the buildings, including selection of appropriate flashing or sealants;

H. Ensure safe installation of all electrical aspects of the PV array;

I. Ensure a neat job of organizing wires on rack;

J. Provide clean up and trash removal at work site(s) on a daily basis; and,

K. Secure all permits required for the installation of the PV system at the respective site.

L. Ensure full and timely payment of any subcontractors used on this project.

M. Provide timely and reasonable resolution of all warranty and performance issues, as identified by the Austin Energy Project Manager and/or the "site" owner.

N. The employee(s) possessing the NABCEP certification shall be assigned to the project, and shall be present at the site at all times that work is performed.

V. CONTRACTOR ELIGIBILITY REQUIREMENTS

To qualify for contract award, prospective Contractors shall meet all of the following minimum requirements.

A. Contractor shall attend a mandatory pre-bid meeting on 5/10/2013 at Austin Energy. There may be an optional project site walk-through meeting scheduled as at a later date.

B. Contractor shall have personnel who are accessible by phone or pager, for emergencies on weekends and evenings, as well as regular work hours. For this project, "Regular work hours" are defined as Monday through Friday 8:00am to 5:00pm.

C. One or more employees of the installation company must have a letter from the North American Board of Energy Practitioners (NABCEP) stating they have passed the NABCEP test (See Submittals).

D. Contractor shall demonstrate sufficient resources to complete the projects in a timely fashion and of acceptable quality (i.e. materials, personnel, project staff, equipment, etc.), including a copy of the last two (2) years of your organizations audited corporate financial statement

E. Contractor shall have been in business no less than five (5) years at the time of this solicitation and be currently registered with the Secretary of State to do business in Texas (See Submittals).

F. Contractor shall not currently be the subject of any litigation for projects not completed, completed but with warranty or Contractor performance/workmanship issues, or non-payment of subcontractors (See Submittals).

G. Contractor shall have experience designing and erecting the PV systems in residential construction applications.

H. For each completed site, Contractor shall submit a report with cost information shown in subcategories such as (where applicable): Modules, Inverter, Racking, Material, Permit Engineering, Project Management, Labor, Rental Equipment, and Monitoring.

VI. SUBMITTALS

A. Contractor shall submit, for all persons assigned to work on this project, a letter from the North American Board of Energy Practitioners (NABCEP) stating, he/she has passed the NABCEP test.

B. Contractor shall submit certificate from the Secretary of State, as proof Contractor is registered to do business in Texas, and that the Contractor has been in business at least five (5) years.

C. Contractor shall submit examples of completed solar photovoltaic system project(s), as proof of experience erecting PV systems in various lay-out designs. Provide written summary and pictures as examples of completed work.

D. Contractor shall submit Company's Safety Plan and safety experience

E. Contractor shall submit a statement, on company letterhead, stating that he/she or company is not currently be the subject of any litigation for projects not completed, completed but with warranty or Contractor performance/workmanship issues, or for non-payment of subcontractors.

F. Any contact information for any subcontractors (if any) identified.

G. Contractor shall submit a Project Schedule for approval by Project Manager

H. Contractor shall submit pictures of work site before and after completion of work to verify damage claim documentation.

VII. ACCEPTANCE OF WORK

Work shall be accepted as complete only after the following conditions have been met:

A. All City of Austin Building Inspection Department required inspections have been passed.

B. Austin Energy Solar Installation inspection has been passed.

C. Acceptance by the building or site owner.

D. Warranty documents have been provided to Austin Energy Project Manager.

E. All excess materials and debris from PV installation have been removed from site.

F. The system is operating and has acceptable electrical output.

G. An Operation and Maintenance manual for each unit has been provided to the building site owners and to Austin Energy Project Manager. O&M Manuals shall be provided both in digital format and in a 3-Ring Binder.