



November 20, 2012

**Proposal to:**

Worth Robbins, Manager  
Harvard Solar Garden Project I, LLC (HSG1)  
115 Massachusetts Avenue  
P.O. Box 469  
Harvard, MA 01451

This contract amends and restates the contract first executed December 20, 2011 between Harvard Community Solar Garden Project I, LLC and Solar Design Associates, LLC. The amendments are necessary because of changes in the size and location of the project, caused by inability to obtain necessary permits for construction at the original location.

**To Provide:** Solar Design Associates (SDA) is pleased to provide a binding, non-cancelable, turn-key design / build contract to Harvard Solar Garden Project I, LLC (HSG1) for the design, engineering, procurement and installation of a solar electric plant having a total of 1,196 Suniva 245 Wp solar modules for a total peak capacity of ~294,060 Wp (DC peak) on land owned by RDJ Realty Trust, located at 285 Ayer Road, Harvard, MA. SDA will provide services for this project over the following three phases: 1) Schematic Design, 2) Construction Documents, and 3) Procurement / Construction as described below. This proposal covers all the services required to deliver a complete, turn-key solar electric system, except as otherwise noted.

**Phase 1: Schematic Design:** SDA will collaborate with HSG1 Manager Worth Robbins, the Landowner, the HSG1 project team and consultants on the definition and design of system and component options for the solar plant. SDA will perform an on-site assessment of the property to ensure that the solar system is sized to take maximum advantage of the available sunlit area within that portion of the overall property defined by the landowner and approved by the Town of Harvard as being in compliance with applicable zoning and site use requirements.

SDA services in the schematic design phase shall include finalization of project goals and requirements, development of schematic solar system design options and initial estimation of solar system performance. SDA will help HSG1 identify a local civil / environmental engineering firm to define the necessary information about the site including boundaries, wetlands and topographical characteristics and sub-surface conditions. SDA will also assist HSG1 in developing the financial pro forma for the Project including identifying and applying for all available incentives. SDA will provide assistance with HSG1's application for the 1603 Treasury grant. SDA will work with the HSG1 team and its legal advisors to structure and make the advance materials purchases necessary to satisfy the Safe Harbor qualification for the 1603 Treasury grant.

Once the final size, location and configuration of the solar plant are decided upon, SDA will work with HSG1 to define the optimal location for the solar "balance-of-system" equipment, conduit runs and interface of the solar plant with the utility electrical distribution system. SDA will assist HSG1 in the preparation and submission of the interconnection application to connect the solar plant to the utility grid.

Deliverables under Phase 1 will include the results of the detailed on-site assessment of the property, a schematic layout of the solar plant, an initial performance harvest estimate, information on the interconnection of the solar system with the utility grid, signed and sealed electrical drawings and other technical documentation necessary to submit the application for grid interconnection with National Grid and assistance in the preparation and submission of this application.



**Phase 2 - Construction Documents:** Based on the approved schematic design work produced in Phase 1, SDA will finalize system design and engineering and then produce signed and sealed, permit-ready construction documents for approval by HSG1 and the landowner, permit submission and construction.

SDA will also define a web-accessible data acquisition and performance monitoring system for the installation. The system will provide real-time and archived historical performance data on solar system harvest and include 5 years' of data hosting / archiving on a backed-up data server. The DAS shall also include a web-accessible portal to present the solar harvest data to the HSG1's subscribers. An electronic revenue-grade utility meter will also be included to provide accurate reportage of the solar harvest for utility credit, HSG1 billing purposes and SREC sales.

SDA will develop a Bill of Materials for the major components in the system and will identify key long-lead-time items. SDA will facilitate a dialogue with code officials and utility representatives having jurisdiction over the project.

Deliverables under Phase 2 will include signed and sealed, permit-ready construction documents and specifications and schematics describing the solar plant's Data Acquisition and Monitoring System.

**Phase 3 – Procurement and Construction:** Once the design work and construction documents described in Phase 2 above are complete and approved, SDA will provide procurement and installation services to deliver a complete, turn-key solar electric system as set forth herein and, as detailed in the approved plans and specifications. SDA will source and procure all the necessary components and materials and supply all the labor for a fully operational system.

SDA will continue to facilitate discussions with local code officials and utility representatives having jurisdiction over the project regarding the installation, interconnection and approval of the PV system.

SDA will prepare and apply for the permit(s) for installation of the system and be responsible for turn-key construction and completion of the system.

SDA will retain the services of local trades to perform the installation work and will conduct a pre-construction conference to cover the scope and execution of the work as well as job-site safety requirements and the project schedule and, will coordinate, oversee and manage the installation process.

Upon completion of construction, SDA will provide on-site initial start-up and commissioning of the system to verify proper operation and obtain final sign-offs. SDA will also provide owner training and documentation on system operation and maintenance at the time the system is commissioned.

Deliverables under Phase 3 will include all materials and components necessary for construction of the system, a complete and fully operational solar plant with data acquisition system, an Operation and Maintenance manual and sign-offs from code and utility officials accepting the system.

**US Treasury 1603 Grant Program:** SDA will work with HSG1 and their legal advisors to address and satisfy the 'Safe Harbor' provisions of the Treasury's 1603 grant program. This includes the advance purchase of key components necessary for construction of the system – such as PV modules and/or DC-AC inverters, in the amount of at least 5% of the overall system costs prior to the end of December 2011. SDA will work with the HSG1 team to define the key components to be purchased, identify the best suppliers with a preference for US-made / Mass-made components, enter the order(s) and make the necessary payment(s) to secure the Safe Harbor provisions. SDA will also assist HSG1 in applying for incentive funding from the MA Clean Energy Center.

**SDA Deliverables:** All drawings will be provided in the form of AutoCAD DWG and/or PDF files and written materials will be provided as WORD, Excel and/or PDF files. All deliverables will be transmitted electronically except signed and sealed plan sets unless otherwise agreed upon.



**SDA System Warranty:** SDA will provide a 5-year warranty (the warranty period) to cover labor and materials including PV component breakdown or degradation in electrical output of more than five percent from the originally rated electrical output during the warranty period. The warranty will cover the entire PV system, including PV modules, inverter and associated components and provide for no-cost trouble shooting and repair or replacement of the PV system components, including any associated labor during the warranty period. The SDA warranty will include pass-thru factory warranties for the major components such as the PV modules (25 years) and inverters (10 years). During the 5-year warranty period, SDA shall serve as representative on behalf of HSG1 to seek any redress necessary under manufacturers' component warranties.

**HSG1's responsibilities:** HSG1 shall assign a Project Manager who will be the coordinator for this solar project and the key contact for SDA. The HSG1 Project Manager shall be responsible for negotiations with the landowner on all matters pertaining to the use of the site and shall take the lead along with SDA in matters involving the Town of Harvard approval process. HSG1 shall retain the services of a civil / environmental engineering firm to qualify the site for the solar use, including a boundary and topographical survey, sub-surface investigation, environmental factors and, to provide professional assistance as may be required in matters dealing with the Town of Harvard approval of the solar plant. HSG1 shall also arrange and pay for a dedicated broadband internet account and connection to facilitate data transfer / communications from the PV plant DAS, terminated at the location of the DAS installation.

**Insurance:** SDA shall obtain and carry insurance for the duration of this project for coverages in the following areas and amounts:

- General Liability - \$1,000,000 per occurrence; \$2,000,000 aggregate
- Automobile Liability - \$1,000,000
- Worker's Compensation - \$1,000,000
- Professional Liability - \$1,000,000; \$2,000,000 aggregate

A Certificate of Insurance shall be provided to the Customer upon commencement of work under this agreement. Harvard Solar Garden Project I, LLC and the Landowner shall be named additional insured.

**Arbitration:** All claims, disputes and other matters in question between the parties to this Agreement arising out of or relating to this Agreement or the breach thereof, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining unless the parties mutually agree otherwise. No arbitration arising out of or relating to this Agreement shall include, by consolidation, joinder of, or in any other manner, any additional person not a party to this Agreement. Notice of the demand for arbitration shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. The party initiating the demand shall notify the other party of the intention to arbitrate within ten days from the date when the claim, dispute or other matter in question has arisen. The award rendered by the arbitrators shall be final and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

**Schedule:** SDA anticipated being able to complete the system installation work by the end of Q2 2013 pending timely approvals by the financing entities, utility and code officials as well as weather that are all beyond SDA control.

**Cost:** SDA proposes to provide the services as defined above to deliver a complete, turn-key 294 kiloWatt (nominal peak) solar electric system for a fixed-price of \$5.50 per peak Watt of manufacturers' DC nameplate capacity for a total of \$1,617,330. Progress payments will be requested monthly in proportion to the work then completed and shall be generally in keeping with project milestones as set forth below.



Upon commencement / ordering 1603 hardware	88,830.00
Upon purchase of remaining modules	218,919.75
Commence design / ordering mounting system and inverters	75,000.00
Upon delivery of mounting system and inverters to site	389,391.25
Upon 25% completion of the array	90,000.00
Upon 50% completion of the array	90,000.00
Upon 75% completion of the array	90,000.00
Upon completion of the solar plant	89,990.00
Upon receipt of 1603 grant payment	485,199.00
Total system contract price	\$1,617,330.00

HSG1 shall make an advance payment of (\$88,830.) to SDA in a timely manner to purchase the components required to satisfy the Safe Harbor provisions of the US Treasury's 1603 grant program. SDA will then use these funds to complete the purchase of solar modules from a US manufacturer before December 31, 2011 for delivery on or about March 31, 2012 to satisfy the 1603 requirements.

**Allowance for Costs not included:** Of the total contract cost of \$5.50 / Wp, (\$1,617,330.00), the cost of the core design / procurement and construction is \$5.16 / Wp (1,517,349.60), with the following items not included in basic construction of the plant and, thus, to be covered by the remaining \$.34 / Wp as an allowance. Any costs incurred above the allowance for such items will be paid by HSG1.

These items include site qualification, involving: Survey, topographical, soils investigation, wetlands, endangered species and all other civil / environmental factors affecting the site and its approval by the Town of Harvard. Site preparation involving: Tree clearing, removal / grinding of stumps, and any filling and/or grading and re-seeding necessary. The cost of utility interconnection, involving: the extension of the medium-voltage 3-phase utility service by the utility to the solar plant and, the cost of studies and/or engineering that may be required by the utility to accomplish the interconnection.

Other costs outside of the \$5.16 / Wp basic construction include interest on the \$485,199 of financing carried during construction by SDA at 0.5% per month from completion of the solar plant until payment of the 1603 treasury grant; sales taxes; warehouse costs to safely store the solar modules pre-purchased to satisfy the Safe Harbor provisions of the 1603 grant between the time they are delivered from the manufacturer and the time they are needed on site for installation.

Another variable is permitting fees. The contract includes an allowance of \$4,500 for all permit fees for the HSG1 project. Any required fees above this allowance shall be charged to the allowance, or paid by HSG1.

**Extent of Agreement:** This Agreement represents the entire and integrated Agreement between HSG1 and SDA and supersedes all prior negotiations or agreements. This Agreement is a binding commitment between HSG1 and SDA and cannot be cancelled.

Submitted by:

Accepted by:

Steven J. Strong, for  
Solar Design Associates, LLC  
November 20, 2012

for Harvard Solar Garden Project I, LLC  
By: Worth Robbins, Manager  
November 20, 2012