



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

**Request for Proposals
for
Design/Build/Operate/Maintain/Finance Services**

SINGLE-STAGE COMPETITION

Value Based Selection Method

May 3, 2013

**MULTIPLE SOLAR PHOTOVOLTAIC
FACILITIES**

**UNIVERSITY OF UTAH
SALT LAKE COMMUNITY COLLEGE
UTAH OLYMPIC LEGACY FOUNDATION
UTAH ARMY NATIONAL GUARD**

DFCM Project No. 13055300

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Exhibits A1-A5: Site Identification, Preliminary Layout, Funding Information, Billing Information for each Project:

- Exhibit A1: LAC
- Exhibit A2: HPER-N
- Exhibit A3: Marriott/Tanner
- Exhibit A4: Olympic Oval
- Exhibit A5: Draper CSMS/FMS

- Exhibit B: Installation Requirements
- Exhibit C: Example Solar Power Purchase Agreement
- Exhibit D: Example Solar Site License

Current copies of the DFCM General Conditions dated May 25, 2005, Design Manual, and all Supplemental General Conditions are available upon request at the DFCM office and on the DFCM web site at <http://dfcm.utah.gov> - “Standard Documents” – “Reference Documents” – “Supplemental General Conditions”, and are hereby made part of these contract documents by reference.

The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM’s web site at <http://dfcm.utah.gov>

**NOTICE TO
DESIGN/BUILD/OPERATE/MAINTAIN/FINANCE TEAMS
SINGLE-STAGE COMPETITION**

The State of Utah - Division of Facilities Construction and Management (DFCM) intends to hire a Design/Build/Operate/Maintain/Finance Team (D/B Team) for the following project:

**MULTIPLE SOLAR PV FACILITIES - UNIVERSITY OF UTAH, SALT LAKE COMMUNITY COLLEGE, UTAH OLYMPIC LEGACY FOUNDATION, UTAH ARMY NATIONAL GUARD
DFCM PROJECT NO. 13055300**

This project will include design/build/operations/maintenance/finance via a Power Purchase Agreement (or similar) of five different solar PV systems. DFCM is looking to select the team providing the lowest PPA rate while complying with material specification and all applicable design and code requirements.

The RFP documents will be available at 3:00 PM on Friday, May 3, 2013 on the DFCM web page at <http://dfcm.utah.gov>. For questions regarding this project, please contact John Harrington, DFCM, at 801-652-2888. No others are to be contacted regarding this project.

The D/B Team for this work will be selected by a Value Based Selection RFP method. There will be four **MANDATORY** Pre-Proposal Meetings for all proposers that will be held at various times and locations on Wednesday, May 15, 2013 (See project schedule). All Teams wishing to submit on this project must attend all meetings.

The Response Document to this RFP must be submitted to DFCM at 4110 State Office Building, Salt Lake City, Utah, by the dates and times shown in the Project Schedule.

The Division of Facilities Construction & Management reserves the right to reject any or all proposals or to waive any formality or technicality in any proposal in the interest of the State.

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
4110 State Office Building
Salt Lake City, Utah 84114

DESCRIPTION OF WORK

The scope of this project addresses the construction of five separate solar roof mount photovoltaic energy facilities, as follows:

1. A 350 kW solar PV facility on the roof of the Lifetime Activities Center (LAC) Building at the Taylorsville Redwood Road Campus of Salt Lake Community College (SLCC), 4600 South Redwood Road, Salt Lake City Utah.
2. A 103 kW solar PV roof mount on the HPER-N Building of the main University of Utah Campus, 250 South 1850 East, Salt Lake City, Utah.
3. A (combined) 100-200 kW solar PV roof mount(s) on the Marriott Library and Tanner Humanities Buildings on the main University of Utah Campus, 295 South 1500 East, Salt Lake City, Utah.
4. A 795 kW facility, associated with the Utah Olympic Oval, 5662 Cougar Lane, Salt Lake City, Utah. (Location to be Determined).
5. An approximately 800 kW solar PV facility on the roof of an Utah Army National Guard Building, 12953 South Minuteman Drive, Draper, Utah

DFCM will require the successful proposer to provide the complete installation of the proposed hosted solar electric system with the net metering of the power generated and sale of the electricity to each respective site, each at a mutually agreed rate, guaranteed during the term of the Solar Power Purchase Agreement.

The overall RFP objective is to obtain the lowest PPA rate, lowest escalator, and lowest overall scheduled energy cost, while complying with all required material specifications, codes and legal requirements. The Proposer offering the strongest combination of these variables, with proven capabilities and assured project financing, will achieve the optimal score within this key RFP component. DFCM reserves the right to install solar systems without PPA agreements, terms to be negotiated.

The intent is to award the contracts related to this RFP to one proposer, but DFCM reserves the right to award contracts to multiple proposers. DFCM reserves the right to remove any site for any reason from the scope of work prior to execution of agreements with successful proposer.

Funding sources that have already been secured for these projects are specified in Table 1 below. Incremental funding may, or may not become available. DFCM reserves the right to negotiate the final terms and conditions of the projects as a result of a change in funding availability.

Objectives

DFCM seeks a private sector partner, as a “third-party developer,” to enter into a Solar Power Purchase Agreement (SPPA) and a Site License Agreement (SLA) for each of the solar electric energy generation facilities described above with their respective agencies, which may include high efficiency mono or polycrystalline silicon solar cells, or other mutually agreed solar module technologies, specifically of U.S. manufacture and warranty, with the overall objective to negotiate the best possible 20-year renewable electricity rate for each respective site. Details for each project and Agency can be found in Tables 1 and 2.

Table 1
Project Details for Each Agency

Owner / AGENCY	Salt Lake Community College	University of Utah	University of Utah	Utah Olympic Legacy	Utah Army National Guard
<i>Project Identifier</i>	LAC	HPER-N	Marriott Library & Tanner Humanities	Oval	Draper (Headquarter Building)
<i>Project Description</i>	Roof Mount, Flat Roof, Membrane TPO	Roof Mount, Flat Roof, Membrane TPO	Roof Mount, Flat Roof, Membrane TPO	795 kW Site: to be Determined	Roof Mount, Flat Roof
<i>Address</i>	4600 South Redwood Rd. Salt Lake City, UT 84130	250 S. 1850 E., Salt Lake City, UT 84112	295 S 1500 E, Salt Lake City, UT 84112	5662 Cougar Lane, Salt Lake City, UT 84118	12953 S Minuteman Dr, Draper 84020
<i>(Estimated) Capacity</i>	350 kW	103 kW	100-200 kW	795 kW	~800 kW
<i>Meter#</i>	3907809	35704901	35704901	35704923 35924508	
<i>Account #</i>	08670306 005 2	19238276-001 0	19238276-001 0	31938933 002 UTAH ATHLETIC FOUNDATION, 5602 S 4800 W, KEARNS, UT 84118	
<i>Rate Schedule</i>	8	31M	31M	35704923: Sch.8 35924508: Sch 6	
<i>Incentives, Grants, Funding Available</i>	RMP Incentive, five annual payments of \$52,184	RMP Incentive, five annual payments of \$14,654	RMP Blue Sky Grant \$58,900 associated with Tanner	RMP Incentive, five annual payments of \$112,884	Owner's Funds Available
<i>See Exhibit Number: (For Proposed Design and Specifications)</i>	A1	A2	A3	A4	A5

Table 2
Summary of Agency Specific Requirements (to be made part of the Scope of Work)

LAC (SLCC)	<ul style="list-style-type: none"> • Engineering and permit review: DFCM • DFCM Review fee estimate: 1% (based on actual cost) • Solar build-out to be coordinated with re-roofing project (summer 2013), see Exhibit A1 for more details.
HPER-N (UU) and Tanner/Marriott	<ul style="list-style-type: none"> • The university has very specific roof maintenance requirements. Spacing and module elevation requirements are to allow for very easy physical inspection underneath the solar array. See details in Exhibit A-2, A-3 and B. • Most roofs at the university, are classed as ‘class A’ for fire protection. Fire Code rules stipulate that any roof covering, including solar modules, need to comply with at least the same classification as the roof covering. Solar modules are sometimes classed ‘C’ (a lesser class). Details about this issue for two recent projects have been attached in Exhibit B. Note that a different module supplier and configuration may result in a different opinion on this matter and should be reviewed for each individual project. Proposers should pay special attention to this rule a seek fire code approval at the drawing stage of this project. • The UU in-house engineering department (part of the University Facilities Management) requests that preliminary drawings are submitted for approval prior to contract execution. This allows for modification to be implemented that may affect the price offer to the university. • A 1% fee is due to the University Facilities Management for permitting engineering and code review. • A peer review for the electrical design may be required. • A condition of the PPA will be that the solar system will be code compliant at the time of the ownership hand-over.
Oval – Utah Olympic Legacy	<ul style="list-style-type: none"> • Site license likely to be different entity than PPA holder. • Permitting: TBD (Dependent on Site)
Draper - Utah National Guard	<ul style="list-style-type: none"> • Engineering and permit review: DFCM • DFCM Review fee estimate: 1% (based on actual cost)

The overall objective of this project is for the selected third-party to develop and propose for mutual agreement, the concept, final system design/engineering, system specifications, financing structure and package, materials procurement, construction/installation, operation and maintenance of turn-key, hosted solar electric systems at the location described above, and to sell the solar-generated electricity to the respective Agencies under the terms of the SPPA.

Specific objectives that DFCM seeks to attain while pursuing these goals include the following:

- As soon as possible, commence the installation of the solar electric systems (PV) at each of the locations.
- The newly installed solar PV systems must be installed and generating electricity preferably by November 1, 2013 and no later than July 31, 2014 if partially funded by USIP (RMP Utah Solar Incentive Program).
- Select and contract with a highly qualified solar system owner/developer, with demonstrated experience in outstanding system design, quality installation, ownership, operation and maintenance.
- Select and contract with a solar system owner/developer who is able to fully leverage and monetize any local utility, state and or federal incentives (as appropriate), and any other available incentives or resources, as applicable.
- Purchase electricity through the SPPA at an initial price equal to or below that which is currently paid by the AGENCY (see Exhibits A1- A5 for current (RMP) Utility billing information for each site).
- Purchase electricity with a predictable annual price escalator, allowing known energy cost stability and the potential of significant long term energy cost savings versus projected future utility rates.
- Add long-term economic value by employing thoughtful designs and materials that are of investment grade quality, with the cost-efficient option for long term ownership by AGENCY.
- Be the beneficiary of the produced environmental attributes yielded from the constructed solar system, including carbon offsets, carbon credits, renewable energy credits, green tags or other climate/carbon offset entitlements, or receive a negotiated value therefrom, allowing the third-party “banking” or procurement of same on traded carbon markets to partially offset the proposed and scheduled SPPA rate.
- Receive an annual license fee of \$1.00 per installed kW for the use of its site(s).
- Include solar and renewable energy educational elements for the benefit of AGENCY students and staff and the general public, inclusive of solar information display kiosks at each building. DFCM would prefer the implementation of web-based solar information resources. Design and implementation of such systems to be mutually agreed with each AGENCY.

In the construction/installation of the solar electric system, the selected solar proposer and its subcontractors must comply with pertinent State and Federal requirements as applicable on construction/installation projects, as well as obtaining necessary bonding, as outlined in this RFP and in Section 3.7.3 of the SLA.

All solar projects will need to comply with the International Code Council family of codes and State amendments as approved by the Uniform Building Codes Commission. Design professionals of the proposers are encouraged to contact the building official(s) having jurisdiction, early in the design process. Final construction documents will need to be reviewed and approved for code compliance prior to construction. Construction change orders will generally need to be reviewed for code compliance prior to construction implementation as well as obtain DFCM/AGENCY approval.

The SPPA provides an option for removal of the solar electric systems in accordance with all applicable laws and return of the site to its original condition, less normal wear and tear, at the end of the agreement, and at no cost to AGENCY. The SPPA also gives AGENCY the option to acquire the solar electric system, based upon their fair market value, at any anniversary date of the commencement of the operation of the solar electric systems that occurs after the completion of seven years of operation of the System.

Deliverables

A. Develop Solar Energy Project Final Plans and Specifications: Upon the successful negotiation of the Solar Power Purchase Agreement and Solar Site License with each AGENCY, the successful proposer shall develop final Solar Energy System project plans and specifications, which shall be subject to mutual agreement, regulatory plan check and design review by DFCM, AGENCY any other parties with local jurisdiction. The final plans and specifications shall first be submitted to the DFCM and AGENCY's designated Project Managers and solar specialist consultant for preliminary review.

B. Design and Engineering: The design requires that the PV modules be installed according to the specifications outlined in the provided RFP Exhibits, and in a manner accepted by all parties specific to the final design(s), as developed and proposed by selected

B.1. PV Module, Inverter and Balance of System Plant Component Specifications: The selected proposer shall install PV modules, inverters and all other components to meet the minimum standards outlined in the *Solar Electric Facility Installation Requirements, Exhibit B*.

In addition to requirements noted in the Exhibits, the proposed solar modules must have, at a minimum:

- 1) A 25-year power output performance warranty, with a minimum performance specification of 90% for the initial 10 years, and a progressive scale reaching no less than 80% for the remaining 15 years of the warranty. A linear rather than a stepped or tiered warranty is preferred.
- 2) The module warranty must be "investment grade" and must be offered by a module manufacturer domiciled in the United States, and qualified or capable for qualification as "Made in America."
- 3) A certified power output and material spec close to those specified in the RMP incentive application (at least 265W, PTC, +/- 3%, see Exhibits A1-A3 for more details). All modules shall be factory-tested and certified to meet or exceed name plate power rating, with preference for "plus-sorting" to minimize module mismatch losses and name plate tolerance losses.

In addition to requirements noted in the Exhibits, the grid-tied solar inverters must have, at a minimum:

- 1) 10-year nationwide warranty, with such warranty being "investment grade" and offered by an inverter manufacturer domiciled in the United States, and qualified or capable for qualification as "Made in America."
- 2) Weighted CEC Efficiency of not less than 95.5%.

B.2 PV System Performance Monitoring: The system shall include a performance monitoring system utilizing a software-based, multiple location capable, graphical display to provide real-time monitoring of the output and efficiency of the system for energy production and failure diagnostics. The minimum inputs shall be real-time PV system AC power output (kW) and production (kWh), local ambient temperature, irradiance, access to cumulative historical data for a minimum 365 past days, and accessible by AGENCY dedicated users.

The selected proposer must directly or subcontract a mutually approved subcontractor to design and install one kiosk or information panel with information displaying real-time and historical production and output data, as well as carbon savings and other relevant information about the environmental benefits of the installation. The system designs and type of information displayed shall be mutually agreed upon but may include such elements as the solar electric system and PV design details, the proposer's logo, and or any funding, grant providers and or tax credit providers or offtaker/sponsors. The location will be mutually agreed with each AGENCY.

Once the solar system plans and specifications have been approved by DFCM/AGENCY staff, the plans will be returned to the successful proposer, so they can be submitted to the necessary permitting authorities and agencies, as required, for plan review and issuance of the appropriate permits.

C. Obtain Building and all other needed Permits: The successful proposer must work with all local authorities and agencies, as needed, to ensure that plans and specifications meet relevant land use, building, and all other applicable codes, and must obtain the requisite building and other permits for the solar electric systems prior to construction.

D. Construct the Solar Electric System: All costs associated with the construction of the solar electric system on the AGENCY location, including insurance coverage, shall be the responsibility of the selected proposer. The successful proposer shall furnish all labor, materials, permits, bonding, engineering/design (including all architectural and engineering drawings and specifications, as may be required), transportation, storage, and equipment rental costs to construct the entirety of the solar electric system, in accordance with the final approved plans and specifications. Construction shall include a solar panel cleaning system and plan, the cost of power system components, and the complete installation and commissioning of the solar power system (including tie-ins to the existing utility electric service in accordance with the prevailing net metering and interconnection agreements with Rocky Mountain Power (RMP)/ PacifiCorp.

E. Obtain Intermediate and Final Inspections: The selected proposer shall arrange for all intermediate and final permit-required inspections, including those required by the electrical inspector(s), and all requisite documentation and inspections from RMP or the serving local electric utility, to permit proper connection of the PV system to the building's electrical service, and to obtain the net metering benefits for AGENCY. Final inspection will also be performed by local authorities, as designated by DFCM's Project Manager.

F. Commissioning and Acceptance Testing: During the start-up, DFCM and/or its designee shall observe and verify each system performance requirement. Required commissioning and acceptance test services shall include, but not be limited to:

- a. Starting up the solar electric system until it achieves the mutually agreed performance requirements;
- b. Conducting the performance testing over five (5) consecutive calendar days;
- c. Conducting the successful delivery of power within thirty (30) days following the completion of the system, meeting each system requirement as designed;.
- d. Fulfilling any other noted requirement as specified by DFCM or other local authority or agency.

G. Maintenance and Operation of the System: The selected proposer shall provide on-site operation and maintenance of the entirety of the solar electric system for the term of the Solar Power Purchase Agreement, and shall guarantee the tariff rate in the proposal for the solar-generated electricity (including any mutually agreed escalation clause) for the term of the Solar Power Purchase Agreement, unless or until AGENCY purchases the system, or the system is removed per agreement requirement. Prior to system start-up, the selected proposer shall supply to AGENCY/DFCM two copies of all Component Product Data and Component Operation and Maintenance Manuals. Each Component type must have a separate component ID, a separate 3-ring binder of information, and must be labeled appropriately for content. Additionally, one (1) electronic copy, on suitable media, shall also be provided. Such electronic copy may be directly aggregated PDF files and or images scanned to PDF files and aggregated. The information must be sufficient for AGENCY/DFCM to evaluate and ensure appropriate operation and maintenance is being completed over the life of the system, including repair timelines, detailed Operation and Maintenance procedures, and performance assurance standards and guarantees. Examples of components include PV modules, conduit, inverter, racking, net metering equipment, etc.

The selected proposer must submit to AGENCY/DFCM as-built detail drawings for each constructed system, detailing the location of all above and underground utilities, and all components. Such drawings shall be submitted within thirty days of project start-up, and shall include a set of both electronic and hard copy as-built drawings in AutoCad-Autodesk format, unless otherwise approved by the DFCM. The selected proposer also must submit Component Product Data and Component Operation and Maintenance Manuals meeting these requirements prior to acceptance of the solar electric systems.

H. Monitoring: Monitoring of system performance is a required element of the selected proposer's performance of services. All proposed systems must include an online, turnkey, remote data acquisition and display system available for AGENCY internal and public viewing.

The Performance Monitoring System shall utilize a software-based graphical display to provide real-time monitoring of the output and efficiency of the system for energy production and failure diagnostics. The minimum inputs shall be real-time PV system AC power output (kW) and production (kWh), local ambient temperature, irradiance, access to cumulative historical data for a minimum 365 past days; all accessible by AGENCY directly and through internet connection, free of charge, and with no additional charges for software, software upgrades and or training of AGENCY personnel.

Proposer should consider and include the costs of establishing and maintaining the Performance Monitoring System for the term of the Solar Power Purchase Agreement as a project expense.

This system shall allow monitoring, analysis and display of historical and live solar electricity generation data. The regularly collected data should reflect, but not be limited to, the following:

- a. DC System Size, other relevant system characteristics (summary of system design)
- b. Instantaneous System Output
- c. Local Solar Resource / Solar Radiation
- d. Current Relevant Weather Data
- e. System performance / system output (hourly, daily, monthly, annual, total to date)
- f. Relative climate/carbon offset impacts

Data shall be transmitted via wired or wireless internet to a server managed by the selected proposer or approved subcontractor. The selected proposer shall be responsible for data storage, management and display, and must submit its proposed display formats for approval by DFCM prior to installation. This information shall also be available on the kiosks/information panels, as referred to in this document earlier.

The selected proposer shall provide and maintain, throughout the term of the Solar Power Purchase Agreement, a supply of printed informational material for AGENCY use and distribution. The informational materials shall also be available in electronic format for AGENCY website-based links and download, and shall include photographs of the system and information regarding the nature and intent of the system, the benefits to the public, and such other information as deemed appropriate or necessary by the DFCM/AGENCY. The design of the literature shall be submitted to DFCM/AGENCY for prior approval.

PROCUREMENT PROCESS

The State of Utah intends to enter into an agreement with a firm to provide Design/Build/Operate/Maintain/Finance Services as described. The selection of the D/B Team will be made using a Value Based Selection (VBS) system.

1. Request for Proposals Documents for D/B Team

The Request for Proposals (RFP) for Design/Build/Operate/Maintain/Finance Services consists of all of the documents listed in the Table of Contents and all said documents are incorporated in this RFP by reference. The RFP will be available on the DFCM website as stated on the Project Schedule

2. Contact Information

Except as authorized by the DFCM Representative or as otherwise stated in the RFP or the pre-proposal meeting, communication during the selection process shall be directed to the specified DFCM's Representative. In order to maintain the fair and equitable treatment of everyone, proposers shall not unduly contact or offer gifts or gratuities to DFCM, University of Utah, Salt Lake Community College, Olympic Legacy Foundation, Utah Army National Guard, any Board officer, employee or agent of the State of Utah, users or selection committee members in an effort to influence the selection process or in a manner that gives the appearance of influencing the selection process. This prohibition applies before the RFP is issued as the project is developed, and extends through the award of a contract. Failure to comply with this requirement may result in a disqualification in the selection process. Proposers should be aware that selection committee members will be required to certify that they have not been contacted by any of the proposers in an attempt to influence the selection process.

3. Requests for Information

All requests for information regarding this project shall be in writing and directed to:

John Harrington - DFCM Energy Director
State of Utah
Division of Facilities Construction and Management
State Office Building Suite 4110
Capitol Hill
Salt Lake City, Utah 84114-1160
E-mail: jharrington@utah.gov
Facsimile: 801-538-3267

4. Project Schedule

The Project Schedule lists the important events, dates, times and locations of meetings and submittals. The terms of the project schedule are hereby incorporated by reference and must be met by the selected team.

5. Mandatory Pre-Proposal Meeting

Mandatory pre-submittal meetings will be held on the date and times and at the locations listed on the Project Schedule. A representative from each interested respondent team is required to attend. During the meetings, a presentation will be made to describe the overall scope of work and intended schedule. Interested firms may ask questions and request clarification about the project and the procurement process. Sub-consultants and subcontractors are invited to attend this meeting, but it is not mandatory for them. Respondent's absence from the pre-submittal meetings and/or failure to register precludes participation as a submitting firm on this project.

6. Submittal Due Dates and Times

All required submittals must be delivered to, and be received by DFCM prior to the date and time indicated in the Project Schedule. Submittals received after the specified time will not be accepted. If using a courier service, the D/B Team is responsible for ensuring that delivery will be made directly to the required location. It is your responsibility to allow for the time needed to park on Capitol Hill.

7. Last Day to Submit Questions

All questions must be received at the office of DFCM no later than the time and dated listed in the Project Schedule. Questions must be submitted in writing to John Harrington at DFCM.

8. Response Document

The Response Document should, at the least contain the following:

- A cover sheet that includes the title of this RFP, Project Number, the name and address of the firm, the contact person and the contact person's phone and e-mail.
- Statement of Qualifications
- Management Plan
- Design Proposal
- Cost Proposal
- A section that addresses project viability, including a statement specific to the intended method of project financing and or any project finance partners
- Signature Page

There is no prescribed page limit to the Response document but Proposers are encouraged to keep the Response Document as concise as possible. Five printed copies and two CDs of the Response Document are required.

9. Cost Proposal

Proposer's must take into consideration each AGENCY's goal to purchase electricity through the SPPA at a price equal to or below that which is currently paid, and to purchase such electricity with a predictable annual price escalator, allowing known energy cost stability and the potential for significant long term energy cost savings versus projected future utility rates.

The Cost Proposal must include for each solar system:

- 1) The cost of the energy to AGENCY over a 20-25 year period, broken down by year, and as an aggregated total energy cost. (Please note that proposed kWh energy rates above the current RMP blended rate will be considered but are discouraged. Creative PPA pricing and escalation approaches focused upon meeting stated AGENCY objectives will also be considered).
- 2) Given DFCM/AGENCY stated objectives for lowest possible capital cost at inception, provide the proposed dollar amount of any AGENCY co-payment, if any. (Any tax credits, grants or financial incentives intended within the financing structure shall be included in the cost proposal for informational purposes).
- 3) The total projected kWh produced by the system over a 20-year PPA period.
- 4) Provide the guaranteed kWh rate for each year under the proposed Solar Power Purchase Agreement for the energy generated by the proposer developed solar PV system.
- 5) Provide a breakdown of any early termination fees that would apply in the case that the SPPA is terminated at the request of AGENCY, with all facilities shifting ownership from the System Owner to AGENCY.

If offering more than one option per site, please use the PPA Proposal Matrix format as shown below. Addressing DFCM/AGENCY’s willingness to consider creative PPA structures, proposers may submit up to three (3) different scenarios. Each proposal scenario should address DFCM/AGENCY’s stated RFP objectives, and may include different PPA and escalation rate options, and / or different AGENCY capital requirements.

EXAMPLE

Bidder Proposal Matrix for AGENCY NAME / PROJECT NAME

Scenario #	kW_{DC} PPA	Annual kWh Output (in Year 1)	Rate/kWh PPA (in Year 1)	PPA Escalation Rate	Expected AGENCY Contribution (in addition to RMP funding as reported in Table 1)
1	350 kW	504,594 kWh/yr	\$0.06	2.0%	\$90,000
					\$0
					Other Amount

For each project, the suggested format for the annual projected electricity production, the annual PPA payments and co-payment is as follows:

EXAMPLE

Project Name:				
Client Agency:				
System Size:		kW _{DC}		
Cell Degradation Rate:				
Total Cumulative Savings:				
Scenario #				
Year	kWh Purchased	PPA Payments (including co-payment in Year 0)	Estimated RMP Payment Saved (Assume 6% Annual Increase)	Net Cash Flow
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL				

Similarly, please include a schedule for the termination value and / or buy-out options at the end of each (or certain) contract years.

10. Addenda

All responses to questions and requests for clarification will be in writing and issued as addenda to the Request for Proposals. The addenda will be posted on DFCM's web site <http://dfcm.utah.gov>. It is the responsibility of the Respondent to check this web page from time to time, and to acknowledge receipt of any Addenda on the Cost Proposal Form Response.

11. Past Performance and References

If Proposer has completed project(s) for DFCM in the last five years, please identify the project(s) by name, number and DFCM project manager.

Each Team wishing to compete for this project, that has not completed at least three DFCM projects in the last five years, will be required to provide a list of references on similar projects for a total of **three** projects, providing at least the following information:

Point of Contact:	Person who will be able to answer any customer satisfaction questions.
Phone Number:	Phone number of the contact we will be surveying.
AGENCY Name:	Name of Company / Institution that purchased the solar system.
Project Identifier:	Name of the project.
Address:	Street, city and state where the work was performed.
Date Completed:	Date of when the work was completed.
Size:	Size of project kW _{DC} .
Type:	Type of the project (Roof/Ground Mount/Other)

12. Statements of Qualifications

The Statement of Qualifications is a short document that addresses the selection criteria. It indicates the experience and qualifications of the Team, the project manager, the construction project manager, and other critical members of the team. It describes what talents their team brings to this project, how their knowledge of the subject will provide benefit to the process, how the team has been successful in the past and how that relates to this project. It should include information on similar projects that have been completed by the Team. Include team member experience and special qualifications that are applicable to this project and/or are part of the project specific selection criteria.

13. Design Proposal and System Components

A preliminary layout and one-line diagram should be included in the proposal. There is a strong preference (but no mandate) for American Made system components, whenever possible. When addressing system components please identify:

1. The designated roof-mounted PV system lay-out detail and the proposed mounting method.
2. The make, number and specifications of selected solar modules.
3. The make, number and sizing of the selected grid-tied solar electric (PV) inverters and its/their location.
4. A preliminary one-line diagram, based on general assumptions and information provided during the site visit.
5. Details regarding the monitoring provisions.
6. The PV module and component warranties, with warranty indemnifications, if applicable.
7. Identify Warranty Period of Proposer's System. Identify the length of and provisions of any warranty(ies) provided by the Proposer for the installed components.

14. Management Plan

The Management Plan should demonstrate how the Team is organized, the role of team members, and how the team will work together to achieve the objectives of the project. It should identify decision making authority and point of contact.

The Management Plan should address in a general manner how the Team will accomplish the objectives of the project, mitigate the project risks identified by the Team, and address any other selection criteria not addressed elsewhere in the Team's submittals. It should include a preliminary project schedule indicating how the Team will accomplish the desired completion timeframe.

The Management Plan should be concise yet contain sufficient information for evaluation by the Selection Committee.

15. Time

A Substantial Completion date is December 31, 2013. The RMP Incentive (USIP) requires that work is finished **no later than** July 31, 2014.

16. Proposal Viability

This section pertains to the financial capability of the Proposer, the financial and legal structure and viability of the Project.

Each proposal must include an acknowledgment that the Proposer has reviewed each of the attached Exhibits and shall specifically include an outline of any changes the Proposer believes necessary to the attached Exhibits, including changes to the proposed draft Site License Agreement and draft Power Purchase Agreement. Any proposed modifications to the draft legal document Exhibits, which anticipate substantive changes, must be included in an outline and or a redline version of the draft agreements.

Further, binding conditional proof of project financing, either directly by the Proposer if applicable, or by a third-party project finance entity, will be required prior to the award of this RFP. The Proposer shall include information specific to its intended method of project financing and or any project finance partners.

17. Termination or Debarment Certifications

The general contractor and prime design firm of the Team must submit a certification that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from soliciting work by any governmental department or agency. These firms must also certify that neither the firm nor its principals have been terminated during the performance of a contract or withdrew from a contract to avoid termination. If the firm cannot certify these two statements, the firm shall submit a written explanation of the circumstances for review by DFCM. Teams are to submit these certifications with their Statement of Qualifications.

18. Selection Committee

The Selection Committee may be composed of individuals from DFCM, the AGENCY / Institution, and representatives from the design or construction disciplines.

19. Interviews

Interviews will be conducted with all responsive and responsible Teams except as follows. If more than six Teams submit proposals and meet other requirements, DFCM will convene the Selection Committee to develop a list of proposers to be invited to interviews. This evaluation will be made using the selection criteria noted below. The information provided by the past performance/references, Preliminary Management Plan, Price Proposal and Statement of Qualifications will be the basis for this evaluation.

The purpose of the interview is to allow the Team to present its qualifications, past performance and preliminary management plan and to elaborate on the Price Proposal. It will also provide an opportunity for the Selection Committee to seek clarification of the Team's proposal.

The method of presentation is at the discretion of the Team. The interviews will be held on the date and at the place specified in the Project Schedule.

20. Award of Contract

The selection of the Team will be made using the Value Based Selection system (VBS). The award of the Contract shall be in accordance with the criteria set forth in the Request for Proposals (RFP). The State of Utah intends to enter into an agreement with the prime proposer to construct the project as outlined. Individual proposers or alliances between two or more proposers are allowed in this process. The State will contract with only one legal entity.

21. Contract and Bond

The PPA and SLA will be in the form included in the RFP documents. The contract time will be as indicated in the proposal. The selected proposer, simultaneously with the execution of the contract agreement, will be required to furnish a performance bond-bearing original signatures, upon the forms provided in the RFP. The performance bonds shall be for an amount equal to one hundred percent (100%) of the contract sum for a one year period and secured from a company that meets the requirements specified in the requisite forms. Subcontractors are not required to be bonded unless a specific requirement for such is included in the RFP documents.

22. Licensure

The D/B Team shall comply with and require all of its consultants, sub-consultants, and subcontractors to comply with the license laws as required by the State of Utah.

23. Permitting

The successful proposer must work with all local authorities and agencies, as needed, to ensure that plans and specifications meet relevant land use, building, and all other applicable codes, and must obtain the requisite building and other permits for the solar electric systems prior to construction.

24. Financial Responsibility of Contractors and Subcontractors

Contractors shall respond promptly to any inquiry in writing by DFCM to any concern of financial responsibility of the contractor or subcontractor.

25. Withdrawal of Proposals

Proposals may be withdrawn on written request received from proposer until the notice of selection is issued.

26. Time is of the Essence

Time is of the essence in regard to all the requirements of the contract documents.

27. Right to Reject Proposals

DFCM reserves the right to reject any or all proposals.

28. Administrative Cost Offset Fee Payment to DFCM

All Proposers are informed herewith and acknowledge by the submission of their bid proposal, that as a component of their project cost, the selected Proposer will forward to DFCM promptly upon system commissioning, an administrative cost offset fee equivalent to **\$0.296** per installed Watt for systems under 500 kW and **\$0.254** for systems \geq 500 kW (but under 2,000 kW).

Such administrative cost offset fees will be applied to each project, on a separate, stand-alone basis, with payment tendered to DFCM within ten days of commissioning of each system, respectively.

This administrative fee offsets DFCM's general project development, technical, and RFP related activity costs such as engineering, legal and finance reviews, proposer due diligence, proposer selection and project implementation management.

29. Selection Criteria

The following criteria will be used in arriving at the successful Team. The requirements of the criteria are described in the previous sections. The criteria are not listed in any priority order. The Selection Committee will consider all criteria in performing a comprehensive evaluation of the proposal. The following criteria will be used in ranking each of the construction firms. The firm that is ranked the highest will represent the best value for the State. The selection committee will consider all criteria and determine how much weight to give to each item in performing a comprehensive evaluation of the proposal. Weights have been assigned to each criterion in the form of points.

- A. Design Proposal. (System Components and Design) **15 POINTS**. The D/B Team's design as presented in the drawings and specifications as clarified in the interviews will be evaluated as to how well it meets the objectives of the project.
- B. Schedule. **10 POINTS**. The proposers's schedule will be evaluated as to how well it meets the objectives of the project. Unless other objectives are stated the shorter the construction duration that is evaluated to be feasible while maintaining safety and quality in conformance with the construction documents is preferred. The proposer shall discuss during the interview the project schedule identifying major work items with start and stop dates that are realistic and critical subcontractors and if they have reviewed and agree to the schedule. The overall completion date shown on the schedule will be used in the contract as the contract completion date.

- C. DFCM Past Performance Rating. 15 POINTS. Each proposer will be given a past performance rating. The rating will be based first on how well the firm did on past projects with DFCM. If the DFCM past performance ratings are not available a rating will be established using any DFCM past performance ratings that are available, supplemented by references supplied by the proposer at the time the proposals are submitted.
- D. Strength of Proposer's Team (Team Capabilities and Statement of Qualifications) 15 POINTS Based on the statements of qualifications, the interview, and management plan, the selection team shall evaluate the expertise and experience of the construction firm the project manager and the superintendent as it relates to this project in size, complexity, quality and duration. Consideration will also be given to the portions of the project that the proposer will self perform and the strength brought to the team by critical subcontractors including how they were selected and the success the proposer has had in working with them.
- E. Project Management Approach. 15 POINTS. Based on the information provided in the construction and management plan and information presented in the interview , the selection team shall evaluate how each team has planned the project and determined how to construct the project in the location and in the time frames presented. The proposer should present how they plan to move material and people into and out of each site. Keep the sites safe; minimize disruption to the facilities, etc. The construction firm shall also discuss what portions of the project they plan to self perform. The selection team will also evaluate the degree to which risks to the success of the project have been identified and a reasonable solution has been presented.
- F. Cost (Proposer's offer and terms). 20 POINTS. Up to three cost scenarios may be submitted for each site. Separate PPA contracts will be issued for each Agency and therefore different PPA rates /cost proposals may be submitted for each site or Agency.
- G. Proposal Viability 10 POINTS. This portion of the scoring represents the financial capability of the firm, the financial and legal structure and viability of the project. Further, binding conditional proof of project financing, either directly by the proposer if applicable, or by a third-party project finance entity, will be required prior to the award of this RFP. The proposer shall include information specific to its intended method of project financing and or any project finance partners.

TOTAL POSSIBLE POINTS: 100 POINTS.



Division of Facilities Construction and Management

PROJECT SCHEDULE

PROJECT NAME: MULTIPLE SOLAR PV FACILITIES - UNIVERSITY OF UTAH, SALT LAKE COMMUNITY COLLEGE, UTAH OLYMPIC LEGACY FOUNDATION, UTAH ARMY NATIONAL GUARD				
DFCM PROJECT NO. 13055300				
Event	Day	Date	Time	Place
Request for Proposals Available	Friday	May 3, 2013	3:00 PM	DFCM web site *
Mandatory Pre-Proposal Site Meetings	Wednesday	May 15, 2013	9:30 AM	West Lobby ID REQUIRED Utah Army National Guard HQ 12953 South Minuteman Dr. Draper, UT
			11:00 AM	Room 111 (Conference Room) Gundersen Facilities Svcs Bldg SLCC RRC 4365 South 2200 West SLC, UT
			1:00 PM	East Lobby Kearns Olympic Oval 5662 Cougar Lane SLC, UT
			3:00 PM	Main Lobby - Carolyn Tanner Irish Humanities Building University of Utah 215 S. Central Campus Drive SLC, UT
Last Day to Submit Questions	Tuesday	May 21, 2013	4:00 PM	John Harrington- DFCM E- mail: jharrington@utah.gov
Addendum Issued (exception for bid delay)	Wednesday	May 24, 2013	3:00 PM	DFCM web site *
Response Document	Friday	June 7, 2013	12:00 NOON	DFCM 4110 State Office Bldg SLC, UT
Shorlisting (if necessary)	Thursday	June 13, 2013	4:00 PM	DFCM web site *
Interviews	Monday	June 17, 2013	TBA	TBA
Announcement	Friday	June 21, 2013	4:00 PM	DFCM web site *
Substantial Completion Date	Tuesday	December 31, 2013		

* DFCM's web site address is <http://dfcm.utah.gov>.



Division of Facilities Construction and Management

COST PROPOSAL FORM

NAME OF PROPOSER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Request for Proposals" for the MULTIPLE SOLAR PV FACILITIES - UNIVERSITY OF UTAH, SALT LAKE COMMUNITY COLLEGE, UTAH OLYMPIC LEGACY FOUNDATION, UTAH ARMY NATIONAL GUARD - DFCM PROJECT NO. 13055300 and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to design, finance, install, construct, operate and maintain a solar photovoltaic array as required for the Work in accordance with the Contract Documents, within the time set forth, at the price stated below. This price is to cover all expenses incurred in performing the Work required under this RFP and the Contract Documents.

I/We acknowledge receipt of the following Addenda: _____

The Proposer is responsible for complying with all applicable Utah State Sales and Use Tax exemption requirements.

The Proposer is responsible for payment of all Utah State Sales and Use Tax obligations that arise from the Proposer's failure to comply with exemption requirements. We encourage Proposers to visit www.dsireusa.org for further information. Please note, that this website does not include all information needed to meet this requirement.

Proposers must use due diligence in obtaining all information on tax requirements.

1. Salt Lake Community College - Lifetime Activities Center

IT IS ACCEPTABLE TO COPY THIS FORM IN A WORD DOC OR SPREADSHEET

Bidder Proposal Matrix

kW _{DC} PPA	Annual kWh Output	Rate/kWh PPA	Escalator	SLCC Contribution

I/we agree to perform all Work described in the RFP and other Contract Documents for the sum of:

- Year One: \$ _____
- Year Two: \$ _____
- Year Three: \$ _____
- Year Four: \$ _____
- Year Five: \$ _____
- Year Six: \$ _____
- Year Seven: \$ _____
- Year Eight: \$ _____
- Year Nine: \$ _____
- Year Ten: \$ _____
- Year Eleven: \$ _____
- Year Twelve: \$ _____
- Year Thirteen: \$ _____
- Year Fourteen: \$ _____
- Year Fifteen: \$ _____
- Year Sixteen: \$ _____
- Year Seventeen: \$ _____
- Year Eighteen: \$ _____
- Year Nineteen: \$ _____
- Year Twenty: \$ _____

TOTAL COST: \$ _____

Anticipated use of Grants, Tax Credits and or Financial Incentives (for informational purposes only)

Project Name:		1. Salt Lake Community College – Lifetime Activities Center		
Client Agency:				
System Size:		kW _{DC}		
Cell Degradation Rate:				
Total Cumulative Savings:				
Scenario #				
Year	kWh Purchased	PPA Payments (including co- payment in Year 0)	Estimated RMP Payment Saved (Assume 6% Annual Increase)	Net Cash Flow
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL				

Similarly, please include a schedule for the termination value and / or buy-out options at the end of each (or certain) contract years.

2. University of Utah - HPER-N

IT IS ACCEPTABLE TO COPY THIS FORM IN A WORD DOC OR SPREADSHEET

Bidder Proposal Matrix

kW_{DC} PPA	Annual kWh Output	Rate/kWh PPA	Escalator	UU Contribution

I/we agree to perform all Work described in the RFP and other Contract Documents for the sum of:

- Year One: \$ _____
- Year Two: \$ _____
- Year Three: \$ _____
- Year Four: \$ _____
- Year Five: \$ _____
- Year Six: \$ _____
- Year Seven: \$ _____
- Year Eight: \$ _____
- Year Nine: \$ _____
- Year Ten: \$ _____
- Year Eleven: \$ _____
- Year Twelve: \$ _____
- Year Thirteen: \$ _____
- Year Fourteen: \$ _____
- Year Fifteen: \$ _____
- Year Sixteen: \$ _____
- Year Seventeen: \$ _____
- Year Eighteen: \$ _____
- Year Nineteen: \$ _____
- Year Twenty: \$ _____

TOTAL COST: \$ _____

Anticipated use of Grants, Tax Credits and or Financial Incentives (for informational purposes only)

Project Name:		2. University of Utah - HPER-N		
Client Agency:				
System Size:		kW _{DC}		
Cell Degradation Rate:				
Total Cumulative Savings:				
Scenario #				
Year	kWh Purchased	PPA Payments (including co- payment in Year 0)	Estimated RMP Payment Saved (Assume 6% Annual Increase)	Net Cash Flow
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL				

Similarly, please include a schedule for the termination value and / or buy-out options at the end of each (or certain) contract years.

3. University of Utah - Marriott Library/Tanner Humanities

IT IS ACCEPTABLE TO COPY THIS FORM IN A WORD DOC OR SPREADSHEET

Bidder Proposal Matrix

kW_{DC} PPA	Annual kWh Output	Rate/kWh PPA	Escalator	UU Contribution

I/we agree to perform all Work described in the RFP and other Contract Documents for the sum of:

- Year One: \$ _____
- Year Two: \$ _____
- Year Three: \$ _____
- Year Four: \$ _____
- Year Five: \$ _____
- Year Six: \$ _____
- Year Seven: \$ _____
- Year Eight: \$ _____
- Year Nine: \$ _____
- Year Ten: \$ _____
- Year Eleven: \$ _____
- Year Twelve: \$ _____
- Year Thirteen: \$ _____
- Year Fourteen: \$ _____
- Year Fifteen: \$ _____
- Year Sixteen: \$ _____
- Year Seventeen: \$ _____
- Year Eighteen: \$ _____
- Year Nineteen: \$ _____
- Year Twenty: \$ _____

TOTAL COST: \$ _____

Anticipated use of Grants, Tax Credits and or Financial Incentives (for informational purposes only)

Project Name:		3. University of Utah – Marriott Library/Tanner Humanities		
Client Agency:				
System Size:		kW _{DC}		
Cell Degradation Rate:				
Total Cumulative Savings:				
Scenario #				
Year	kWh Purchased	PPA Payments (including co- payment in Year 0)	Estimated RMP Payment Saved (Assume 6% Annual Increase)	Net Cash Flow
0				
1				
2				
3				
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8				
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12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL				

Similarly, please include a schedule for the termination value and / or buy-out options at the end of each (or certain) contract years.

4. Utah Olympic Legacy Foundation

IT IS ACCEPTABLE TO COPY THIS FORM IN A WORD DOC OR SPREADSHEET

Bidder Proposal Matrix

kW _{DC} PPA	Annual kWh Output	Rate/kWh PPA	Escalator	CLIENT Contribution

I/we agree to perform all Work described in the RFP and other Contract Documents for the sum of:

- Year One: \$ _____
- Year Two: \$ _____
- Year Three: \$ _____
- Year Four: \$ _____
- Year Five: \$ _____
- Year Six: \$ _____
- Year Seven: \$ _____
- Year Eight: \$ _____
- Year Nine: \$ _____
- Year Ten: \$ _____
- Year Eleven: \$ _____
- Year Twelve: \$ _____
- Year Thirteen: \$ _____
- Year Fourteen: \$ _____
- Year Fifteen: \$ _____
- Year Sixteen: \$ _____
- Year Seventeen: \$ _____
- Year Eighteen: \$ _____
- Year Nineteen: \$ _____
- Year Twenty: \$ _____

TOTAL COST: \$ _____

Anticipated use of Grants, Tax Credits and or Financial Incentives (for informational purposes only)

Project Name:		4. Utah Olympic Legacy Foundation		
Client Agency:				
System Size:		kW _{DC}		
Cell Degradation Rate:				
Total Cumulative Savings:				
Scenario #				
Year	kWh Purchased	PPA Payments (including co- payment in Year 0)	Estimated RMP Payment Saved (Assume 6% Annual Increase)	Net Cash Flow
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL				

Similarly, please include a schedule for the termination value and / or buy-out options at the end of each (or certain) contract years.

5. Utah Army National Guard Headquarters, Draper

IT IS ACCEPTABLE TO COPY THIS FORM IN A WORD DOC OR SPREADSHEET

Bidder Proposal Matrix

kW_{DC} PPA	Annual kWh Output	Rate/kWh PPA	Escalator	National Guard Contribution

I/we agree to perform all Work described in the RFP and other Contract Documents for the sum of:

- Year One: \$ _____
- Year Two: \$ _____
- Year Three: \$ _____
- Year Four: \$ _____
- Year Five: \$ _____
- Year Six: \$ _____
- Year Seven: \$ _____
- Year Eight: \$ _____
- Year Nine: \$ _____
- Year Ten: \$ _____
- Year Eleven: \$ _____
- Year Twelve: \$ _____
- Year Thirteen: \$ _____
- Year Fourteen: \$ _____
- Year Fifteen: \$ _____
- Year Sixteen: \$ _____
- Year Seventeen: \$ _____
- Year Eighteen: \$ _____
- Year Nineteen: \$ _____
- Year Twenty: \$ _____

TOTAL COST: \$ _____

Anticipated use of Grants, Tax Credits and or Financial Incentives (for informational purposes only)

Project Name:		5. Utah Army National Guard – Draper Headquarters		
Client Agency:				
System Size:		kW _{DC}		
Cell Degradation Rate:				
Total Cumulative Savings:				
Scenario #				
Year	kWh Purchased	PPA Payments (including co- payment in Year 0)	Estimated RMP Payment Saved (Assume 6% Annual Increase)	Net Cash Flow
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL				

Similarly, please include a schedule for the termination value and / or buy-out options at the end of each (or certain) contract years.

I/We guarantee that the Work will be Substantially Complete by **December 31, 2013**, should I/we be the successful proposer.

This bid shall be good for 60 days after bid opening.

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within thirty (60) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance Bond in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Proposer

ADDRESS:

Authorized Signature

PERFORMANCE BOND
(Title 63, Chapter 56, U. C. A. 1953, as Amended)

That _____ hereinafter referred to as the "Principal" and _____, a corporation organized and existing under the laws of the State of _____, with its principal office in the City of _____ and authorized to transact business in this State and U. S. Department of the Treasury Listed (Circular 570, Companies Holding Certificates of Authority as Acceptable Securities on Federal Bonds and as Acceptable Reinsuring Companies); hereinafter referred to as the "Surety," are held and firmly bound unto the State of Utah, hereinafter referred to as the "Obligee, " in the amount of _____ DOLLARS (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Contract with the Obligee, dated the _____ day of _____, 20____, to construct _____ in the County of _____, State of Utah, Project No. _____, for the approximate sum of _____ Dollars (\$ _____), which Contract is hereby incorporated by reference herein.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform the Contract in accordance with the Contract Documents including, but not limited to, the Plans, Specifications and conditions thereof, the one year performance warranty, and the terms of the Contract as said Contract may be subject to Modifications or changes, then this obligation shall be void; otherwise it shall remain in full force and effect.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the state named herein or the heirs, executors, administrators or successors of the Owner.

The parties agree that the dispute provisions provided in the Contract Documents apply and shall constitute the sole dispute procedures of the parties.

PROVIDED, HOWEVER, that this Bond is executed pursuant to the Provisions of Title 63, Chapter 56, Utah Code Annotated, 1953, as amended, and all liabilities on this Bond shall be determined in accordance with said provisions to the same extent as if it were copied at length herein.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this ____ day of _____, 20_____.

WITNESS OR ATTESTATION:

PRINCIPAL:

By: _____ (Seal)

Title: _____

WITNESS OR ATTESTATION:

SURETY:

By: _____ (Seal)
Attorney-in-Fact

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____, personally appeared before me _____, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who, being by me duly sworn, did say that he/she is the Attorney in-fact of the above-named Surety Company and that he/she is duly authorized to execute the same and has complied in all respects with the laws of Utah in reference to becoming sole surety upon bonds, undertakings and obligations, and that he/she acknowledged to me that as Attorney-in-fact executed the same.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires: _____
Resides at: _____

NOTARY PUBLIC

Agency: _____
Agent: _____
Address: _____
Phone: _____

Approved As To Form: May 25, 2005
By Alan S. Bachman, Asst Attorney General

EXHIBIT A1



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

SLCC Redwood Taylorsville Campus

LAC Building

- Site Identification
- System Location and Preliminary Lay-out
- RMP Billing Statement
- RMP Incentive Paperwork

DFCM Project No. 13055300

Issue Date: April 30, 2013

Disclaimer

The intent of this exhibit is to estimate the potential solar power generation capacity of the Lifetime Activities Center roof and to give guidance to potential bidders with respect to the available space, the obstacles that may cause shading and electrical infrastructure.

A structural analysis has NOT been carried out.

This report is NOT intended to serve as a detailed engineering design document. It should be noted that detailed structural and electrical design is still a requirement and a full design package is expected for submittal to the client and the various permitting agencies.

While the recommendations in this report have been reviewed for technical accuracy and are believed to be reasonably accurate, the findings are estimates and actual results may vary. As a result, BacGen is not liable if estimated production estimates are not actually achieved. All production and cost estimates in the report are for informational purposes, and are not to be construed as a design document or as guarantees.

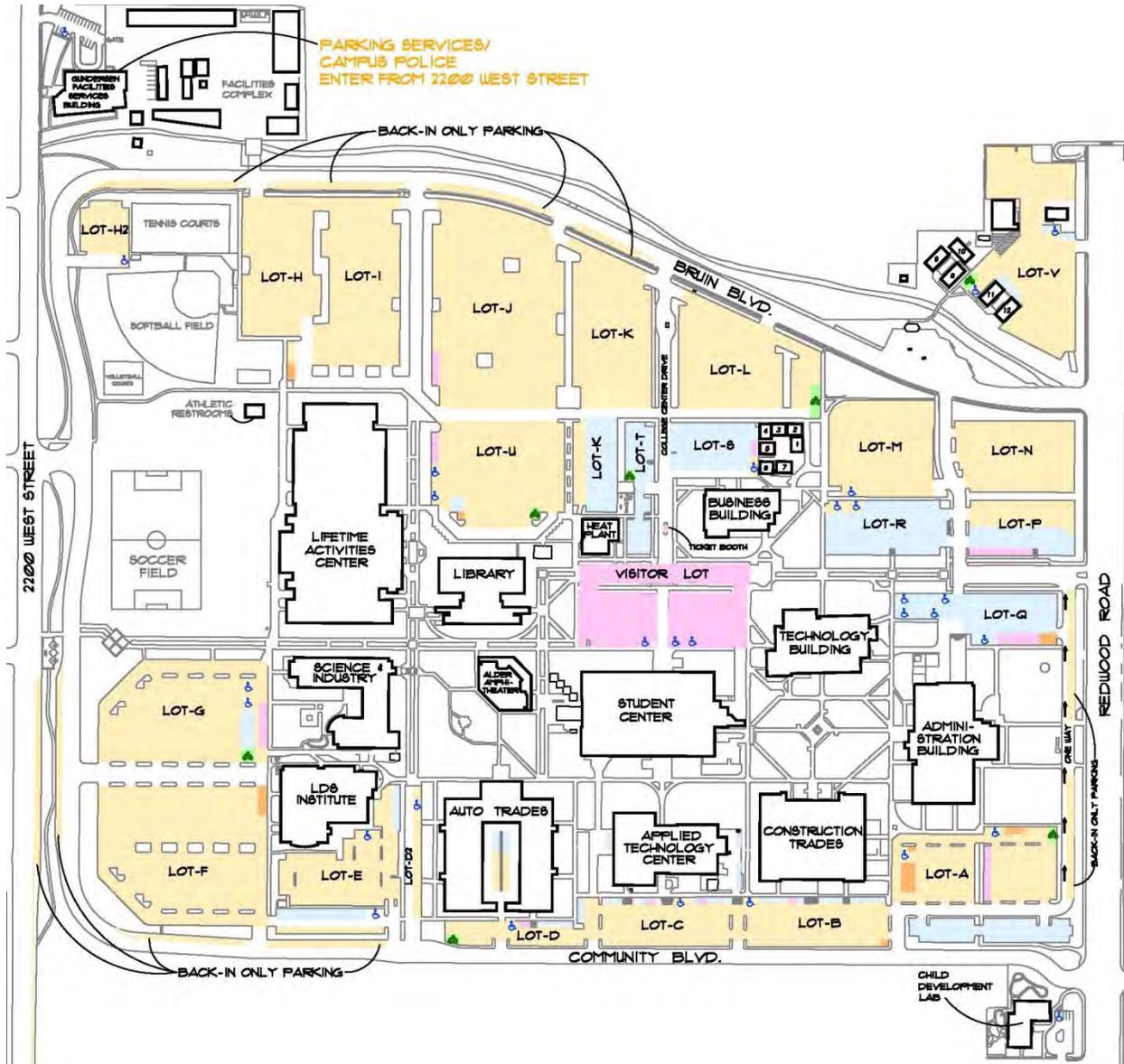
The customer should independently evaluate any advice or direction provided in this exhibit. In no event will BacGen or its associates be liable for the failure of the customer to achieve a specified electricity production, the operation of customer's facilities, or any incidental or consequential damages of any kind in connection with this exhibit or the installation of recommended projects.

The Taylorsville Redwood Campus

4600 S Redwood Road
Salt Lake City, UT 84130

Phone: 801-957-4111

<http://www.slcc.edu/locations/taylorsville-redwood-campus.aspx>



The Lifetime Activities Center (LAC) – 350 kW Solar Array

The Life Time Activities Center is the largest building on the Redwood campus. It has several flat roof parts with membrane decking, and has relatively few obstacles.



Figure 1 Lower Roof, LAC



Figure 2 Upper Roof, LAC

Figures 1 and 2 show several views of the LAC roof, showing few obstacles and low shading impact. Figure 4 shows a preliminary solar capacity analysis and preliminary PV module pay-out of the roof parts. Conservatively, the roof could support a 350 kW solar facility.

Figure 3 shows the location of Meter #3907809, the primary meter for the Redwood campus. It was recently relocated and is now by the substation as shown in the aerial photograph.

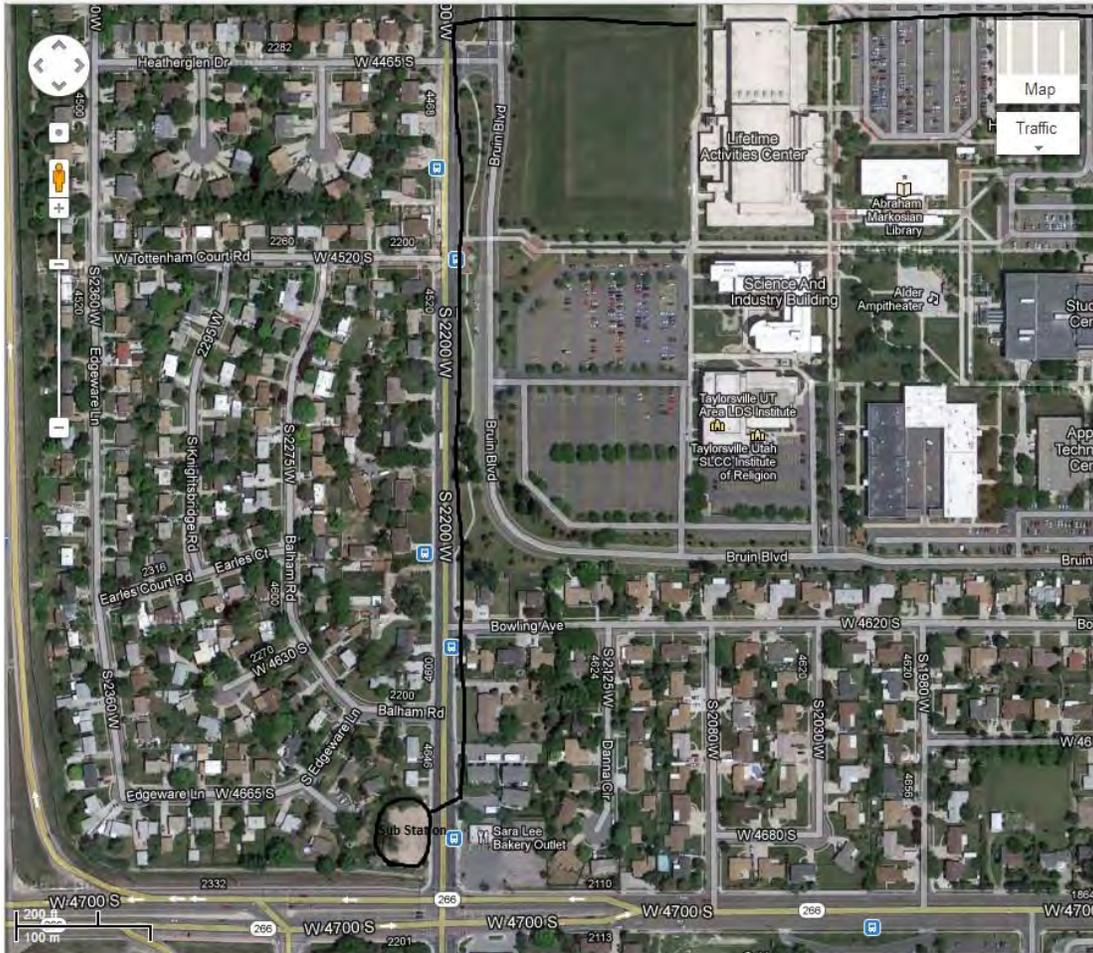


Figure 3 Meter Identification (Meter # 3907809), now Located at the Substation as Marked

Electrical Infrastructure and Roof Plan

Please note the following:

- The building supply is 480V/ 3 phase.
- There is a single meter at the campus. It is located at the recently installed substation (see Figure 3).
- The main electrical panel is located in room #132 which is located in the northwest quadrant of the building. There appears to be room for the inverter in that room and relatively easy access for conduit from the roof along the outside wall of the building.

- There is a stand by generator in service at the building.
- The roof plan and building electrical one-line diagram are attached (caution: both need to be verified as they appear to be out of date).

Special Note with Respect to Re-Roofing Project, Summer 2013

The roof of the LAC building is due for re-roofing in the summer of 2013. The following applies to the re-roofing and the solar projects:

The roof project will be done prior to the installation of the solar modules. The solar contractor will commence after completion of the re-roofing project.

- There is a preference that the racking system have round tubular stand-offs, although subject to racking supplier upholding roof warranties and complying with all other requirements listed below, DFCM will consider other viable racking system proposals.
- The bottoms of the tubing be filled with closed cell foam to help minimize the thermal bridging.
- All racking system open ends be capped and water tight to prevent rust and water intrusion below the membrane.
- Require that the solar contractor and roofing contractor coordinate location of walkoff pads.
- All work on the roof must meet NRCA standards
- All work of the roof must not violate the roofing membrane warranty and comply with SLCC and DFCM standards.
- All flashings and repair work to be performed by the original roofing contractor as to not violate the roof warranty.
- Any exposed ferrous metal be “hot dipped galvanized” with no field painting. Aluminum would also be a suitable support material



Figure 4

Billing Statement For Redwood Campus



Questions about your bill: Call toll free 1-866-870-3419 www.rockymountainpower.net

BILLING DATE: **Jun 28, 2010** ACCOUNT NUMBER: **08670306-005 2** DATE DUE: **Jul 21, 2010** AMOUNT DUE: **\$107,136.81**

ITEM 5 - ELECTRIC SERVICE

4600 S Redwood Rd Taylorsville UT
Main Campus (slcc) Utah General Service, Large Schedule 8

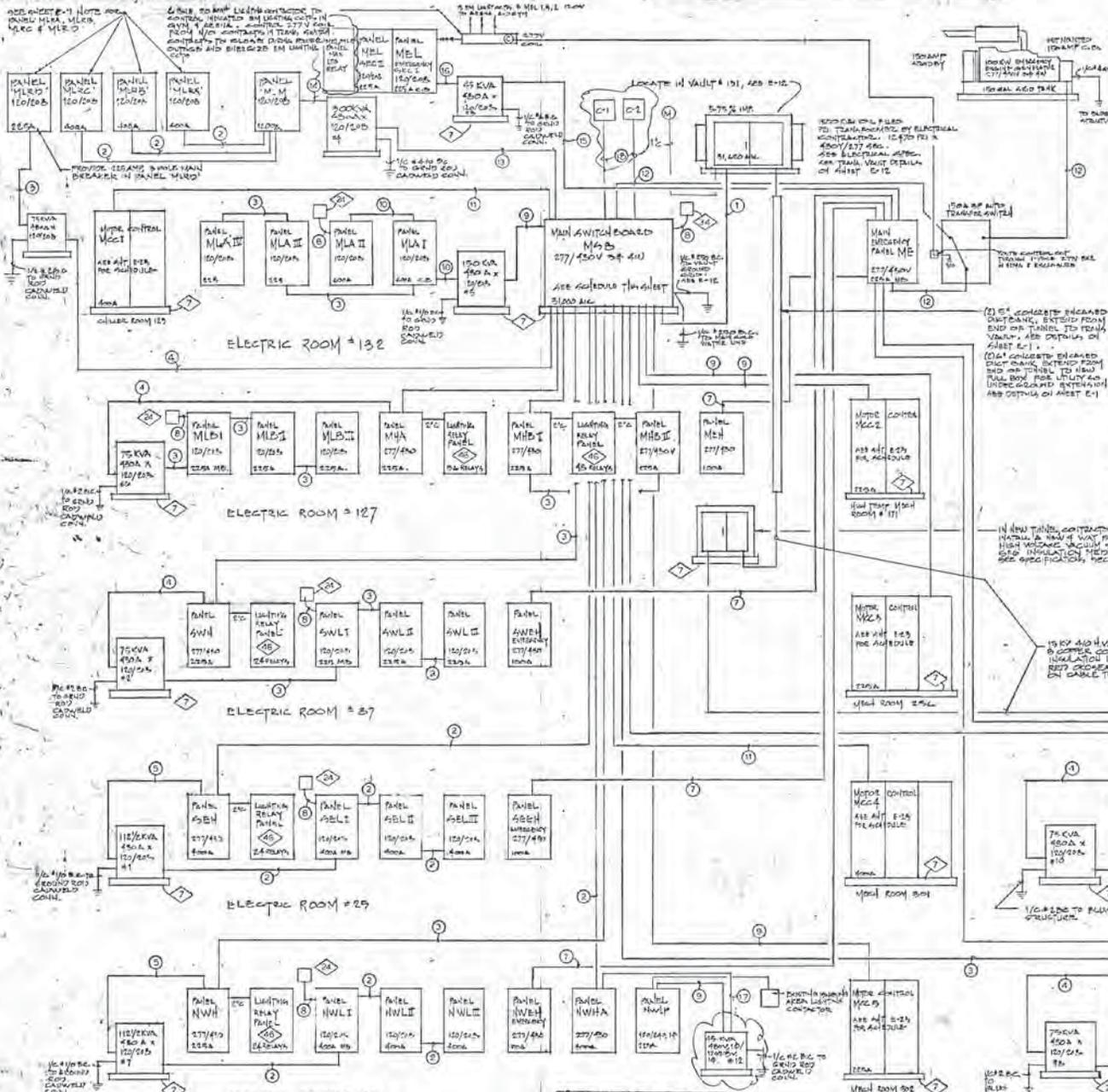
METER NUMBER	SERVICE PERIOD From To	ELAPSED DAYS	METER READINGS		METER MULTIPLIER	AMOUNT USED THIS MONTH
			Previous	Current		
3907809	May 26, 2010 Jun 25, 2010	30	37166	37566	1,200.0	480,000 onkwh
3907809	May 26, 2010 Jun 25, 2010	30	39828	40634	1,200.0	967,200 offkwh
3907809	May 26, 2010 Jun 25, 2010	30	26901	27325	1,200.0	508,800 kvarh
3907809	Demand Jun 25, 2010			3.048	1,200.0	3,658 onkw
3907809	Demand Jun 25, 2010			2.985	1,200.0	3,582 offkw

Next scheduled read date: 07-28. Date may vary due to scheduling or weather.

NEW CHARGES - 06/10

	UNITS	COST PER UNIT	CHARGE
Basic Charge - 3P			
for 18 day(s)			33.00
for 12 day(s)			10.80
On Peak Demand Charge			
for 18 day(s)	3,658 onkw	12.3300000	27,061.88
for 12 day(s)	3,658 onkw	12.0700000	17,660.82
Facilities Charge			
for 18 day(s)	3,658 kw	3.7700000	8,274.40
for 12 day(s)	3,658 kw	3.6900000	5,399.21
Energy Charge - On Peak			
for 18 day(s)	288,000 onkwh	0.0400210	11,526.05
for 12 day(s)	192,000 onkwh	0.0391890	7,524.29
Energy Charge - Off Peak			
for 18 day(s)	580,320 offkwh	0.0269870	15,661.10
for 12 day(s)	386,880 offkwh	0.0264260	10,223.69
Voltage Discount, Onkw			
for 18 day(s)	3,658 onkw	-0.9000000	-1,975.32
for 12 day(s)	3,658 onkw	-0.8800000	-1,287.62
Percent Rate Adjustment for 12 day(s)		0.0220000	880.99
Customer Efficiency Services		0.0460000	4,643.68
Self Direction Credit		-0.0460000	-4,643.68
Home Electric Lifeline Program			50.00
Municipal Energy Sales/use Tax		0.0600000	6,059.60
Total New Charges			107,102.89

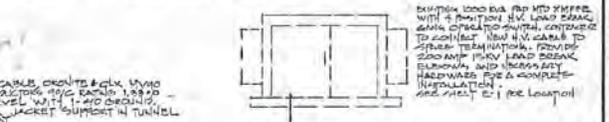
144,720.00
7240
44,722.70
13,673.61
44,935.13
-3,262.94



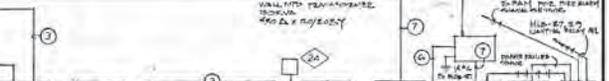
MAIN SWITCH BOARD 'MSB' 1 LINE DISTRIBUTION

SECTION	DESIGN SIZE	FRAME	POLE	APPROX EQUIP. PROVIDED	COMMENTS
1	2000 A.	PF	3	MAIN BREAKERS	CONDUITS TO BE PROVIDED WITH GROUND FAULT PROTECTION
2	600 A.	LC	3	CHILLER C-1	
3	600 A.	LC	3	CHILLER C-2	
4	400 A.	LC	3	MOTOR CONTROL CENTER MCG4	
5	400 A.	LC	3	" " " MCG1	
6	400 A.	LC	3	PANEL MSH	
7	400 A.	LC	3	" NWA	
8	225 A.	KC	3	MOTOR CONTROL CENTER MCG2	
9	225 A.	KC	3	" " " MCG3	
10	225 A.	KC	3	" " " MCG5	
11	225 A.	KC	3	PANEL MVA	
12	225 A.	KC	3	" MHA	
13	225 A.	KC	3	" MHB	
14	225 A.	KC	3	" ANH	
15	225 A.	KC	3	" NWH	
16	225 A.	KC	3	" ESH	
17	150 A.	KC	3	" ME	MAIN EMERGENCY OUT PANEL
18	225 A.	KC	3	" ZWH	
19	450 A.	LC	3	MVA (BREAKERS)	
20	400 A.	LC	3	MVA BREAKER	
21	225 A.	KC	3	"	
22	225 A.	KC	3	"	
23	125 A.	KC	3	PANEL 'MLD'	
24	100 A.	FC	3	ELEVATOR	
25	100 A.	FC	3	"	
26	30 A.	FC	3	TVSS	
27	100 A.	FC	3	ATDMS BREAKER	

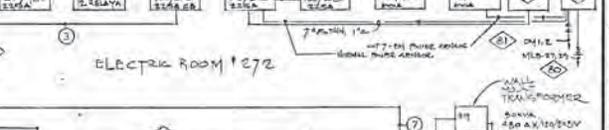
NOTE: BALANCE OF DISTRIBUTION SECTION TO BE 225A 3P 4W ONLY. MAIN MSB TO BE 2000 AMP 277/480V 3P 4W FRAME. ALL MAIN BUS ENCL. ENCLOSED. BREAKER FOR 200,000 A.C.I. MISTAKE TO BE AS OUTLINED IN SECTION 16.400 200/K. PROVIDE FEED AND DISCONNECT FOR TVSS ROOM 410B.



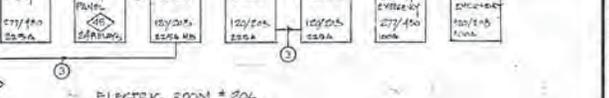
15KV 410 HV CABLE ROUTE & CLK. MVA TO BE CONNECTED TO 15KV 410V BUS IN VENT. PROVIDE VACUUM SWITCH WITH 5000 INCHES MERCURY. SEE SPECIFICATIONS SECTION 16.400. BEST GENERAL JACKET SUPPORT IN TUNNEL ON CABLE TRAY.



30 KVA TRANSFORMER #11. PROVIDE 1000 BUS BAR WITH 3P 4W WITH A PORTION HV LOAD DRAWN. WITH 4P CONTROL. CONTROLS TO BE CONNECTED WITH 4W CABLE TO SPREAD TRANSFORMATION. PROVIDE 500 AMP HV LOAD DRAWN. ELIMINATE AND INCREASE BY HANDWIRE FIRE & COMPLETE INSTALLATION. SEE SHEET E-1 FOR LOCATION.



ELECTRIC ROOM #272. 75 KVA 480A X 120/208V #10. 277/480V 3P 4W. 150/208V 3P 4W. 120/208V 3P 4W. 120/208V 3P 4W. 277/480V 3P 4W. 150/208V 3P 4W. 120/208V 3P 4W.



ELECTRIC ROOM #204. 75 KVA 480A X 120/208V #10. 277/480V 3P 4W. 150/208V 3P 4W. 120/208V 3P 4W. 120/208V 3P 4W. 277/480V 3P 4W. 150/208V 3P 4W. 120/208V 3P 4W.

PANEL RISER DIAGRAM

- 1 3 #10 THRU, 3/4" CONDUIT.
- 2 3 #10 CU THRU, 1 #2 GROUND, 3" CONDUIT.
- 3 3 #10 CU THRU, 1 #2 GROUND, 3 1/2" CONDUIT.
- 4 3 #10 CU THRU, 1 #2 GROUND, 2 1/2" CONDUIT.
- 5 3 #10 CU THRU, 1 #2 GROUND, 3" CONDUIT.
- 6 3 #10 CU THRU, 1 #2 GROUND, 3 1/2" CONDUIT.
- 7 3 #10 CU THRU, 1 #2 GROUND, 2" CONDUIT.
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- 99 3 #10 CU THRU, 1 #2 GROUND, 2" CONDUIT.
- 100 3 #10 CU THRU, 1 #2 GROUND, 2" CONDUIT.

TOTAL CONNECTED LOAD - 2247 KW @ 480V 3P/4W = 2725 AMPS
 A. LIGHTING LOAD 350 KW @ 100% = 350 KW DEMAND
 B. MECHANICAL 1200 KW @ 60% = 720 KW DEMAND
 C. DATA/MISC 675 KW @ 35% = 235 KW DEMAND
 TOTAL ESTIMATED DEMAND LOAD = 1305

ASTLE/ERICSON & ASSOC.
 ARCHITECTURE AND PLANNING
 138 SO. MAIN, STE. 2200, SALT LAKE CITY, UT 84111
 TELEPHONE: (801) 533-8887 FAX: (801) 533-8895

LIFETIME ACTIVITIES CENTER
SALT LAKE COMMUNITY COLLEGE
 SALT LAKE CITY, UTAH

DATE: 6-17-90
 SHEET NO: 1-21

Utah Solar Solutions Reservation Application

Program Administrator	Rocky Mountain Power
Preparation Date	01/25/13

HOST CUSTOMER

Company Name	Salt Lake Community College
Contact Person Name	Ezra Nielsen
Contact Person Title	Energy Manager
Mailing Address	P.O. Box 30808
City, State, Zip	Salt Lake City, UT 84130-8409
Email	Ezra.Nielsen@slcc.edu
Business Phone	(801) 403-7185
Business Phone	(801) 595-4102

APPLICANT

Company Name	BacGen
Contact Person Name	Maud de Bel
Contact Person Title	
Mailing Address	4015 Beach Drive SW
City, State, Zip	Seattle, WA 98116
Email	maud@bacgen.com
Business Phone	(206) 932-2382
Mobile Phone	(206) 459-9418

INSTALLER: Same as Applicant

PROJECT SITE INFORMATION

Host Customer Sector	Large Non-Residential		
Project Site			
Site Address	Lifetime Activities Center (LAC), SLCC, Taylorsville Redwood Campus / 4600 South Redwood Road		
City, State, Zip	Salt Lake City, UT 84130		
County	Salt Lake		
Electric Utility Service			
Service Account Number	08670306 005 1	Meter Number	3907809
Annual Usage	17,509,596 kWh/yr		

Reservation Request Form

Program Administrator	Rocky Mountain Power
Reservation Number	
Preparation Date	01/25/13

EQUIPMENT INFORMATION

PV Modules							
Array	Tilt	Azimuth	Manufacturer	Model Number	Model Rating	Quantity	Array Rating
1	15.0°	180.0°	SolarWorld	SW265 Mono	236.2 W-ptc	1320	311,784.0 W-ptc
Shading Obstruction Angles:		East: -60°: -30°: South: +30°: +60°: West:					
Inverters							
Array	Manufacturer	Model Number	Model Rating	Quantity	Efficiency		

1	Advanced Energy Industries	Solaron 333kW (3159000-XXXX)	333,000 W-AC	1	97.5%
CEC-AC System Rating					
97.5% x (311.7840 kW)					303.989 kW
System Orientation					
<input checked="" type="checkbox"/> Fixed <input type="checkbox"/> Single-Axis Tracking <input type="checkbox"/> Dual-Axis Tracking					
Energy Production					
Estimated Annual Energy Production					504,594 kWh/yr

PROJECT INCENTIVE CALCULATION		
CEC-AC System Rating	303.989 kW CEC-AC	Calculated above
Design Factor	95.813%	
Incentive Level	\$800.00 per kW	
Requested Incentive	\$260,921.95	Incentive Amount: Incentive Rate x System Size CSI-AC $\$0.80 \times 291,261 \text{ W} = \$233,008.80$ Annual Payment: Incentive Amount x 0.223958868 $\$233,008.80 \times 0.223958868 = \$52,184.39$ Annual Payment Total Payment: Annual Payment x 5 $\$52,184.39 \times 5 = \$260,921.95$

TERMS AND CONDITIONS

- 1. PROPERTY RIGHTS:** Rocky Mountain Power (RMP) (RMP includes RMP's legal assigns and successors in interest), requires that the Customer who purchases the solar electric system (System) own the System, the real property, and improvements where the System will be located (Installation address). The Customer (Customer includes customer's legal assigns and successors in interest) hereby represents and warrants that he/she owns the property listed as the Installation Address in this form.
- 2. SYSTEM OPERATION:** RMP has calculated the incentive amount that your System will be eligible to receive based upon the assumption that the System will operate continuously for a period of twenty (20) years from the date the System is inspected and approved. Customer agrees that it will not remove the System from service or the property during this time period without the prior consent of RMP, and such consent shall not be unreasonably withheld. In addition, if Customer determines to sell the property where the System is located during this time period, Customer will notify RMP prior to the sale so that RMP and Customer can work together to inform the new property owner about the System.
- 3. INCENTIVE RESERVATION:** Funding for RMP incentives is limited and available on a lottery basis based on submitted applications and written approval by RMP. RMP will reserve the estimated incentive amount set forth in this form until the annual deadline after RMP notifies the Customer that this application has been approved by RMP. If the System is not installed, inspected and approved by RMP by the annual deadline, the reserved incentives will immediately be withdrawn. In addition, if the Customer and the Electrical Contractor (herein referred to as the Parties) decide to make a material change to the System from the design submitted in the approved form prior to the annual deadline, the Customer will be required to submit a new application.
- 4. INCENTIVE PAYMENT:** Customer agrees that the RMP incentives provided may vary from amounts listed in this form. RMP will pay incentive amounts directly to Customer within sixty (60) days after the installation is approved by RMP. Customer is advised to retain a copy of this application and any accompanying documentation submitted to RMP. RMP will not be responsible for any lost documentation related to this application.
- 5. ENERGY INFORMATION RELEASE:** Customer authorizes RMP to access energy usage data for the project's specified electric accounts at the physical address of the project. Customer agrees to provide other reasonable assistance to RMP to obtain such information.
- 6. INFORMATION RELEASE:** Customer agrees that RMP may include Customer's project identifier, location, RMP services, incentives and resulting energy generation in reports or other documentation provided to the RMP or PacifiCorp Energy or Pacific Power, the Utah Public Service Commission or similar organizations. RMP will treat all other information gathered as confidential and report it only in the

aggregate unless otherwise ordered by a court of law.

7. **TAX LIABILITY** : The Parties agree that RMP is not responsible for any tax liability which may be imposed as a result of payment of any incentives. RMP is not providing tax advice, and any communication by RMP is not intended or written to be used, and cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code.

8. **ACCESS AND EVALUATION**: RMP may request access to the property where the System is installed in order to: (i) read or check on the operation of the meter(s), (ii) inspect and review the project during and after completion, and/or (iii) evaluate the operation of the System. Customer agrees to provide reasonable access to the property for the purposes as described herein. In addition, RMP may contact Customer from time to time via a telephone call or a mail to request meter information directly from Customer and Customer agrees to provide RMP meter information to RMP.

9. **DISCLAIMER OF WARRANTIES**: CUSTOMER HEREBY ACKNOWLEDGES THAT RMP HAS NOT MADE ANY REPRESENTATIONS AND HAS SPECIFICALLY DISCLAIMED ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SYSTEM TO BE INSTALLED OR THE ELECTRICAL CONTRACTOR, INCLUDING BUT NOT LIMITED TO THOSE CONCERNING ELECTRICAL CONTRACTOR'S EXPERIENCE, QUALIFICATION, OR BACKGROUND, THE AMOUNT OF ANY ENERGY SAVINGS, IF ANY, TO BE REALIZED BY CUSTOMER FROM USE OF THE SYSTEM, THE QUALITY OF SPECIFIC MATERIALS, COMPONENTS, OR WORKMANSHIP UTILIZED IN THE INSTALLATION, OR THE NATURE OF OR WHETHER BUILDING PERMIT(S) OR GOVERNMENTAL APPROVAL(S) MAY BE REQUIRED.

10. **LIMITATION OF LIABILITY** : THE PARTIES AGREE THAT RMP'S LIABILITY TO CUSTOMER IS LIMITED TO RECOVERY OF AMOUNTS DUE FOR THE INCENTIVE PAYMENT DESCRIBED AND THAT UNDER NO CIRCUMSTANCES WILL RMP BE LIABLE TO CUSTOMER OR ELECTRICAL CONTRACTOR FOR ANY FURTHER AMOUNT WHATSOEVER.

11. **WAIVER OF CONSTRUCTION LIEN AGAINST CUSTOMER**: ELECTRICAL CONTRACTOR HEREBY WAIVES ITS RIGHT TO PERFECT OR FORECLOSE ANY LIEN OR ENCUMBRANCE AGAINST CUSTOMER'S PROPERTY (INCLUDING WITHOUT LIMITATION CLAIMS OF CONSTRUCTION LIEN UNDER UTAH'S CONSTRUCTION LIEN LAW) FOR THE AMOUNT OF THE INCENTIVE PAYMENT DUE OR ALLEGED TO BE DUE TO ELECTRICAL CONTRACTOR BY RMP.

12. **FACSIMILE/ SCANNED SIGNATURES**: Facsimile transmission of any signed original document, and the retransmission of any signed facsimile transmission, shall be the same as delivery of the original signed document. Scanned original documents transmitted to RMP as an attachment via electronic mail shall be the same as delivery of the original signed document. At the request of RMP, a Party shall confirm documents with a facsimile transmitted signature or a scanned signature by providing an original document.

13. **RENEWABLE ENERGY CERTIFICATES**: Renewable Energy Credits, or "RECs," are all renewable energy certificates, offsets, or other benefits allocated, assigned or otherwise awarded or certified to the Customer or RMP by any governmental authority in connection with the System, including credits, offsets or other benefits attributable to the System. RECs (as defined herein) may also be referred to as "green tags", "environmental attributes", "tradable renewable certificates" or otherwise. RECs do not include any energy, capacity, reliability or other power attributes associated with the generation of electricity, or any liabilities associated with such generation, and do not include any tax credits which may accrue as a result of implementing the System. "RECs" includes the non-energy environmental and/or social characteristics, credits, benefits, reductions, offsets, and/or allowances, howsoever entitled, attributable to the System, including without limitation any avoided emissions of substances to air, soil, or water, such as nitrous oxide (NOx), carbon monoxide (CO), mercury (Hg), carbon dioxide (CO2), methane (CH4), or other greenhouse gases (GHGs) designated by the United Nations Intergovernmental Panel on Climate Change, and any other pollutant that is now or may be in the future regulated and tradable, whether or not such legislation, regulation or trading program is ever implemented.

14. **OWNERSHIP OF RENEWABLE ENERGY CERTIFICATES**: In consideration for payment of the incentive, Customer hereby transfers to RMP a portion of the RECs (and any benefits derived from RECs) produced at Customer's System during the ensuing twenty years equal to the incentive payment as a percentage of total system costs as shown on page (1) one of this form and further described in this paragraph. Upon receipt of any such RECs, Customer shall promptly use all commercially reasonable efforts to execute all documents, including documents transferring such RECs to RMP, without further compensation in order to ensure such RECs are vested in RMP. The quantity of RECs attributable to Customer's installation shall equal the net energy generated at the system, as measured on the RMP side of the inverter. In order to document actual production of RECs, Customer is required to complete and submit the Attestation Form by March 1 of the following year. [The portion of total RECs transferred to

Rocky Mountain Power shall be in the same proportion as RMP's total incentive payment to the Estimated PV System Installed Total Cost (as shown on page 1 of this form) with such costs being those allocated to the equipment and installation costs up to the size caps (in kW) specified in the version of Utah Schedule 107 on file with the Utah Public Service Commission at the time the project application was approved by RMP ("percentage ownership").

By submitting this application, applicant and all parties involved with the application agree to comply with the terms and conditions stated above.

EXHIBIT A2



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

University of Utah

HPER-N #92

- Site Identification
- System Location and Preliminary Lay-out
- RMP Billing Statement
- RMP Incentive Paperwork

DFCM Project No. 13055300

Issue Date: April 30, 2013

Disclaimer

The intent of this exhibit is to estimate the potential solar power generation capacity of the HPER roof and to give guidance to potential bidders with respect to the available space, the obstacles that may cause shading and electrical infrastructure.

A structural analysis has NOT been carried out.

This report is NOT intended to serve as a detailed engineering design document. It should be noted that detailed structural and electrical design is still a requirement and a full design package is expected for submittal to the client and the various permitting agencies.

While the recommendations in this report have been reviewed for technical accuracy and are believed to be reasonably accurate, the findings are estimates and actual results may vary. As a result, BacGen is not liable if estimated production estimates are not actually achieved. All production and cost estimates in the report are for informational purposes, and are not to be construed as a design document or as guarantees.

The customer should independently evaluate any advice or direction provided in this exhibit. In no event will DFCM, BacGen or its associates be liable for the failure of the customer to achieve a specified electricity production, the operation of customer's facilities, or any incidental or consequential damages of any kind in connection with this exhibit or the installation of recommended projects.

HPER-N Building #92 – 103 kW Solar Array

College of Exercise and Sport Science, Department of Health

250 S 1850 E

SALT LAKE CITY, UT 84112

Phone 801-581-7558

<http://www.utah.edu/>

HPER North (**Figure 1**) is a sports building. It stands in connection with HPER East via a basement corridor. This building has a 106' x 120' high roof part. The lower perimeter roof is not so suitable for solar because of shading from trees (if the trees can be trimmed, removed and/or topped, additional solar capacity is created on the south west lower roof). On the higher roof south side there are a number of obstacles. There is a three degree slope from the middle outwards for drainage. The roofing material is PVC and about 5 years old.

Figure 2 shows the recently installed array on HPER-E.



Figure 1 Bird's Eye View of HPER North



Figure 2 HPER-N Building (in Top Left Corner) with HPER-E and Existing Array on Right

Electrical and Structural Evaluation

The building supply voltage is 3 phase / 480 V. The engineering drawings of the building are very old. The single line diagrams are poor quality but included below for information. The electrical room (Room 104) is in the building basement. There is no room there for an inverter.

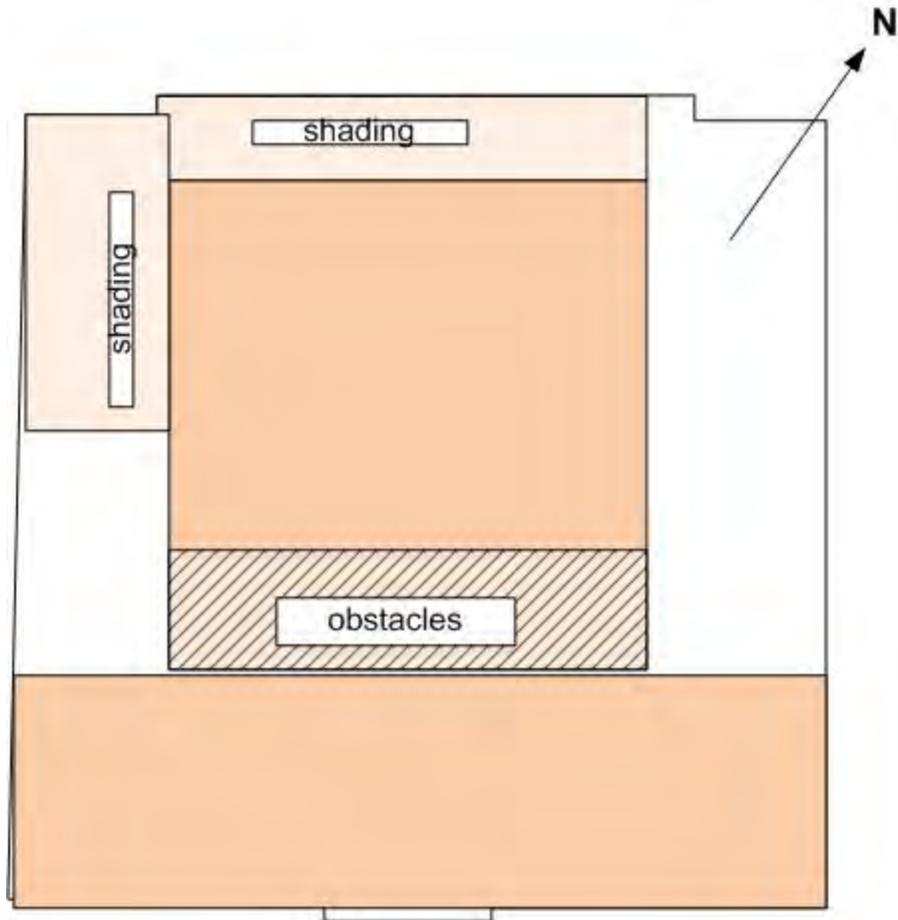


Figure 3 'Spare' Dead Load (at least 6 PSF) on Roof HPER-N as Marked Pink

Figure 3 shows that on the higher and south lower roof parts, there is at least 6 PSF 'spare' dead load.

The following should be noted:

- The roof deck is white PVC, about 5 years old
- Solar access is near 100% on the higher roof part and some areas of the lower roof, but there is shading impact near the south and west edge where there are trees.
- The high roof is 100" above the lower roof.
- The high roof has many obstacles on the south side. About 30' offset should be taken into account from the south edge.
- There is a slight 3 degree slope from the middle towards the perimeter for drainage.
- On the lower roof, side areas should be avoided for solar build-out, as indicated in Figure 3.



Figure 4 Obstacles and Solar Access on the HPER-N Roof



Figure 5 HPER-N Top Roof Looking South



Figure 6 HPER N from Top Roof Facing West

Figure 7 shows that the total roof capacity of HPER N could be about **390** modules, resulting in a total installed DC capacity of **around 100 kW** (30 strings).

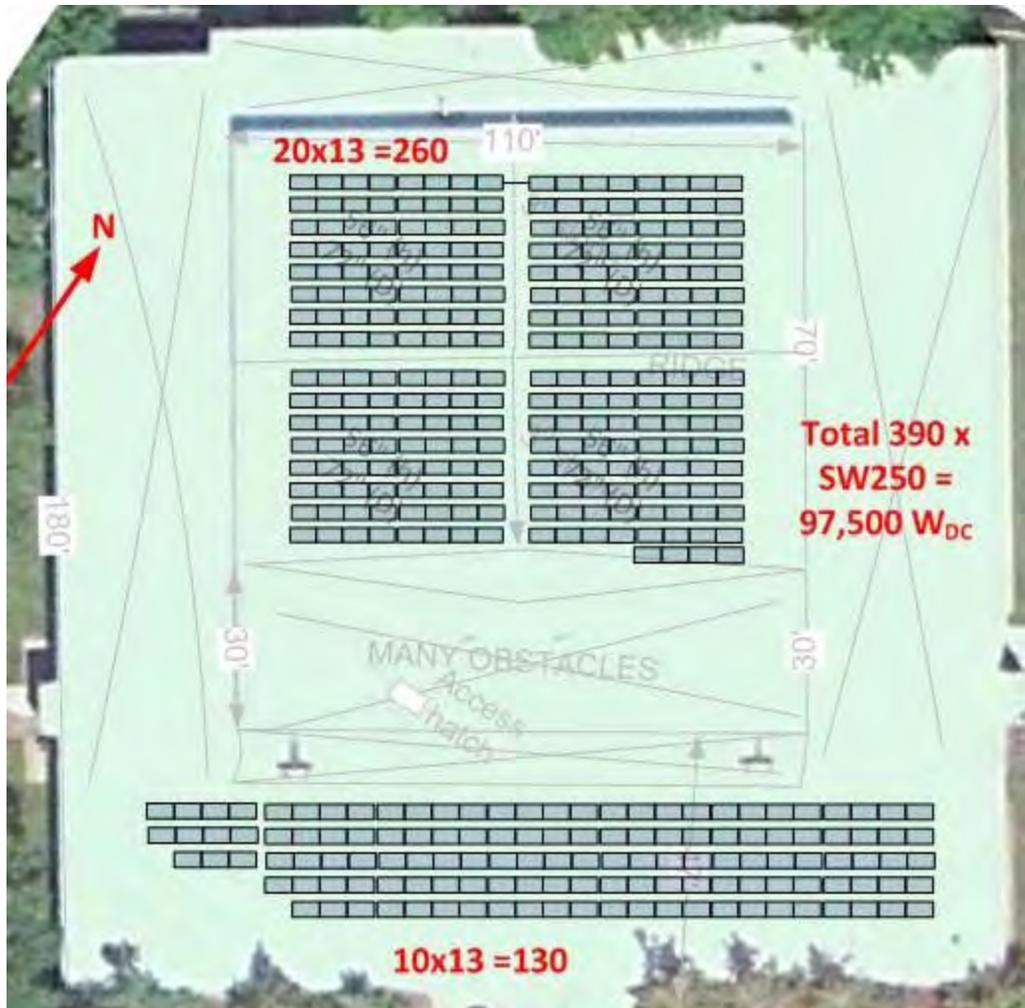


Figure 7 Estimated Total Potential Roof Capacity of HPER N Building

HPER-E Solar Array Configuration

Recently a solar array was installed on the roof of the HPER-E building. The racking system for that array had specific requirements, which will be the same for the HPER-N solar array, as follows.

Solar PV Systems Mounted on University roofs must:

1. Be Structurally Attached (no ballasted systems). Bearing points are allowed, but system must be attached to structure and engineered for seismic and wind loading.
2. Maintain Roof Warranty:
 - a. All roof penetrations to have manufacturer-approved flashings, and manufactured flashings are preferred over field fabricated. Also, membranes around penetrations shall mechanically terminate 8" inches minimum above the roof membrane, unless otherwise approved by the University.
 - b. Any bearing pads must allow ease of visual inspection under the pad and have both roof manufacturer and University approval.
 - c. Paths to equipment shall be maintained or redirected if an obstruction through the path results from the installation of the panels.
 - d. Provide written documentation that roof warranty(s) will not be compromised by the installation or maintenance of the PV system.

Roof Installation and Maintenance Plan: Parameter Sketch

3. Racking systems must allow ease of visual inspection of roof membranes, and access to roof surface for repair. The following specifications are acceptable.
 - a. Panels installed with 12" or greater clearance above the roof surface, shall allow 24" aisles between each row of panels, permitting access for hands-and-knees roof surface inspection.
 - b. There shall be a 30" minimum aisle width to all roof equipment and roof penetrations (HVAC equipment, drains, vents, etc.). Subject to specific equipment requirements, design must ensure that clearance requirements for maintenance on rooftop systems will be maintained.
 - c. Where high rack-to-roof clearances, e.g., 24+", may be impractical due to cost, structural or architectural issues, or where very low profile/tilt angle will be necessary for building aesthetics, the University will consider other reasonable options, as long as such proposals specifically allow for expedient ease of visual roof inspection and access to structural attachments and bearing points with minimal tools.

If adequate roof surface clearance permitting hands and knees inspection is allowed within the design, no point under an array shall be greater than 15' from any aisle/access point. Please see sketch below:

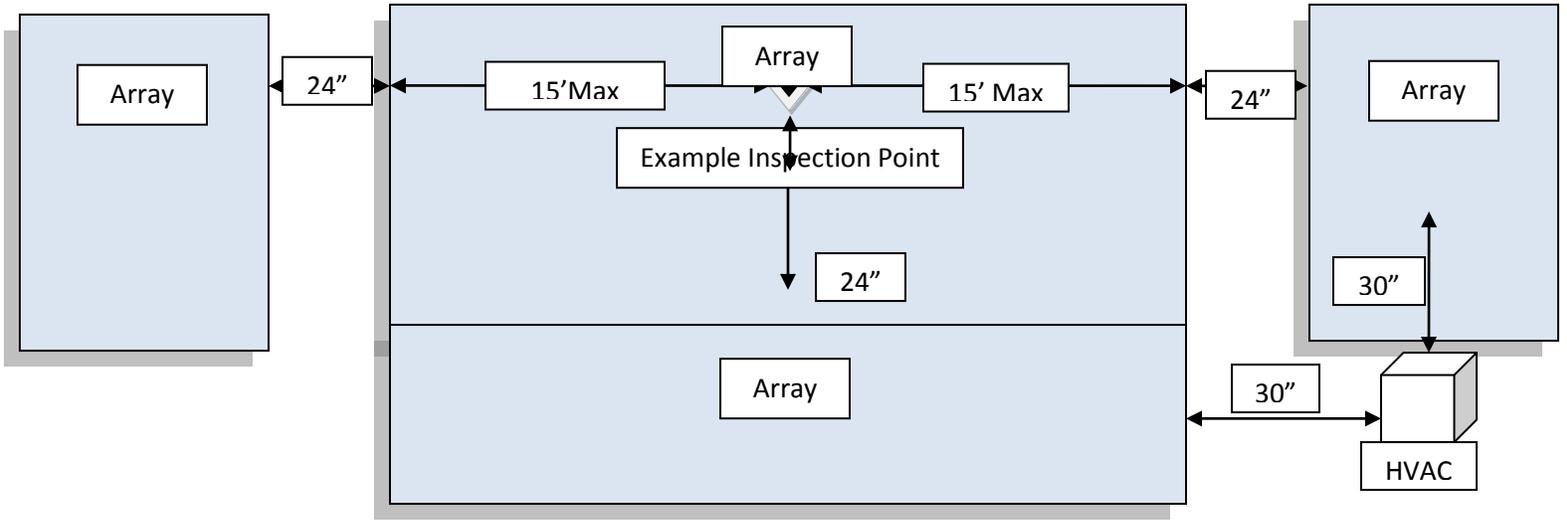




Figure 9 Example of Module Configuration, Racking and Spacing



Figure 10 HPER-E Solar Array (West Roof)



Figure 11 HPER-E Solar Array and Conduit Configuration



Figure 12 HPER-E Solar Array with HPER-N Building in Background

Billing Information

Meter Name	Utility Meter 1	Rate Schedule	Address	Utility Account #
Stadium Substation	35704901	31M	1400 E 200 South	19238276-001 0

Utah Solar Solutions Reservation Application	
Program Administrator	Rocky Mountain Power
Preparation Date	01/28/13

HOST CUSTOMER	
Company Name	University of Utah
Contact Person Name	Myron Willson
Contact Person Title	Director, Sustainability Office
Mailing Address	Annex D Wing, Room 1024 / 1901 E. South Campus Dr.
City, State, Zip	Salt Lake City, UT 84112
Email	myron.willson@sustainability.utah.edu
Business Phone	(801) 585-3173

APPLICANT	
Company Name	BacGen
Contact Person Name	Maud de Bel
Contact Person Title	
Mailing Address	4015 Beach Drive SW
City, State, Zip	Seattle, WA 98116
Email	maud@bacgen.com
Business Phone	(206) 932-2382
Mobile Phone	(206) 459-9418

INSTALLER: Same as Applicant

PROJECT SITE INFORMATION			
Host Customer Sector	Large Non-Residential		
Project Site			
Site Address	HPER North #92 / University of Utah Campus		
City, State, Zip	Salt Lake City, UT 84112		
County	Salt Lake		
Electric Utility Service			
Service Account Number	19238276-001 0	Meter Number	35704901
Annual Usage	15,000,000 kWh/yr		

Reservation Request Form	
Program Administrator	Rocky Mountain Power
Reservation Number	
Preparation Date	01/28/13

EQUIPMENT INFORMATION							
PV Modules							
Array	Tilt	Azimuth	Manufacturer	Model Number	Model Rating	Quantity	Array Rating
1	10.0°	150.0°	SolarWorld	SW265 Mono	236.2 W-ptc	390	92,118.0 W-ptc
Shading Obstruction Angles:		East:	-60°:	-30°:	South:	+30°:	+60°: West:
Inverters							
Array	Manufacturer	Model Number	Model Rating	Quantity	Efficiency		
1	Advanced Energy Industries	AE 100TX-480	100,000 W-AC	1	96.0%		

CEC-AC System Rating	
96.0% x (92.1180 kW)	88.433 kW
System Orientation	
<input checked="" type="checkbox"/> Fixed <input type="checkbox"/> Single-Axis Tracking <input type="checkbox"/> Dual-Axis Tracking	
Energy Production	
Estimated Annual Energy Production	141,698 kWh/yr

PROJECT INCENTIVE CALCULATION		
CEC-AC System Rating	88.433 kW CEC-AC	Calculated above
Design Factor	92.489%	
Incentive Level	\$800.00 per kW	
Requested Incentive	\$73,271.30	Incentive Amount: Incentive Rate x System Size CSI-AC $\$0.80 \times 81,791 \text{ W} = \$65,432.80$ Annual Payment: Incentive Amount x 0.223958868 $\$65,432.80 \times 0.223958868 = \$14,654.26$ Annual Payment Total Payment: Annual Payment x 5 $\$14,654.26 \times 5 = \$73,271.30$

TERMS AND CONDITIONS

- PROPERTY RIGHTS:** Rocky Mountain Power (RMP) (RMP includes RMP's legal assigns and successors in interest), requires that the Customer who purchases the solar electric system (System) own the System, the real property, and improvements where the System will be located (Installation address). The Customer (Customer includes customer's legal assigns and successors in interest) hereby represents and warrants that he/she owns the property listed as the Installation Address in this form.
- SYSTEM OPERATION:** RMP has calculated the incentive amount that your System will be eligible to receive based upon the assumption that the System will operate continuously for a period of twenty (20) years from the date the System is inspected and approved. Customer agrees that it will not remove the System from service or the property during this time period without the prior consent of RMP, and such consent shall not be unreasonably withheld. In addition, if Customer determines to sell the property where the System is located during this time period, Customer will notify RMP prior to the sale so that RMP and Customer can work together to inform the new property owner about the System.
- INCENTIVE RESERVATION:** Funding for RMP incentives is limited and available on a lottery basis based on submitted applications and written approval by RMP. RMP will reserve the estimated incentive amount set forth in this form until the annual deadline after RMP notifies the Customer that this application has been approved by RMP. If the System is not installed, inspected and approved by RMP by the annual deadline, the reserved incentives will immediately be withdrawn. In addition, if the Customer and the Electrical Contractor (herein referred to as the Parties) decide to make a material change to the System from the design submitted in the approved form prior to the annual deadline, the Customer will be required to submit a new application.
- INCENTIVE PAYMENT:** Customer agrees that the RMP incentives provided may vary from amounts listed in this form. RMP will pay incentive amounts directly to Customer within sixty (60) days after the installation is approved by RMP. Customer is advised to retain a copy of this application and any accompanying documentation submitted to RMP. RMP will not be responsible for any lost documentation related to this application.
- ENERGY INFORMATION RELEASE:** Customer authorizes RMP to access energy usage data for the project's specified electric accounts at the physical address of the project. Customer agrees to provide other reasonable assistance to RMP to obtain such information.
- INFORMATION RELEASE:** Customer agrees that RMP may include Customer's project identifier, location, RMP services, incentives and resulting energy generation in reports or other documentation provided to the RMP or PacifiCorp Energy or Pacific Power, the Utah Public Service Commission or similar organizations. RMP will treat all other information gathered as confidential and report it only in the aggregate unless otherwise ordered by a court of law.
- TAX LIABILITY:** The Parties agree that RMP is not responsible for any tax liability which may be

imposed as a result of payment of any incentives. RMP is not providing tax advice, and any communication by RMP is not intended or written to be used, and cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code.

8. ACCESS AND EVALUATION: RMP may request access to the property where the System is installed in order to: (i) read or check on the operation of the meter(s), (ii) inspect and review the project during and after completion, and/or (iii) evaluate the operation of the System. Customer agrees to provide reasonable access to the property for the purposes as described herein. In addition, RMP may contact Customer from time to time via a telephone call or a mail to request meter information directly from Customer and Customer agrees to provide RMP meter information to RMP.

9. DISCLAIMER OF WARRANTIES: CUSTOMER HEREBY ACKNOWLEDGES THAT RMP HAS NOT MADE ANY REPRESENTATIONS AND HAS SPECIFICALLY DISCLAIMED ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SYSTEM TO BE INSTALLED OR THE ELECTRICAL CONTRACTOR, INCLUDING BUT NOT LIMITED TO THOSE CONCERNING ELECTRICAL CONTRACTOR'S EXPERIENCE, QUALIFICATION, OR BACKGROUND, THE AMOUNT OF ANY ENERGY SAVINGS, IF ANY, TO BE REALIZED BY CUSTOMER FROM USE OF THE SYSTEM, THE QUALITY OF SPECIFIC MATERIALS, COMPONENTS, OR WORKMANSHIP UTILIZED IN THE INSTALLATION, OR THE NATURE OF OR WHETHER BUILDING PERMIT(S) OR GOVERNMENTAL APPROVAL(S) MAY BE REQUIRED.

10. LIMITATION OF LIABILITY : THE PARTIES AGREE THAT RMP'S LIABILITY TO CUSTOMER IS LIMITED TO RECOVERY OF AMOUNTS DUE FOR THE INCENTIVE PAYMENT DESCRIBED AND THAT UNDER NO CIRCUMSTANCES WILL RMP BE LIABLE TO CUSTOMER OR ELECTRICAL CONTRACTOR FOR ANY FURTHER AMOUNT WHATSOEVER.

11. WAIVER OF CONSTRUCTION LIEN AGAINST CUSTOMER: ELECTRICAL CONTRACTOR HEREBY WAIVES ITS RIGHT TO PERFECT OR FORECLOSE ANY LIEN OR ENCUMBRANCE AGAINST CUSTOMER'S PROPERTY (INCLUDING WITHOUT LIMITATION CLAIMS OF CONSTRUCTION LIEN UNDER UTAH'S CONSTRUCTION LIEN LAW) FOR THE AMOUNT OF THE INCENTIVE PAYMENT DUE OR ALLEGED TO BE DUE TO ELECTRICAL CONTRACTOR BY RMP.

12. FACSIMILE/ SCANNED SIGNATURES: Facsimile transmission of any signed original document, and the retransmission of any signed facsimile transmission, shall be the same as delivery of the original signed document. Scanned original documents transmitted to RMP as an attachment via electronic mail shall be the same as delivery of the original signed document. At the request of RMP, a Party shall confirm documents with a facsimile transmitted signature or a scanned signature by providing an original document.

13. RENEWABLE ENERGY CERTIFICATES: Renewable Energy Credits, or "RECs," are all renewable energy certificates, offsets, or other benefits allocated, assigned or otherwise awarded or certified to the Customer or RMP by any governmental authority in connection with the System, including credits, offsets or other benefits attributable to the System. RECs (as defined herein) may also be referred to as "green tags", "environmental attributes", "tradable renewable certificates" or otherwise. RECs do not include any energy, capacity, reliability or other power attributes associated with the generation of electricity, or any liabilities associated with such generation, and do not include any tax credits which may accrue as a result of implementing the System. "RECs" includes the non-energy environmental and/or social characteristics, credits, benefits, reductions, offsets, and/or allowances, howsoever entitled, attributable to the System, including without limitation any avoided emissions of substances to air, soil, or water, such as nitrous oxide (NOx), carbon monoxide (CO), mercury (Hg), carbon dioxide (CO2), methane (CH4), or other greenhouse gases (GHGs) designated by the United Nations Intergovernmental Panel on Climate Change, and any other pollutant that is now or may be in the future regulated and tradable, whether or not such legislation, regulation or trading program is ever implemented.

14. OWNERSHIP OF RENEWABLE ENERGY CERTIFICATES: In consideration for payment of the incentive, Customer hereby transfers to RMP a portion of the RECs (and any benefits derived from RECs) produced at Customer's System during the ensuing twenty years equal to the incentive payment as a percentage of total system costs as shown on page (1) one of this form and further described in this paragraph. Upon receipt of any such RECs, Customer shall promptly use all commercially reasonable efforts to execute all documents, including documents transferring such RECs to RMP, without further compensation in order to ensure such RECs are vested in RMP. The quantity of RECs attributable to Customer's installation shall equal the net energy generated at the system, as measured on the RMP side of the inverter. In order to document actual production of RECs, Customer is required to complete and submit the Attestation Form by March 1 of the following year. [The portion of total RECs transferred to Rocky Mountain Power shall be in the same proportion as RMP's total incentive payment to the Estimated PV System Installed Total Cost (as shown on page 1 of this form) with such costs being those allocated to the equipment and installation costs up to the size caps (in kW) specified in the version of Utah Schedule

107 on file with the Utah Public Service Commission at the time the project application was approved by RMP ("percentage ownership").

By submitting this application, applicant and all parties involved with the application agree to comply with the terms and conditions stated above.

EXHIBIT A3



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

University of Utah

Marriott Library #86 Tanner Humanities #45

- Site Identification
- System Location and Preliminary Lay-out
- RMP Billing Statement
- RMP Incentive Paperwork

DFCM Project No. 13055300

Issue Date: April 30, 2013

Disclaimer

The intent of this exhibit is to estimate the potential solar power generation capacity of the Marriott Library & Carolyn Tanner Humanities roofs and to give guidance to potential bidders with respect to the available space, the obstacles that may cause shading and electrical infrastructure.

A structural analysis has NOT been carried out.

This report is NOT intended to serve as a detailed engineering design document. It should be noted that detailed structural and electrical design is still a requirement and a full design package is expected for submittal to the client and the various permitting agencies.

While the recommendations in this report have been reviewed for technical accuracy and are believed to be reasonably accurate, the findings are estimates and actual results may vary. As a result, BacGen is not liable if estimated production estimates are not actually achieved. All production and cost estimates in the report are for informational purposes, and are not to be construed as a design document or as guarantees.

The customer should independently evaluate any advice or direction provided in this exhibit. In no event will DFCM, BacGen or its associates be liable for the failure of the customer to achieve a specified electricity production, the operation of customer's facilities, or any incidental or consequential damages of any kind in connection with this exhibit or the installation of recommended projects.

Marriott Library #86 (100-200 kW Solar Array)



Figure 1 Marriott Library

The Marriott Library (**Figure 1**) is an architecturally eye catching and prestigious building on the campus. Solar capacity build-out is earmarked for the two penthouses only. The penthouses were among a recent large upgrade of the building (about 4 years ago). At that time, the roof deck was renewed. The lower roof parts have a partial overhang and are deemed less suitable for solar build-out.

4.2 Structural and Electrical Evaluation

- The building supply is 480 V / 3 ph.
- The main electrical rooms are right under the penthouses with excellent access to the main panels and ample room for the inverters.
- The preliminary structural evaluation showed that the lower roof perimeter has an overhang and is probably not suitable for solar-build-out.
- For the structural evaluation, drawings were made available from a recent upgrade. It was not possible to verify the dead load allowance for certain roof parts as they were not subject of the structural upgrade. ***For the purpose of solar capacity calculation, it has been assumed that the entire penthouse roofs are available (i.e. this is expressly still subject to structural analysis).***

Figure 4 shows the main obstacles and shading on the Marriott penthouses (also see **Figure 5** and **Figure 6**).

- There are two 7' stacks (one on the south side of each roof).
- There is an antenna on the northwest roof.
- The nearby high-rise building does not shade the Marriott penthouse.
- In the southwest corner of the penthouse, there is a 'mini' penthouse which is 79" higher than the rest of the penthouse roof. Therefore in **Figure 24** it has been marked that an offset of about 16' should be considered from the south edge of the penthouse.

- The roofing material is black EPDM and in good condition.
- Solar access is near 100 % on the penthouse, except around the stacks.
- Roof access is via a (non-permanent) ladder.
- The parapet is 15" and it is recommended that the solar modules are below (or only slightly above) the parapet for aesthetic reasons. For the solar design, it is recommended that the solar array is not visible from the ground.

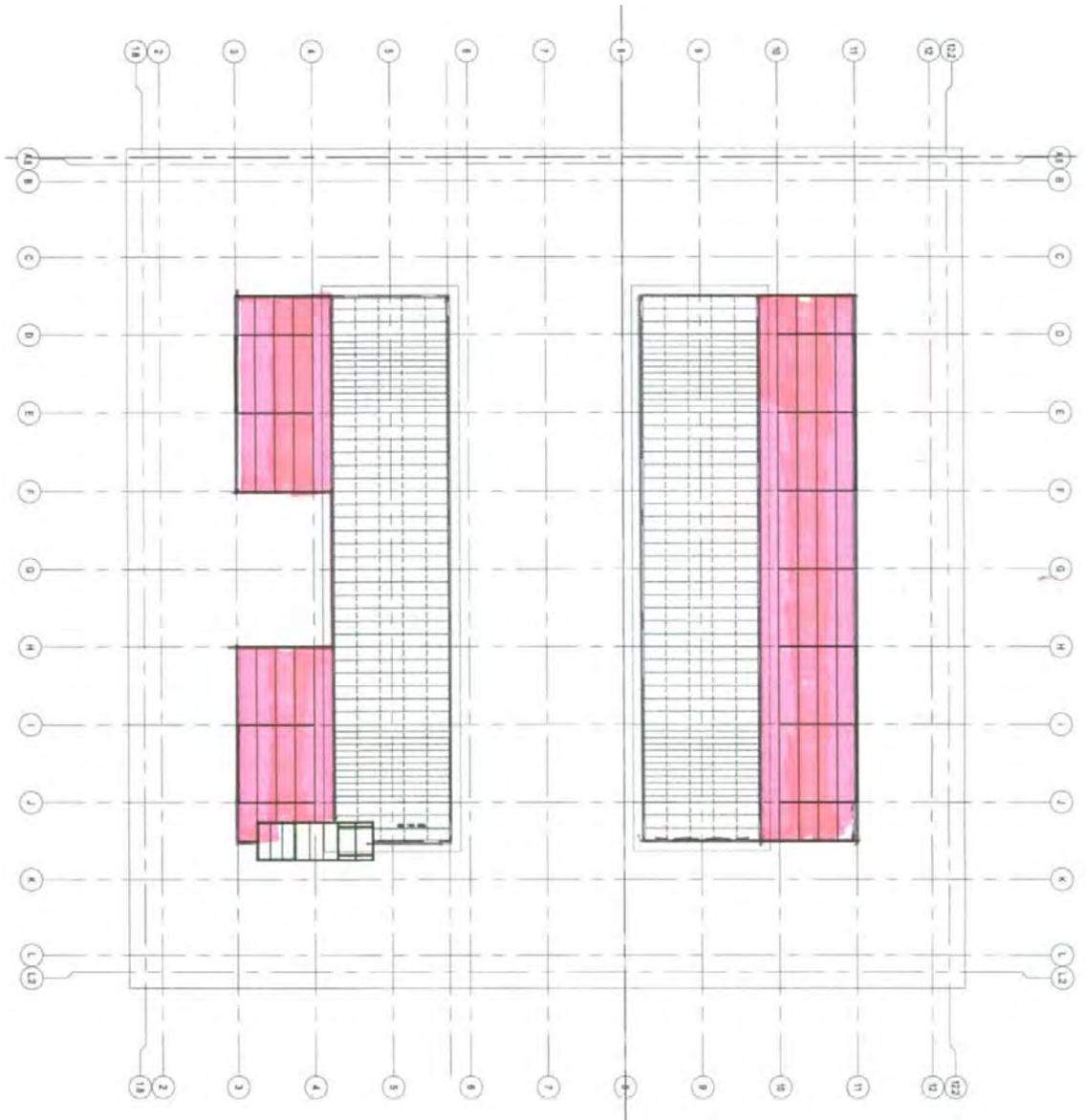


Figure 2 The Area Marked in 'Red' Shows > 6 psf Dead Load Capacity for Solar



Figure 3 Open Web Truss Roof Structure of Marriott Penthouse

NOTE ON Marriott Penthouse TRUSSES

The trusses in the old sections seem to all bear the designation "Vulcraft 76528". In the open (central) areas these are further identified as J3. South of the open sections the trusses are J1 and to the north they are J2. All three of these seem to share the same basic design: top and bottom chords consist of back to back $11\frac{1}{2}$ " angles sandwiching $\frac{3}{4}$ " rod as the diagonal member. This $\frac{3}{4}$ " rod is bent, not segmented, where it meets the chords and the centers of these bends are $23\frac{1}{2}$ " apart along each chord. Overall truss depth is 22". The J1s have top and bottom chords that are continuous from bearing wall to bearing wall; the J1s and J2s appear identical to each other and have lower chords that terminate approximately 34" from one or both of the bearing walls, with a separate piece of $\frac{3}{4}$ " rod forming a final diagonal from this point up to the end of the top chord at the bearing wall.

The trusses in these old areas run E and W across the entire span of the original penthouse; the trusses in the new section run N and S between large (approx. 2' deep) I beams. These I beams are the heavier lines in **Figure 21**. In the old sections the trusses are spaced approximately 4' apart, except for an area near the N and S ends of each penthouse where the spacing is reduced to 2'. Again, this is as indicated on the drawing you sent.

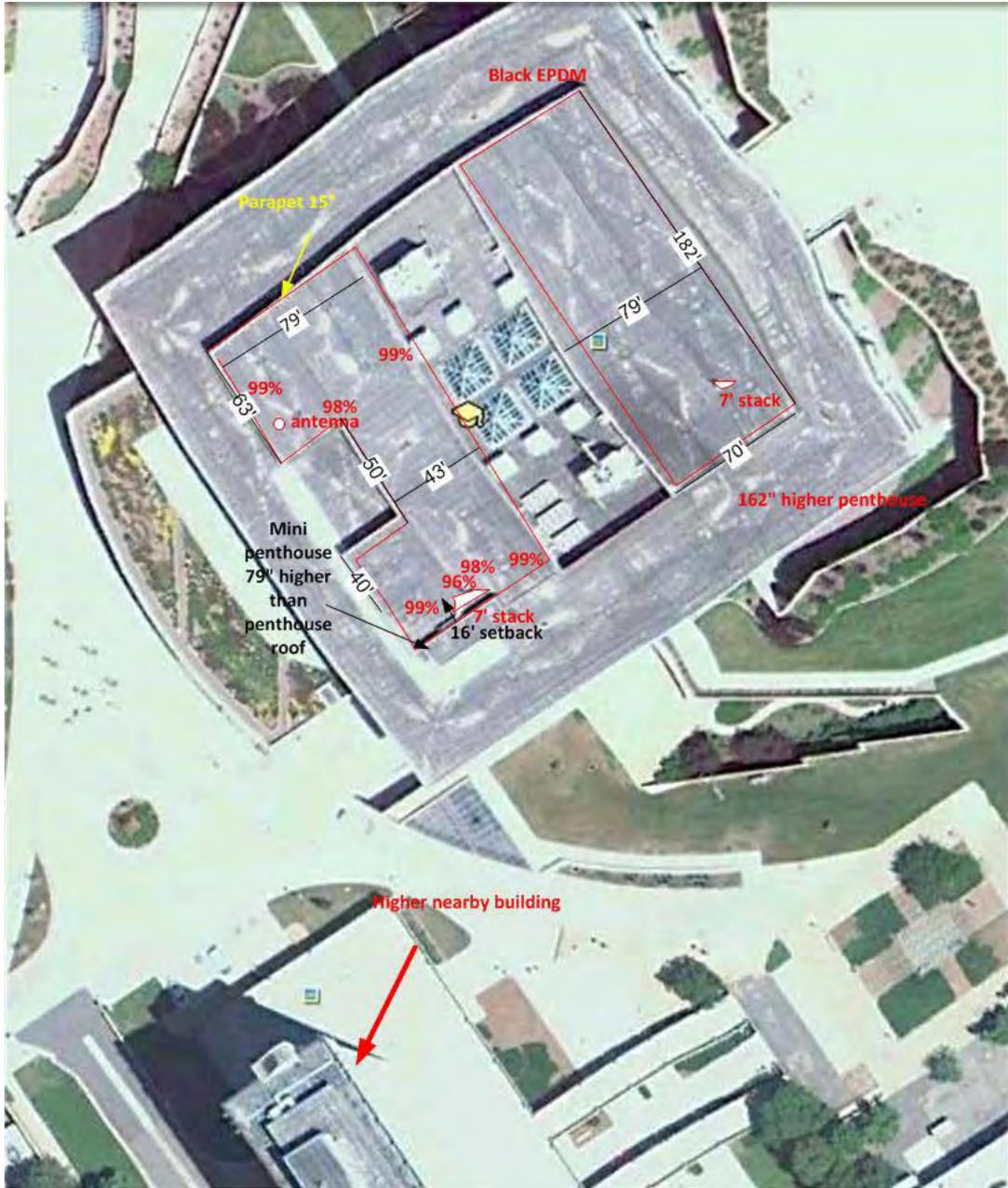


Figure 4 Obstacle Analysis on Marriott Penthouses



Figure 5 Marriott West Penthouse Facing South



Figure 6 Marriott West Penthouse Stack with High-rise in Background (Facing SW)

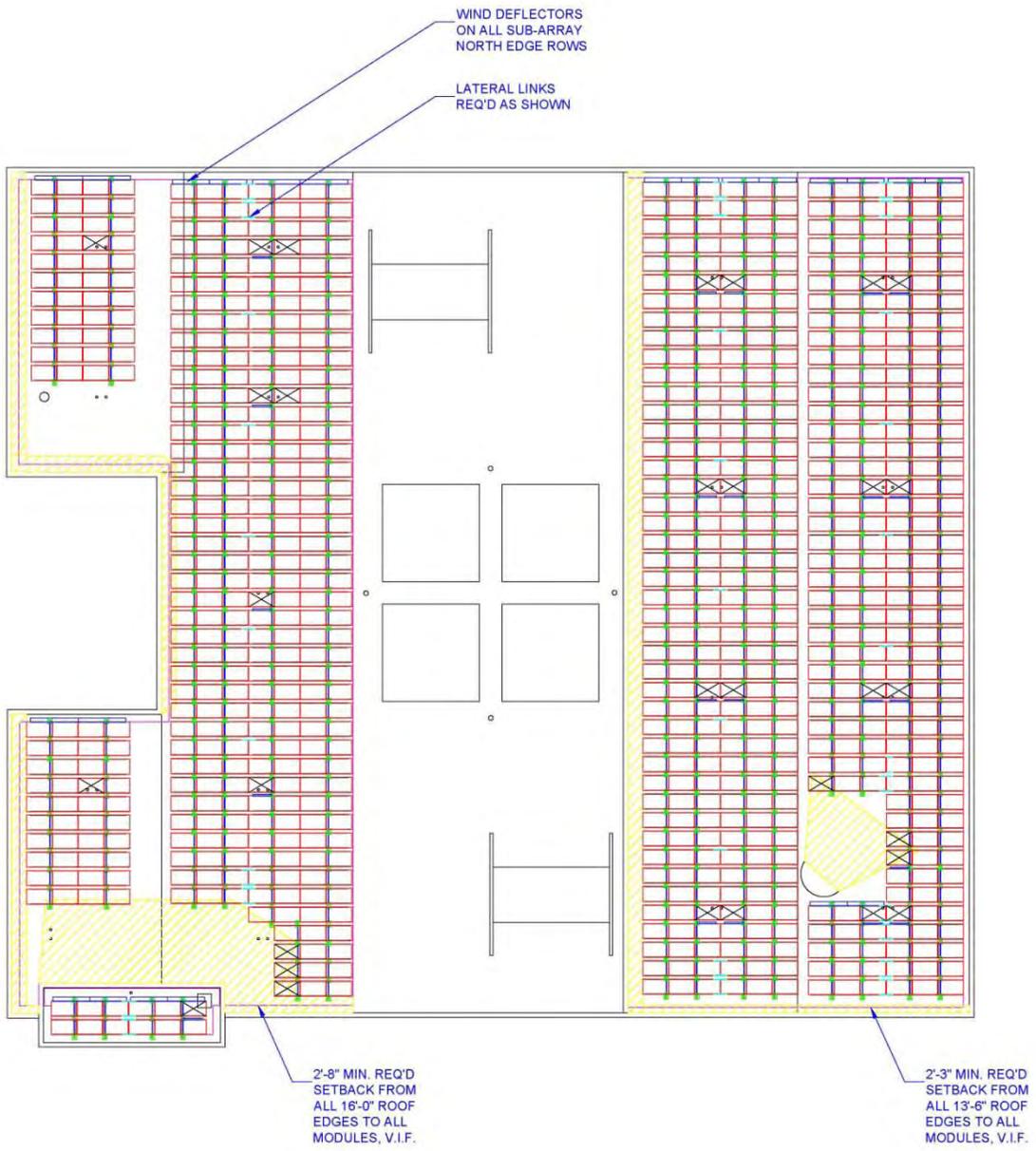


Figure 7 Marriott Solar PV Lay-out Example (Landscape, 5° Tilt, Spacing 'East-West)

Tanner #45 (20-40 kW Solar Array)



Figure 8 Tanner Building

The Carolyn Tanner Irish Humanities Building is relatively new. This building is four floors high and has two first floor outbuildings. The lower roof parts are not very suitable for solar (too much shading from the higher building parts for great parts of the day).

Electrical and Structural Evaluation

Table 1 shows load parameters from the general structural drawing (#SG01).

Table 1 Tanner Load Parameters, from Structural Drawing Set

Snow Load	Roof Snow Load: 32 psf + Drift per IBC Ground Snow Load, Pg: 46 psf Snow Exposure Factor, Ce: 1.0 Importance Factor, IS: 1.0 Thermal Factor, Ct: 1.0
Seismic	Seismic Design Category.....E
Wind	Basic Wind Speed.....90mph Exposure.....B Exposure Components & Cladding.....C

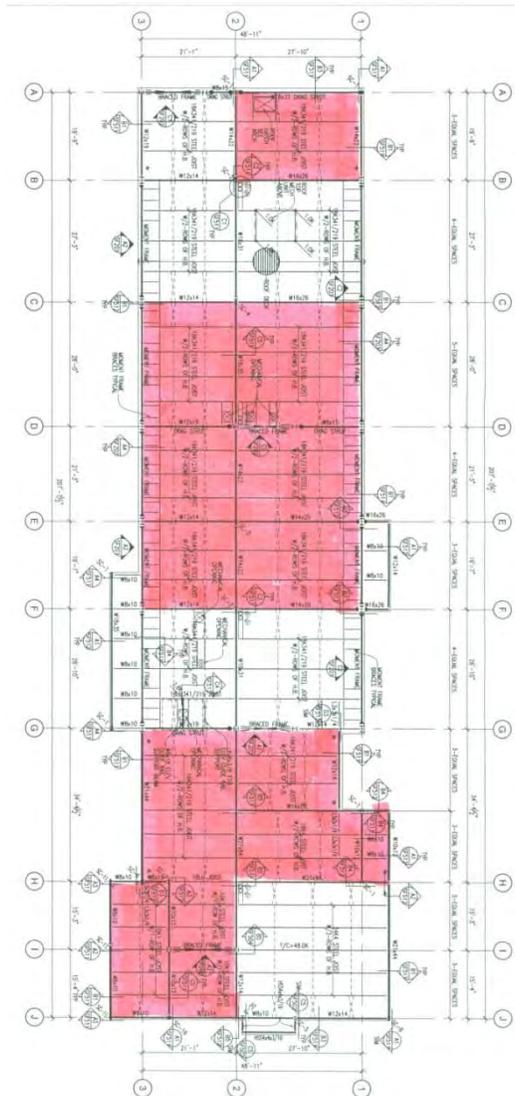


Figure 9 The Red Marked Areas were Found to be Able to Take Additional Dead Load of 5-6 psf.

The one-line and structural drawings are appended. Inspection of the existing structural drawings (**Figure 9**) revealed that not all roof parts can take an additional dead load of 6 psf. The spacing of the roof joists was not equal in all roof parts, effectively reducing the solar potential on this roof¹.

The building supply is 480 V / 3 ph. The main electrical room is on the ground floor but sub panels (/rooms) are on every floor. There is potentially space for an inverter.

Obstacles, Solar Access and Assumptions

Figure 13 shows the solar access, the obstacles and the roof material that were noted during a roof visit (also see **Figure 10** and **Figure 11**).

¹ Final evaluation of the structural impacts of a solar array is the responsibility of the vendor.

- The dimensions of the (4th floor) roof are 48'11" x 207'8". The roof material is TPO and is about 4 years old.
- The solar access is 100% on the entire roof except around the obstacles.
- There is a large chiller on the north side of the roof. This chiller is 6' high so there is no room for solar modules north of the chiller.
- There are several square skylights along the length of the roof. These are 18" high.
- There are several round vents, as marked in **Figure 13**. These are 38" high.
- The roof parapet is 11". There is also a 38" high structure on the south side of the roof. The offset from the south side roof edge needs to be at least 16'.



Figure 10 Chiller Unit on Tanner (Facing South)



Figure 11 Tanner Facing South



Figure 12 Tanner Facing North

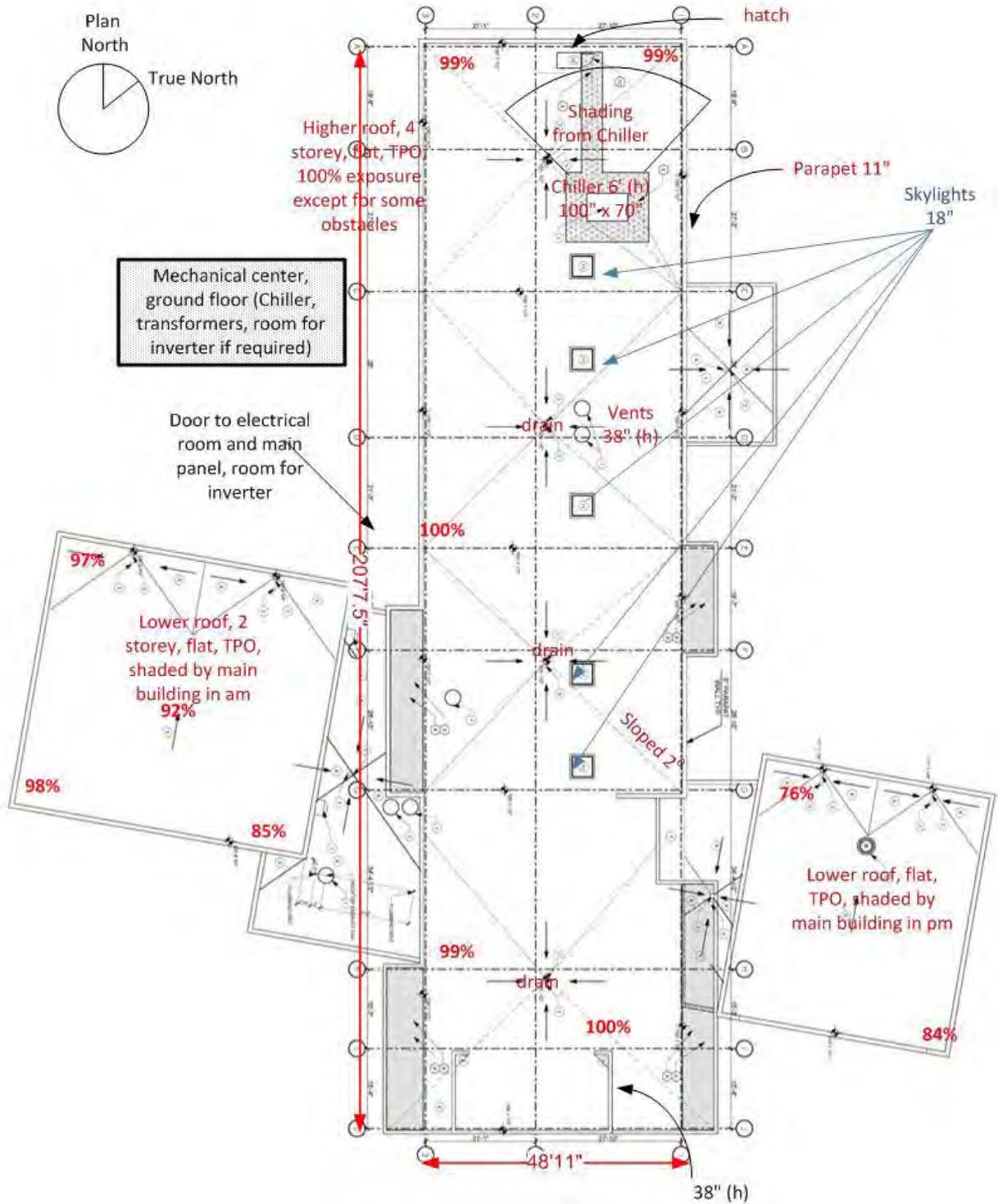


Figure 13 Tanner Roof with Dimensions, Obstacles and Solar Access

Example Lay-out

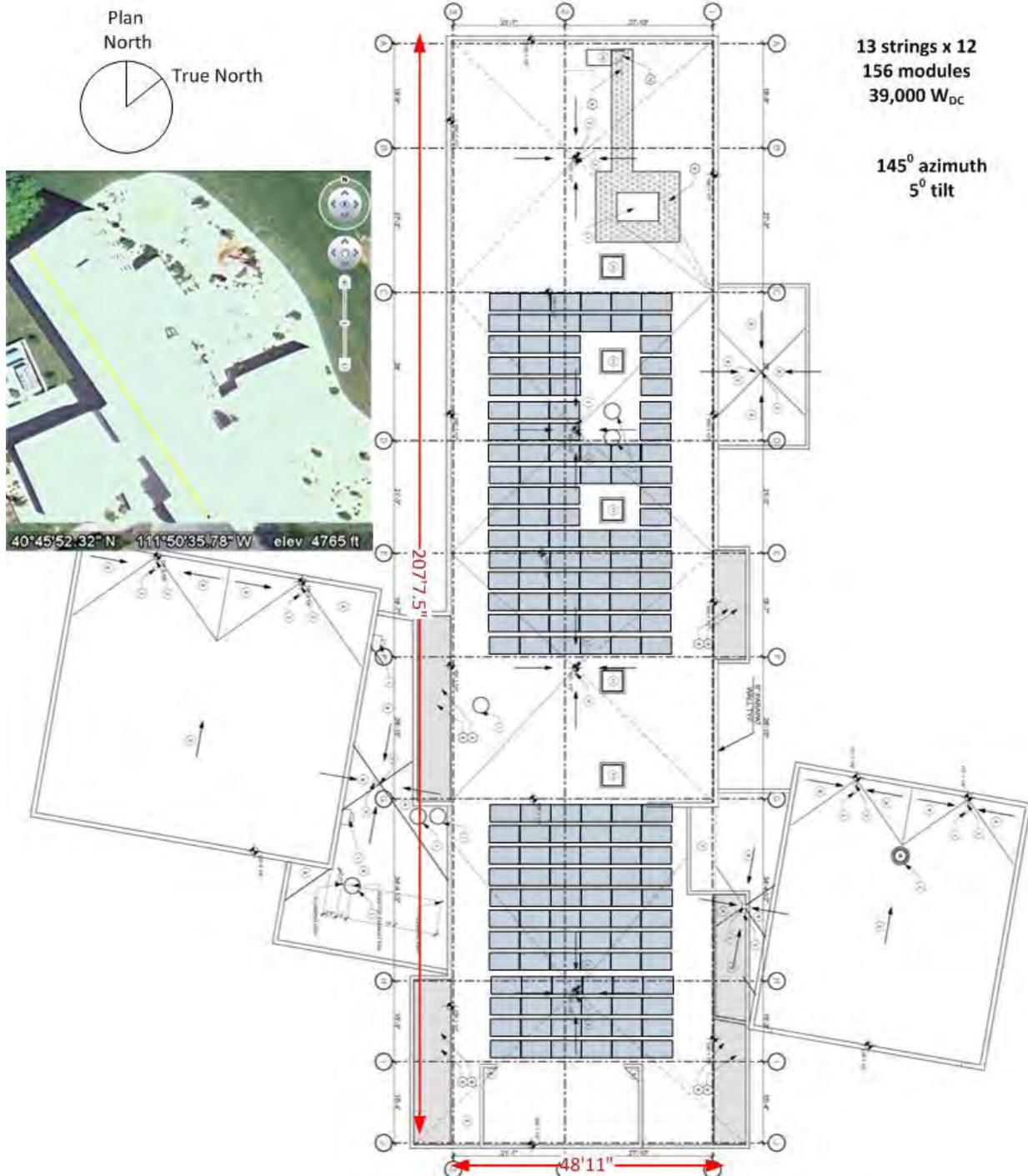


Figure 14 Tanner Example Lay-out (5° tilt, 4' Center Spacing, Landscape, Azimuth 145°)

Billing Information for Marriott and Tanner

Meter Name	Utility Meter 1	Rate Schedule	Address	Utility Account #
Stadium Substation	35704901	31M	1400 E 200 South	19238276-001 0

Specific Requirement for UofU Array Configuration

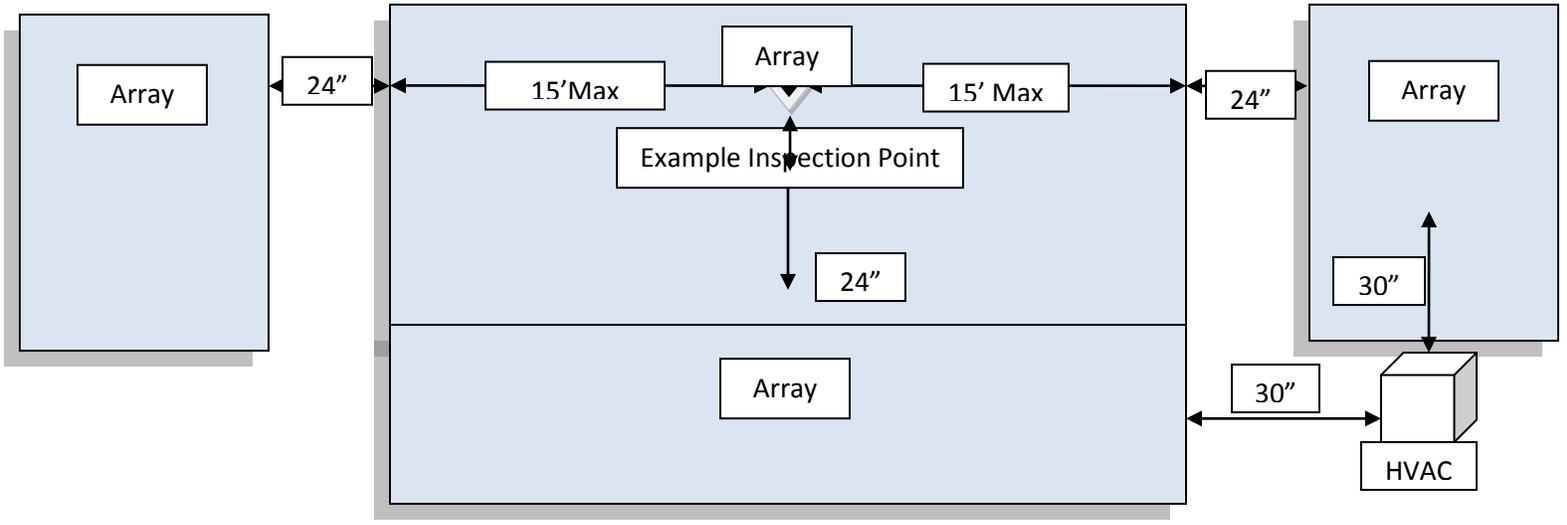
Similar to the array installed on HPER-E, a Solar PV Systems Mounted on University roofs must:

1. Be Structurally Attached (no ballasted systems). Bearing points are allowed, but system must be attached to structure and engineered for seismic and wind loading.
2. Maintain Roof Warranty:
 - a. All roof penetrations to have manufacturer-approved flashings, and manufactured flashings are preferred over field fabricated. Also, membranes around penetrations shall mechanically terminate 8" inches minimum above the roof membrane, unless otherwise approved by the University.
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 - c. Paths to equipment shall be maintained or redirected if an obstruction through the path results from the installation of the panels.
 - d. Provide written documentation that roof warranty(s) will not be compromised by the installation or maintenance of the PV system.

Roof Installation and Maintenance Plan: Parameter Sketch

3. Racking systems must allow ease of visual inspection of roof membranes, and access to roof surface for repair. The following specifications are acceptable.
 - a. Panels installed with 12" or greater clearance above the roof surface, shall allow 24" aisles between each row of panels, permitting access for hands-and-knees roof surface inspection.
 - b. There shall be a 30" minimum aisle width to all roof equipment and roof penetrations (HVAC equipment, drains, vents, etc.). Subject to specific equipment requirements, design must ensure that clearance requirements for maintenance on rooftop systems will be maintained.
 - c. Where high rack-to-roof clearances, e.g., 24+", may be impractical due to cost, structural or architectural issues, or where very low profile/tilt angle will be necessary for building aesthetics, the University will consider other reasonable options, as long as such proposals specifically allow for expedient ease of visual roof inspection and access to structural attachments and bearing points with minimal tools.

If adequate roof surface clearance permitting hands and knees inspection is allowed within the design, no point under an array shall be greater than 15' from any aisle/access point. Please see sketch below:



KEYNOTE LEGEND

- 01 GENERAL REQUIREMENTS
 - 01100.17 EXISTING SKYLIGHT TO REMAIN
 - 01100.29 EXISTING ROOF STRUCTURE TO REMAIN
 - 01732.43 REMOVE EXISTING WOOD ROOF DECK ON PENTHOUSE
 - 01732.52 SAW CUT & REMOVE EXIST. CANTILEVERED CONCRETE ROOF EXTENSION @ PENTHOUSE ROOF
- 03 CONCRETE
 - 03491.02 1/2" JOINT WITH SEALANT
- 07 THERMOMOISTURE PROTECT.
 - 07531.01 EPDM MEMBRANE ROOFING ON TAPERED INSULATION
- 15 MECHANICAL SYSTEMS
 - 15000.03 NEW ROOF DRAIN AND OVERFLOW DRAIN, TYP.
- 16 ELECTRICAL SYSTEMS
 - 16511.02 LIGHTNING PROTECTION RODS, SEE ELECTRICAL DWGS.

State of Utah
Department of Administrative Services

Division of Facilities Construction & Management
4110 State Office Building
Salt Lake City, Utah 84114
Phone: (801) 538 - 3018
Fax: (801) 538 - 3267
Internet: <http://dfcm.utah.gov>

THE UNIVERSITY OF UTAH

MJSA
307 West Poynton Avenue • Salt Lake City, Utah 84101
Telephone 801 364 5561 • Facsimile 801 364 5167
ARCHITECTURE INTERIOR DESIGN



IMPORTANT
SEE GENERAL NOTES FOR INFORMATION ON FASTENING TO POST TENSIONED SLAB (AG0-01)

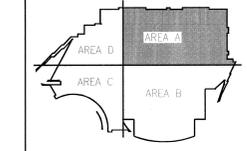
MARCH 2005 BID SET

University of Utah Salt Lake City, Utah

Marriott Library Renovation

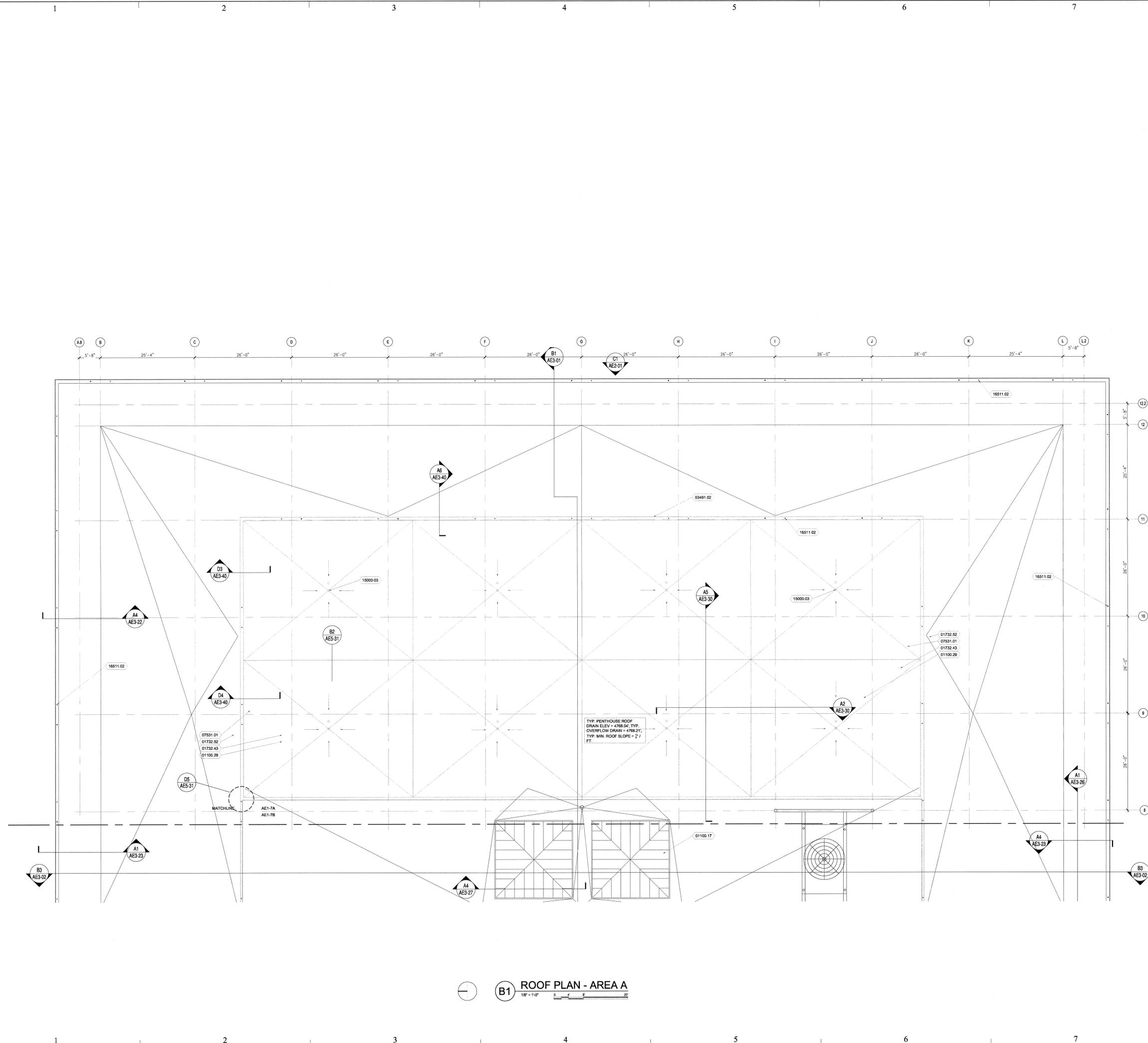
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CONTRACT DOCUMENTS		
March 7, 2005		
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U of U PROJECT NO.: 0086-10750		
PROPERTY ID #: 00324		
CAD DWG FILE: AE1-7A.dwg		
DRAWN BY: D.B.L.		
CHECKED BY: R.J.		
COPYRIGHT: STATE OF UTAH		
MISA PROJECT NO.: 02057		

KEY PLAN

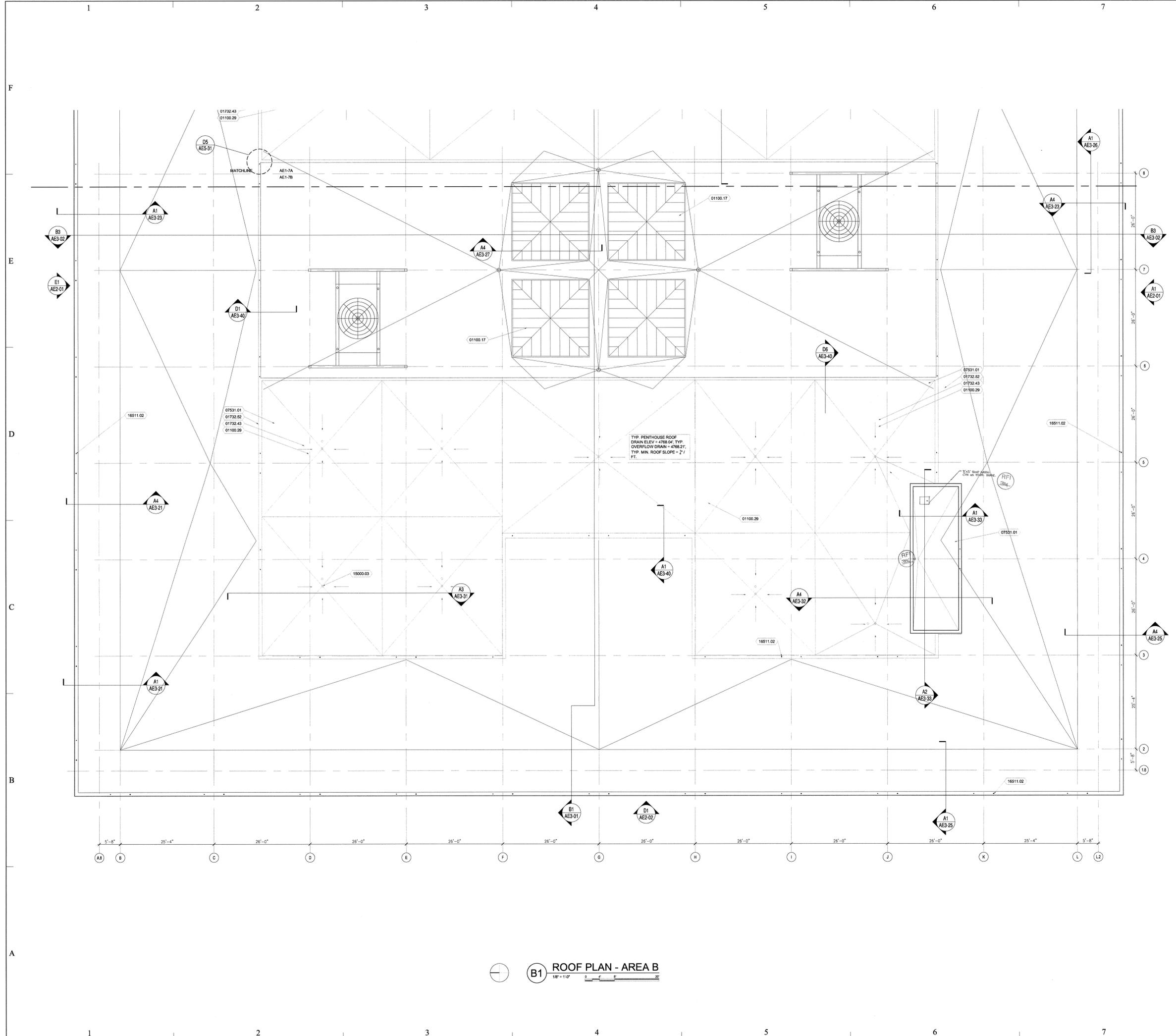


ROOF PLAN AREA A

AE1-7A
157 OF 505



B1 ROOF PLAN - AREA A
1/8" = 1'-0"



KEYNOTE LEGEND

- 01 GENERAL REQUIREMENTS
 - 01100.17 EXISTING SKYLIGHT TO REMAIN
 - 01100.29 EXISTING ROOF STRUCTURE TO REMAIN
 - 01732.43 REMOVE EXISTING WOOD ROOF DECK ON PENTHOUSE
 - 01732.52 SAW CUT & REMOVE EXIST CANTILEVERED CONCRETE ROOF EXTENSION @ PENTHOUSE ROOF
- 03 CONCRETE
 - 03491.02 1/2" JOINT WITH SEALANT
- 07 THERMO-MOISTURE PROTECT...
 - 07531.01 EPDM MEMBRANE ROOFING ON TAPERED INSULATION
- 15 MECHANICAL SYSTEMS
 - 15000.03 NEW ROOF DRAIN AND OVERFLOW DRAIN, TYP.
- 16 ELECTRICAL SYSTEMS
 - 16511.02 LIGHTNING PROTECTION RODS, SEE ELECTRICAL DWGS.

State of Utah
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 Division of Facilities Construction & Management
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 ARCHITECTURE INTERIOR DESIGN

IMPORTANT
 SEE GENERAL NOTES FOR INFORMATION ON FASTENING TO POST TENSIONED SLAB (AG0-01)

MARCH 2005 BID SET

University of Utah Salt Lake City, Utah

Marriott Library Renovation

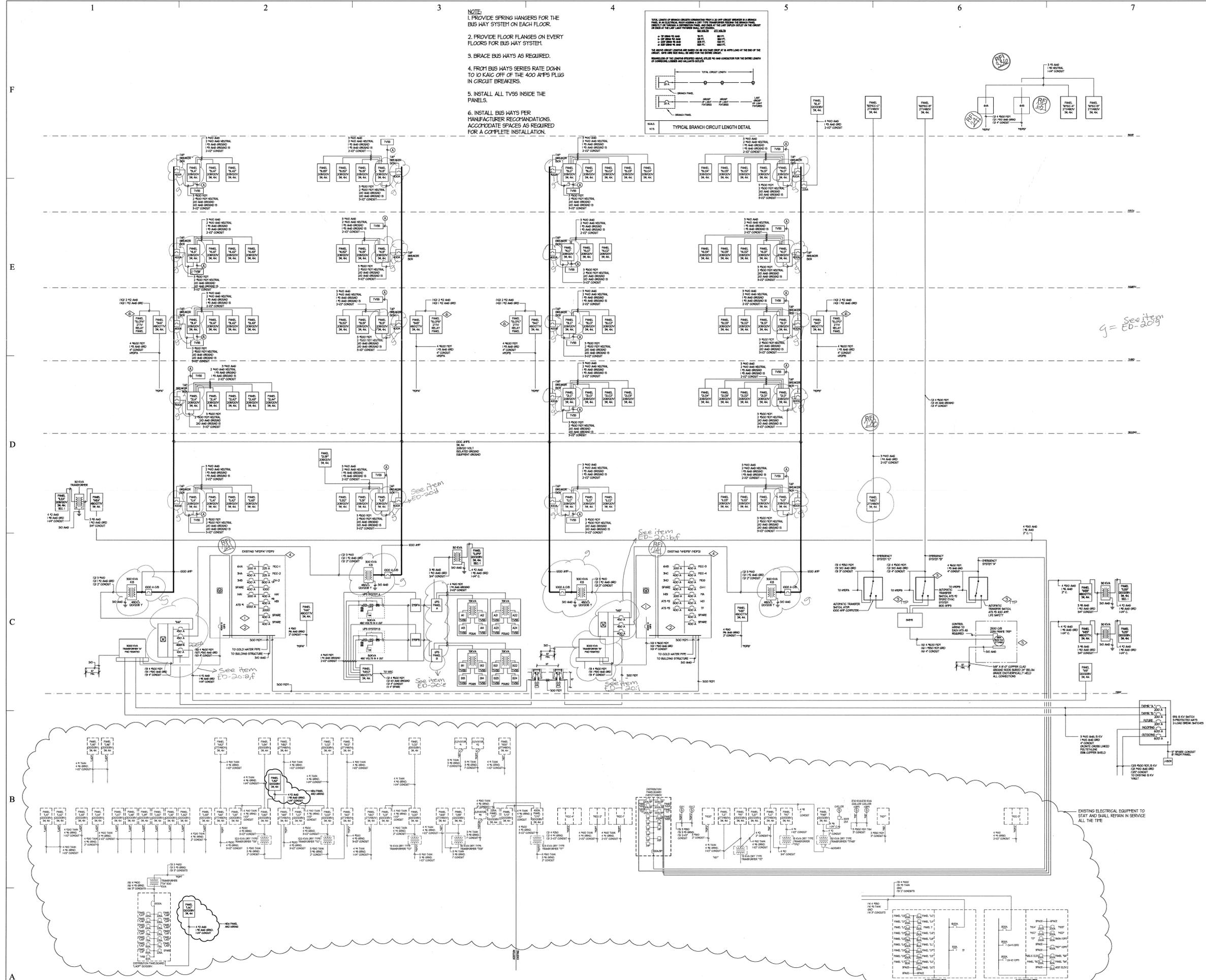
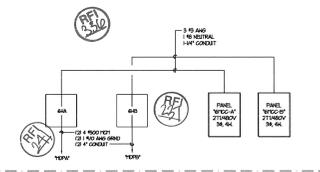
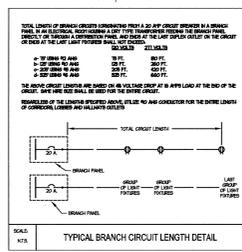
MARK	DATE	DESCRIPTION
CONTRACT DOCUMENTS		
March 7, 2005		
DFCM PROJECT NO.: 02032750		
U of U PROJECT NO.: 0086-10750		
PROPERTY ID #: 00324		
CAD DWG FILE: AE1-7B.dwg		
DRAWN BY: D.B.L.		
CHECKED BY: E.J.		
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MISA PROJECT NO. 02057		

KEY PLAN

ROOF PLAN - AREA B
 1/8" = 1'-0"

AE1-7B
 SHEET 158 OF 505

- NOTE:
1. PROVIDE SPRING HANGERS FOR THE BUS WAY SYSTEM ON EACH FLOOR.
 2. PROVIDE FLOOR FLANGES ON EVERY FLOOR FOR BUS WAY SYSTEM.
 3. BRACE BUS WAYS AS REQUIRED.
 4. FROM BUS WAYS SERIES RATE DOWN TO 10 KAIC OFF OF THE 400 AMP'S PLUG IN CIRCUIT BREAKERS.
 5. INSTALL ALL TVSS INSIDE THE PANELS.
 6. INSTALL BUS WAYS PER MANUFACTURER RECOMMENDATIONS. ACCOMMODATE SPACES AS REQUIRED FOR A COMPLETE INSTALLATION.



NEW POWER SINGLE LINE DIAGRAM
SCALE: NTS

KEYNOTE LEGEND

- ◇ FURNISH AND INSTALL ONE 800 AMP, 3 POLE CIRCUIT BREAKER IN EACH PANEL 'M01A' AND 'M01B' TO FEED THE NEW PANELS '6HA' AND '6HB'. THE NEW CIRCUIT BREAKERS SHALL BE THE SAME EXACT TYPE AND SHALL HAVE THE SAME AIC RATING.
- ◇ FURNISH AND INSTALL ONE 1000 AND ONE 800 AMP, 3 POLE CIRCUIT BREAKERS IN EACH PANEL 'M02A' AND 'M02B' TO FEED THE NEW ATS #1 AND ATS #2. THE NEW CIRCUIT BREAKERS SHALL BE THE SAME EXACT TYPE AND SHALL HAVE THE SAME AIC RATING.
- ◇ UNDER ALTERNATE #4 (ADDITIVE) AS SPECIFIED, PROVIDE ATS#1, #2 AND #3 WITH DOUBLE BY-PASS SYSTEM.
- ◇ EXISTING TIE-IN BETWEEN H01FA AND H01FB TO REMAIN. REFER TO SHEET EE6-02 FOR THE EXACT LAYOUT OF H01A AND H01B. REFER TO THE EXISTING SCHEDULES FOR THE T10 PANELS. FURNISH AND INSTALL NEW BREAKERS TO EXACTLY MATCH EXISTING BREAKERS TO ACCOMMODATE THE LOADS AS INDICATED IN THE PANELS.
- ◇ FURNISH AND INSTALL A NEW 1500KW DIESEL ENGINE GENERATOR WITH WEATHER PROOF ENCLOSURE. PROVIDE CIRCUIT BREAKERS AS SHOWN. THE CONTROL TO EACH ATS FOR AUTOMATIC OPERATION PER MANUFACTURERS RECOMMENDATION.
- ◇ INTERCONNECT ALL LOW-VOLTAGE LIGHTING CONTROL PANELS PER MANUFACTURERS RECOMMENDATION. FURNISH AND INSTALL A NEW LIGHTING CONTROLLER IN STORAGE 1066 ON THE WEST HALL NEAR THE ENTRANCE. TIE THIS CONTROLLER TO THE LIGHTING CONTROL PANELS PER MANUFACTURERS RECOMMENDATION. THE CONTROLLER SHALL HAVE A MINIMUM OF SIX PUSH BUTTONS, ONE TO OPERATE THE ENTIRE BUILDING, THE OTHER FIVE SHALL OPERATE ONE LEVEL AT A TIME. EACH PUSH BUTTON SHALL HAVE TWO LED LIGHTS TO SHOW THE STATUS OF THE LIGHTS ON EACH LEVEL. RED IS TO REPRESENT OFF AND GREEN TO REPRESENT ON.

- NOTES:
- 1-OIL FILLED TRANSFORMER SHALL BE PROVIDED WITH FR3 INSULATING FLUID.
 - 2-3000 KVA TRANSFORMER SHALL BE PROVIDED WITH:
 - a. (3) 600A, 15 KV HELLS
 - b. TAPS (2) 2-1/2% ABOVE
 - c. TAPS (2) 2% BELOW
 - d. RADIAL FEED
 - 3-HIGH POT TESTING OF THE H.V. CABLE SHALL BE DONE BY INDEPENDENT TESTING COMPANY APPROVED BY U OF U ELECTRICAL SHOP.
 - 4-5 KV TERMINATION SHALL BE DONE BY A TRAINED PERSON, CERTIFIED BY CABLE MANUFACTURER. THE PERSON MUST PRESENT CERTIFICATION TO U OF U ELECTRICAL SHOP.
 - 5-5K CABLE AND GROUND CONDUCTORS TO LOOP MANHOLE 1-1/2 TURNS.
 - 6-EVERY NEW 208/240 VOLT PANEL SHALL BE PROVIDED WITH FULL SIZE COMMON GROUND BUS BAR AND FULL SIZE ISOLATED GROUND BUS BAR.
 - 7-PROVIDE SHUNT TRIP CIRCUIT BREAKERS FOR ALL ELEVATORS.
 - 8-PROVIDE TWO (2) 200 AMP'S BREAKERS IN PANEL 'HEF' TO FEED PANELS 'HEA' AND 'HEB'.
 - 9-GROUND IS STANDS FOR ISOLATED GROUND.
 - 10-IGB, AS CALLED ON THE PANEL SCHEDULES FEAS ISOLATED GROUND BUS.
 - 11-PROVIDE CABLE TAP BOXES IN THE EXISTING H.V. TRANSFORMER ROOM ON THE NORTH HALL TO TERMINATE NEW 4000 AMP'S FEEDERS TO THE EXISTING 'M01A' AND 'M02B' THROUGH PART OF EXISTING BUS WAY SYSTEM.
 - 12-ALL ELEVATORS SHALL BE PROVIDED WITH SHUNT TRIP CIRCUIT BREAKERS AS REQUIRED. TIE THE SHUNT TRIP SYSTEM TO THE FIRE ALARM SYSTEM TO SHUT OFF THE POWER DURING FIRE ALARM AND STOP THE ELEVATOR AT THE PREDETERMINED LEVEL OR ALTERNATE FLOOR AS APPLICABLE. PROVIDE POWER TO THE SHUNT TRIP FEATURE AS REQUIRED.
 - 13-PROVIDE NEW GROUNDING SYSTEM AS SHOWN FOR ALL NEW AND EXISTING PANELS.
 - 14-INFRARED SCANNING AS SPECIFIED IN SECTIONS 16410, 16441, 16442 AND 16450 APPLIES TO NEW AND EXISTING PANELS IN AREAS A & B ONLY.

IMPORTANT
SEE SPECIAL NOTES FOR INFORMATION ON FASTENING TO POST TENSION SLAB (AG0-01)

MARCH 2005
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University of Utah
Salt Lake City, Utah

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Library
Renovation

MARK	DATE	DESCRIPTION

INFORMATION NOTE
1. INSTANTANEOUS LOAD REQUIRED AT EXISTING MAIN DISTRIBUTION PANEL ON FEB. 14, 2008 AT 3:00 PM.
A. MDP1: 130 AMP'S
B. MDP2: 640 AMP'S

KEY PLAN

NEW POWER SINGLE DIAGRAM

EE6-03
477 OF 502

State of Utah
Department of Administrative Services

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IMPORTANT
SEE SPECIAL NOTES FOR INFORMATION ON FASTENING TO POST TENSION SLAB (AG0-01)

MARCH 2005
BID SET

University of Utah
Salt Lake City, Utah

Marriott
Library
Renovation

MARK	DATE	DESCRIPTION

DFCM PROJECT NO.: 02032750
U OF U PROJECT NO.: 0086-10750
PROPERTY ID #: 00324
CAD DWG FILE: EE6-03.DWG
DRAWN BY: EN
CHECKED BY: EN
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MISA PROJECT NO: 02057

NEW POWER SINGLE DIAGRAM

EE6-03
477 OF 502

AS BUILT

GENERAL STRUCTURAL NOTES

I. Design Criteria

- A. Governing Design Documents:
1. Governing Building Code: 2000 International Building Code (IBC)
2. Seismic Rehabilitation Design Reference: November 2000, FEMA 356, "Prestandard and Commentary for the Seismic Rehabilitation of Buildings"

- B. Floor Live Loading:
1. Library Stack Areas: 125 psf Live Load
2. Exit Facilities & Corridors: 100 psf Live Load
3. Mechanical Rooms: 125 psf Live Load or actual weights, if larger

- C. Roof Live Loading:
1. Roof Live Load: 20 psf
2. Roof Snow Load: 39 psf + Drift per IBC
a. Ground Snow Load, Pg: 50 psf
b. Snow Exposure Factor, Ce: 1.0
c. Thermal Factor, Ct: 1.0
d. Main Library Bldg. Importance Factor, Is: 1.1
e. AS/RS Building Importance Factor, Is: 1.0
3. Minimum Roof Live Load at AS/RS Building: 100 psf

- D. Earthquake: Force levels per site-specific response spectra.
1. Spectral Response Coefficient, Sa: 1.78 g
2. Spectral Response Coefficient, S1: 0.80 g
3. Site Class: C
4. Main Library Building values:
a. Seismic Use Group: II
b. Basic Seismic-Force-Resisting System: Buckling-Restrained Braced Frames
c. Importance Factor, Ie: 1.25
d. Design Base Shear: 16,600 kips (IBC force levels)
e. Analysis Procedure: Dynamic
5. AS/RS Building values:
a. Seismic Use Group: I
b. Basic Seismic-Force-Resisting System: Bearing Wall System, Special Reinforced Concrete Shear Walls & Steel Special Concentrically Braced Frames.
c. Importance Factor, Ie: 1.00
d. Design Base Shear: 1789 kips
e. Analysis Procedure: Equivalent Lateral Force (Static)

- E. Wind:
1. Basic Wind Speed (3-second gust): 90 mph
2. Exposure: C
3. Internal Pressure Coefficient, Gcpi: +/- 0.18
4. Main Library Building values:
a. Importance Factor, Iw: 1.15
b. Components & Cladding Design Pressure: per ASCE 7-98 for the indicated wind design parameters
5. AS/RS Building values:
a. Importance Factor, Iw: 1.00
b. Components & Cladding Design Pressure: per ASCE 7-98 for the indicated wind design parameters

- F. Subsurface Conditions:
1. Soils report and log of borings was obtained by the Owner for the Engineer's use in the design of the foundation, and is not a part of the Contract Documents. This report and log of borings is available for the Contractor's information, but is not a warranty of the subsurface conditions. The Contractor may use the report at his own risk.
2. Soils Report by Applied Geotechnical Engineering Consultants, dated March 27, 2003.
3. Soil Bearing Pressure: 4000 psf, on Compacted Fill
4. Lateral Soil Pressure Fluid Equivalent Density. (Value for sand and gravel soils)
a. Active: 35 pcf (retaining walls)
b. At Rest: 50 pcf (rigid foundation walls)
c. Passive: 300 pcf
5. Coefficient of Friction: 0.45 (for gravel soils)
6. Drilled concrete piers (Friction): 100 Tons Each, based on 1' diameter piers with 45' embedment

- G. Classification for Fire Rated Construction:
1. For the purpose of determining fire-resistive assemblies, the steel roof framing members shall be considered unrestrained and the steel floor framing members shall be considered restrained.
2. All members in vertical braced frames shall be considered as primary members for fire proofing protection.

II. Earthwork

- A. Proof rolling: The natural undisturbed soil below all footings shall be proof rolled prior to placing concrete. Remove all soft spots and replace with compacted structural fill.
B. Compacted structural fill below footings: All fill material shall be a well-graded granular material with a maximum size less than 4 inches and with not more than 35 percent passing a No. 200 sieve. It shall be compacted to 95 percent of the maximum laboratory density as determined by ASTM D1557. All fill shall be tested (See Specifications).

III. Concrete

- A. Materials shall comply with the Standards specified in ACI 318-99, "Building Code Requirements for Structural Concrete."
1. Compressive strengths of concrete at 28 days shall be as follows:
a. Footings: 4000 psi
b. Grade Beams and Pile Caps: 4000 psi
c. Slabs on Grade: 4000 psi
d. Walls: 4000 psi
e. Columns: 4000 psi
f. Joists, Beams and Suspended Slabs: 4000 psi
g. Lightweight concrete over Steel Deck: 3000 psi
h. All other Site Cast Concrete: 4000 psi
i. Post Tension (Reaction Blocks): 5000 psi
2. Concrete Density:
a. Normal weight concrete shall be approximately 145 to 155 pounds per cubic foot.
b. Lightweight concrete shall not exceed 110 pounds per cubic foot and shall be made of lightweight coarse aggregates and a blend of lightweight and normal weight fines.
3. Reinforcement steel:
a. ASTM A615 Grade 60, fy = 60,000 psi min. unless noted otherwise.
b. Reinforcement at concrete moment frames and shear wall jombs shall be ASTM A706 or ASTM A615 Grade 60, with the following properties:
(1) Actual yield strength based on mill tests shall not exceed 78,000 psi.
(2) Retest shall not exceed 81,000 psi.
(3) Ratio of actual ultimate tensile stress to the actual yield strength shall not be less than 1.25.
(4) Mill tests shall be submitted to the Engineer.
4. Admixtures:
a. Air-entraining admixtures, comply with ASTM C 260 (when used).
(1) When air content of a trowel finished floor slab exceeds 3%, there is an increased risk for delaminations and blistering to occur. When this situation is present, the contractor shall pay special attention to the finishing procedures to help minimize such risks. Refer to ACI 302.1R-96 "Guide for Concrete Floor and Slab Construction" for proper finishing guidelines.
b. Calcium chloride shall not be added to the concrete mix.
5. Only one grade or type of concrete shall be poured on the site at any given time.

- B. Formwork shall comply with ACI Standards Publication 347 and the project specifications. The contractor shall be responsible for the design, detailing, care, placement and removal of the formwork and shores.
1. Precamber forms and sores with a camber of 1/4" per every 10'-0" of span to compensate for dead load deflection, unless noted otherwise.

- C. Concrete cover requirements for deformed bar reinforcing steel shall comply with ACI 318, "Building Code Requirements for Structural Concrete".
1. Cast-in-place Concrete: Clear Cover
a. Cast against and permanently exposed to earth: 3"
b. Formed concrete exposed to earth or weather: #6 thru #18 bars: 2" #5 and smaller bars: 1.1/2"
c. Concrete not exposed to weather or in contact with ground: Slabs, Walls, Joists; #11 bars and smaller: 3/4" Beams, Columns: Primary Reinf., Ties, Stirrups, Spirals: 1.1/2"
2. Pre-cast Concrete (manufactured under plant controlled conditions): Wall Panels #11 bars and smaller: 3/4" Other members #6 thru #11 bars: 1.1/2" Other members #5 bars and smaller: 1.1/4"
3. Prestressed Concrete (Provide the following minimum cover for prestressed and non-prestressed reinforcements, ducts, and end fittings.):
a. Cast against and permanently exposed to earth: 3"
b. Formed concrete exposed to earth or weather: Wall Panels, Slabs, Joists: 1.1/2" Other Members: 1.1/2"
c. Concrete not exposed to weather or in contact with ground: Slabs, Walls, Joists: 3/4" Beams, Columns: Primary Reinf.: 1.1/2" Ties, Stirrups, Spirals: 1"

- D. Construction Joints and Control Joints:
1. Provide a continuous 2 X 4 keyway in all wall footings, unless noted otherwise. See details. Adjust the keyway as necessary to provide for proper bar placements.
2. All horizontal and vertical construction joints shall have a continuous 2 X 4 keyway along the joint, unless noted otherwise. See details. In addition, all joints shall be intentionally roughened to a full amplitude of approximately 1/4".
3. Provide reinforcement to match the member reinforcement across the joint, unless noted otherwise.
4. Construction joints in suspended concrete pours shall be made at the center of spans.
5. Slabs on grade shall have construction or control joints spaced not to exceed 30 times the slab thickness in any direction. All discontinuous control or construction joints shall be reinforced with 2 - #4 x 48". See structural details. Construction joints shall not exceed a distance of 125'-0" o.c. in any direction.
6. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be completed within 12 hours of concrete placement. Control joints may be installed by:
a. Saw cut a depth of 1/4 the thickness of the slab
b. Tooled joints a depth of 1/4 the thickness of the slab
7. Control joints in visually exposed walls, unless noted otherwise: (Joints shall line up with masonry and architectural joints, see drawings.)
a. Vertical control joints at 10'-0" on center.
b. Reinforcing shall be continuous through control and construction joints, unless noted otherwise.
c. Control joints in concrete foundation walls shall line up with masonry control joints.
8. Control joints shall be installed in suspended slabs over steel decking by sawcutting along all interior grid lines. Joints centered above the purlins shall be 3/4" deep and shall have #4 X 5'-0" at 16' o.c. reinforcing, placed perpendicular (and centered) to the purlin. Joints centered above the girders shall be 3/4" deep and shall have #4 X 10'-0" at 16' o.c. reinforcing placed perpendicular (and centered) to the girder. The #4 bar reinforcing centered above the grid lines is in addition to the specified WWF continuous throughout the suspended slabs over steel decking. Reinforcing shall be placed 1" below the top of the slab.
E. Detailing: All reinforcing, including WWF, shall be detailed, bolstered & supported to comply with ACI 315, "Details and Detailing of Concrete Reinforcement" and the Concrete Reinforcing Steel Institute (CRSI) recommendations. Reinforcing bars shall be welded unless specifically shown on drawings.
1. Lap splice lengths shall be detailed to comply with the "Reinforcing Bar Lap Splice Schedule" contained within the contract drawings. Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler. They shall be covered by a current ICBO Evaluation Report. Use "CadeWeld" splice sleeves with ferrous filler, "Lenton" taper threaded rebar splices, "Bar-Lock" lockwasher bolt coupling sleeves, or approved equivalent. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
2. All embedments and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
3. Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars and WWF prior to placing concrete. WWF shall be continuously supported at 36" o.c. maximum.
4. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing. Unless noted otherwise, corner bar lap lengths shall conform with reinforcing bar lap splice lengths as noted above.
5. All vertical reinforcing shall be doweled to footings, or to the structure below. Dowels shall be the same size and at the same spacing as the vertical reinforcing scheduled (or detailed) for the element above. Lap splice lengths shall comply as noted above or as shown in the drawings. Dowels extending into footings shall terminate with a 90 degree standard ACI hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#8 bars and smaller) with hooks need not extend more than 20" into footings.
6. Horizontal wall reinforcing shall terminate at ends of walls and openings into the far end of the jamb column with a 90 degree standard ACI hook, unless shown otherwise. Lap horizontal bar splices as noted above or as shown in the drawings. Horizontal wall reinforcing shall be continuous through construction and control joints. Splices in horizontal reinforcement shall be staggered, so the splice laps will not overlap. Splices in two curtains where used shall not occur in the same location, splice laps shall not overlap.
7. Wall Openings 8" to 36" wide: Place 2 - #5 bars (or 1 - #7 bar in 10" walls and thinner) around all openings 8" or larger in any direction, and extend the reinforcing bars a minimum of 24" beyond the corner of the openings, unless noted otherwise. Where 24" is not available, extend bars as far beyond the opening as possible and terminate them with a 90 degree standard ACI hook.
8. Wall Openings 36" wide and wider: Provide reinforced concrete lintels per Concrete Lintel Schedule over the top of, and 2 - #5 bars (or 1 - #7 bar in 10" walls and thinner) and on all sides and below every unscheduled opening, unless noted otherwise. Bars for all openings shall extend a minimum of 24" beyond the corners of the opening. Vertical bars shall extend from floor level below to the floor, or roof, level above. Where 24" extension is not possible, extend bars as far beyond the opening as possible and terminate them with a 90 degree standard ACI hook.
9. Provide 2 - #5 X 4'-0" diagonal bars (or 1 - #7 x 4'-0" bar in 10" walls and thinner) at the corners of all openings. Diagonal bars shall be centered on the corner of the opening. All recesses in concrete walls that interrupt reinforcing steel shall be reinforced the same as an opening.
10. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
11. All tied columns shall have ties spaced at one-half the required tie spacing for a distance of one-sixth of the column height above and below all floor (or beam) and roof (or beam) levels or any other point of lateral support, unless noted or detailed otherwise on the structural drawings.
12. Column cross-ties shall have a 135 degree hook at one end and a 90 degree hook at the other. The hooks shall engage the vertical column reinforcement. The 135 degree hooks of consecutive cross-ties engaging the same vertical bars shall engage alternate vertical bars.
13. Splices in vertical column reinforcing will be permitted at floor levels only, unless shown otherwise. Where changes in the cross section of the column occur, the longitudinal bars shall be offset in a region where lateral support is afforded. Where offset, the slope of the inclined portion of the bar shall not exceed 1 to 6 (horizontal to vertical). In the case of tied columns, the ties shall be spaced not over three inches on center for a distance of one foot above and one foot below the point of offset.
14. All reinforcement shall be bent cold, and shall be bent only once at the same location. All reinforcement shall be shop bent, unless otherwise permitted by the engineer.

F. Minimum Reinforcing: Wall reinforcing shall be as follows, unless noted otherwise:
Table with 3 columns: Wall Thickness, Horizontal Reinf., Vertical Reinf.
Rows include 6", 8", 10", 12", and Others (0.25% of Wall Area).

Place steel in the center of the wall (except in walls thicker than 10" and where shown otherwise). Walls thicker than 10" shall have two curtains of reinforcing (placed near each face of the wall), unless otherwise shown on the structural drawings. Spacing shall be three times the wall thickness nor 18". In addition to the above reinforcing, 2 - #5 (or 1 - #7 in 10" walls and thinner) x continuous horizontal bars shall be placed at the bottom of the wall (near the footing) and at each floor level, at the roof level and at the top of wall.

- G. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.
H. Unless otherwise noted, all slabs on grade shall be 4" thick.
I. Post-Tensioned Concrete
1. All post-tensioned concrete reinforcing shall be designed, detailed and constructed in accordance with ACI 318. Anchorages for post-tensioning tendons shall be designed in accordance with ACI 318 and shall have ICBO approvals. A copy of the ICBO test report shall accompany the shop drawings for review. Prestressing steel shall be wire for prestressed concrete, manufactured in accordance with ASTM A421, Type BA. Wire not specifically referenced in ASTM A421 may be used, provided it conforms to the minimum requirements of the specifications and has equivalent properties.
2. Tendons shall be protected from corrosion at all times by an approved coating. The coating shall remain ductile and free from cracks and shall not become brittle or fluid over the entire operating or anticipated range of temperatures, but shall be chemically stable, non-active, non-corrosive, and impervious to moisture. Prior to concreting all exposed or replaced sections of tendon shall be coated with a rust preventative petroleum based compound. The tendon shall be wrapped in a plastic coating and covered, a minimum of one layer, with chemical resistant tape.
3. Anchorages for post-tensioning tendons shall be designed in accordance with ACI 318 and shall have ICBO approvals. The anchorages for tendons shall be able to withstand the forces from jacking and anchorage. These are as follows:
Forces from jacking to overcome friction losses 0.80xPu.
Forces immediately after strand anchorage 0.70xPu.

- 4. Prior to tendon fabrication, the contractor shall submit calculations for the items listed below. Calculations shall bear the seal of a professional engineer licensed in the State of Utah and shall be submitted with the shop drawings for review.
a. The contractor shall submit calculations showing forces delivered and prestress losses that include computations for friction, seating, elastic shortening, shrinkage, creep, steel stress relaxation losses, and the resulting final anchorage stress or force, stamped and signed by a professional engineer licensed in the state of Utah for approval before installation of any post-tensioning materials.
b. Calculations shall determine the anticipated elongation for the tendons. Elongation calculations shall be submitted for:
(1) Each "pull" length that varies more than 30 feet from the typical lengths.
(2) Every "pull" length that is over 125 feet.
c. If actual tendon reels have a difference greater than two percent (2%) of the product of the modulus of elasticity (E) and the area (A) of the tendon, calculations and shop drawings shall be revised to indicate proper tendon quantity and tendon elongations. Shop drawings shall reflect specific computed values for elongations when the tendons are delivered with the Mill certificates.
5. Shop drawings shall be submitted prior to fabrication. The shop drawings shall show tendon locations, tendon spacing, inserts, and detail steel locations. They shall show all details of end anchorages, connections, blockouts or holes, inserts, stressing procedures and other related items prior to construction. The shop drawings will also show tendon forces, and anticipated tendon elongations for individual tendons. Special care must be taken to ensure that all materials and products are correctly identified and placed. (i.e. tendon materials so they relate to calculated elongations and forces).

- 6. The contract drawings indicate the effective post-tensioning forces for tendons are noted on the plans by the symbol "$\langle\langle 00.0K \rangle\rangle$". The forces indicated by these numbers are minimum forces. The quantity of tendons multiplied by the final anchorage force shall not be less than the values noted on the contract drawings.
7. All anchorages shall be held securely in place prior to casting into concrete. Minimum concrete cover to anchor shall be as follows:
Slab Edges 1-1/2"
Beam End 2"
8. All pockets required for anchorage shall be adequately reinforced, so as not to decrease the strength of the structure. Reinforcing steel adequate to control primary and secondary stresses under bearing plates shall be provided to suit the system employed.
9. Tendon placement and detailing:
a. Slight deviation in spacing of tendons is permitted where required to avoid openings and inserts, specifically located. Radius of curvature of horizontal deviation shall not be less than 21 feet. Tendons shall clear all openings or sleeves by a minimum of 3 inches. No sleeves shall be located within end quarter of the span near the supports or through shear heads. All sleeves shall be coordinated with the structural engineer prior to placement.
b. Drape tendons to a parabolic profile as shown on drawings between supports and conform to control points shown in the profiles. Dimensions locate the center of gravity of the tendon or group of tendons. Support bars and chairs shall be furnished to adequately hold tendons in place during concrete placement. Low points of tendons are at mid-span unless otherwise shown or noted.
c. The minimum vertical radius of curvature of tendons shall not be less than ten times the depth of the concrete section. Chairs for tendons are to be located at column lines (high points) and at the mid-span (low points). After a natural parabolic drape is achieved, provide additional chairs at 1/4 points for computing chair heights. Vertical deviations of tendon location at the high and low points shall be kept to within +/- 3/8 inch.
d. Placing contractor shall apply sufficient pull to tendon to give the proper draping effect. Edge forms shall be braced and anchored to resist the draping force.
e. Proper tendon location shall have priority over all other materials. Sufficient "Support Bars" (reinforcing steel not shown on plans) equivalent to #4 bars at 4'-0" maximum shall be provided to maintain the tendons in proper alignment.
10. The stressing operation shall be under the immediate control of a person experienced in post-tension concrete construction. He must exercise close control of the quality assurance methods and all other operations. His work will be independent of the owner's representative. If provided, the owner's representative will observe the placement of tendons prior to the placement of concrete, and stressing operations.
11. Jacking forces and elongations records shall be made by the contractor during the stressing operations. Calibrated gauge readings and tendon elongations shall be concurrently recorded during the stressing operations. Certified copies of the recorded gauge readings and elongations shall be promptly submitted to the architect.
a. The tendons shall be stressed according to the calibrated gauge readings. The measured tendon elongations shall be compared with the computed elongations during stressing and shall not vary by more than 5% of the calibrated values from the computed elongation value. If any comparisons exceed 5%, the cause for the difference shall be determined by the contractor and corrected to the engineer's satisfaction prior to proceeding with additional stressing.
b. No additional concrete shall be stressed until records of the concrete tests and the elongation records are reviewed by the architect for all previous floors.
c. Post-tension tendons shall be stressed the first workday after concrete has reached the stressing strength shown on the plans. Stressing shall not begin until evidence of adequate concrete strength has been reviewed by the architect/engineer.
d. Stressing sequence shall be determined by the post-tensioning supplier, unless noted otherwise. The post-tensioning supplier shall submit the stressing sequence, methods and procedures for stressing the tendons to their required force with the shop drawings.
e. The contractor shall submit jack calibrations with each jack. Jacks shall be clearly marked for identification of the calibrated gauge pressure. Jacks shall be recalibrated for each 50,000 square feet of slab area that is tensioned.
12. Grouts containing chloride shall not be used in the vicinity of the tendons, reinforcing steel or embedded steel.
13. Shoring design, sequencing, and placement shall be performed by a professional engineer licensed in the state of Utah. Shoring must remain in place until new post-tensioned concrete has reached 5,000 psi compressive strength and all restressing is complete and approved.
14. The contractor shall employ construction methods that allow for slab shortening where walls, columns or other rigid elements that would otherwise restrict shortening. Structural integrity of all elements shall be maintained. Particular care shall be taken to prevent cracking at all levels.
15. Grounding of welding equipment to tendons or reinforcing steel is not permitted.

IV. Masonry

- A. Materials, unless noted otherwise:
1. Concrete Masonry Units: Lightweight Grade N, Type 1 (minimum unit strength of 1,900 psi) or better. (fm = 1,500 psi)
2. Mortar: Use Type "S" according to IBC Section 2103.7, and tested every 5,000 square feet according to ASTM C270. Admixtures shall not be added to the mortar mix. (1800 psi minimum compressive strength for field specimens) Material testing shall be contracted by the owner.
3. Grout: Conform to IBC Table 2103.10 or ASTM C478. Proportioned according to IBC Section 2103.10 and tested every 5,000 square feet according to ASTM C1019. Grout shall attain a minimum compressive strength of 2000 psi at 28 days. Testing shall be contracted by the owner.
4. Reinforcing: Grade 60 reinforcing steel shall comply with ASTM A615.
5. Deformed Bar Anchors (DBA): All DBAs shall comply with ASTM A596.
6. Anchor Bolts (AB): ASTM A307 with ASTM A563 heavy hex nuts and hardened washers, Grade A, unless noted otherwise.
7. Headed Stud Anchors (HSA): Manufacture all HSAs in conformance with ASTM A108 with dimensions complying with AISI specifications.

- B. Construction Requirements:
1. Mortar Joints: Joints shall be "concave", "V-joint" or "weathered raked" for structural members unless noted otherwise on architectural drawings.
2. Masonry walls, beams and columns shall be constructed with running bond, unless noted otherwise.
3. Grouting Requirements: Comply with IBC Section 2104 and ACI 530.1/ASCE 6/IMS 602. Grout shall be mechanically consolidated and mechanically reconsolidated according to ACI 530.1/ASCE 6/IMS 602 Section 3.5 E.
4. Reinforcing Bars shall not be welded unless specifically shown on drawings. In such cases, use only AWS standards. Do not substitute reinforcing bars for DBAs or HSAs.
5. Control Joints: Spacing shall not exceed 40'-0". See architectural drawings for locations.
6. Grout all beam and joist pockets solid after installation of beams and joists.

- C. Detailing Requirements:
1. Standards: Reinforcing detailing shall comply with American Concrete Institute (ACI) Standard 315, "Details and Detailing of Concrete Reinforcement."
2. Reinforcement Protection (cover): Reinforcement shall have a minimum coverage of one bar diameter over all the bars, but not less than 3/4". When masonry is exposed to soil, minimum coverage shall be 1.5".
3. Vertical steel reinforcement shall be placed and secured against displacement prior to grouting by wire positioners or other suitable devices: at intervals not exceeding 112 bar diameters, at the grid lift heights, or at bar splice locations, whichever is less. Vertical reinforcing shall be located at the center of the wall, unless noted otherwise.
4. Lap Splice Lengths: Lap all masonry reinforcing a minimum of 48 bar diameters with a minimum lap of 24". Where adjacent bar splices are separated by 3" or less, lap splice reinforcing with a 63 bar diameter bar splice.
5. Corner Bars: Horizontal reinforcement shall be continuous at all corners and at intersecting walls. Provide corner bars with the required lap splice length and reinforcement.
6. Dowels: All vertical reinforcing shall be doweled to the foundation wall, footing (structure below) and to the structure above with the same size dowel, spacing (and in the same core) as the vertical wall reinforcing unless noted otherwise.
7. Wall Openings 24" wide and wider: Provide reinforced masonry lintels per Masonry Lintel Schedule over the top of, and 2 - #5 bars, in grouted spaces, on all sides and adjacent to every unscheduled opening, unless noted otherwise. Bars for all openings shall extend a minimum of 48 bar diameters beyond the corners of the opening. Vertical bars shall extend from floor level below to the floor, or roof, level above. Where a 48 bar diameter extension is not possible, extend bars as far beyond the opening as possible and terminate them with a 90 degree standard ACI hook.
8. Horizontal wall reinforcing shall be continuous through joining concrete walls, masonry walls, columns, and pilasters. Provide a key between the wall and the column or pilaster. Horizontal wall reinforcing shall be placed inside the column vertical reinforcing.
9. Anchor bolts and headed stud anchors shall be set in a grouted cell. Anchor bolts and headed stud anchors shall have 1" grout surrounding the shank at its penetration. Grout shall be flush with the face or top of the masonry.
10. All masonry column ties shall terminate with 135 degree hooks plus a 6 bar diameter extension (4" minimum).
11. The exposed face of all embed plates shall be set flush with the face of masonry wall or column.

KEYNOTE LEGEND

Table with 3 columns: MARK, DATE, DESCRIPTION. Includes entries for CONTRACT DOCUMENTS, March 7, 2005, and KEY PLAN.

State of Utah Department of Administrative Services, Division of Facilities Construction & Management, THE UNIVERSITY OF UTAH, MJSA, REBEVELLY ENGINEERS & ASSOCIATES, INC., IMPORTANT SEE GENERAL NOTES FOR INFORMATION ON FASTENING TO POST TENSIONED SLAB (AGO-01), MARCH 2005 BID SET, University of Utah Salt Lake City, Utah, Marriott Library Renovation, GENERAL STRUCTURAL NOTES, SE0-1 75 OF 504



THE UNIVERSITY OF UTAH
SCHOOL OF ARCHITECTURE
CAMPUS DESIGN AND CONSTRUCTION
1700 SUTHERLAND DRIVE
SALT LAKE CITY, UT 84143
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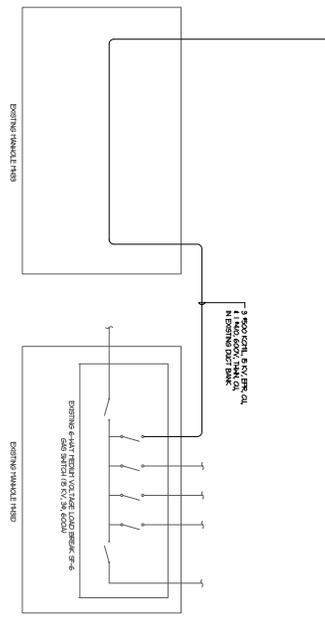
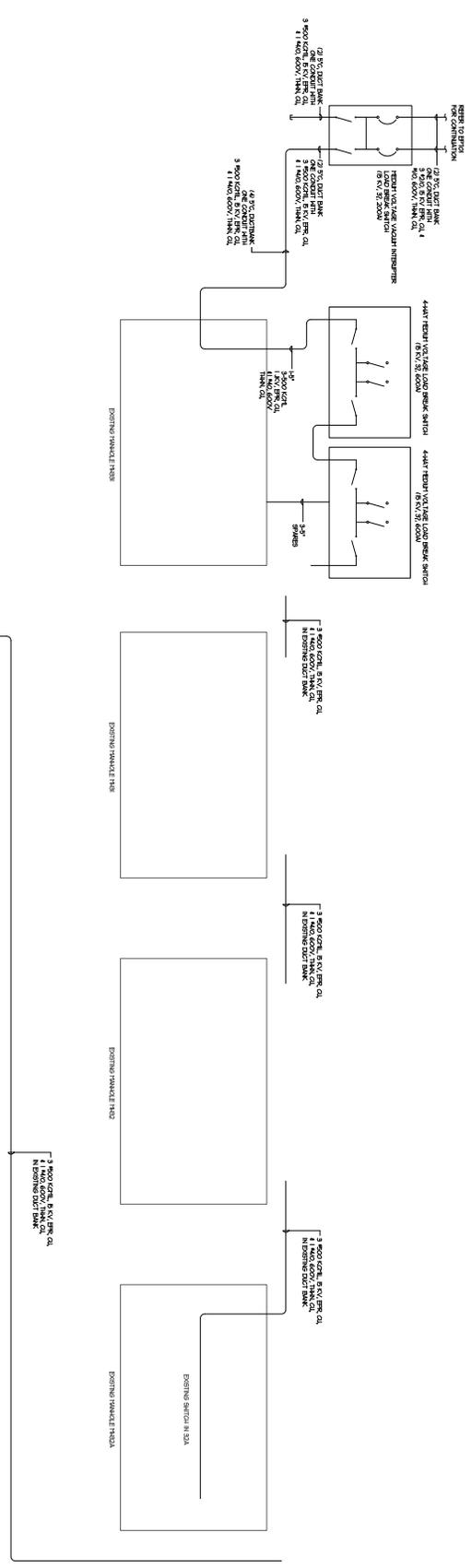
GRAMOLL CONSTRUCTION
1015 EAST 1000 SOUTH
SALT LAKE CITY, UT 84143
PHONE: (801) 487-1111
WWW.GRAMOLLCONSTRUCTION.COM

Caroly'n Tanner Irish
Humanities Building
at the University of Utah
215 S. CENTRAL CAMPUS DR.
SALT LAKE CITY, UT 84112

MARK	DATE	DESCRIPTION
△	5-14-07	ESI #2
△	7-18-07	ESI #3
△	7-27-07	ESI #4
△	11-29-07	ESI #6
△	1-20-08	LIGHTING REVISIONS
△	2-22-08	ESI #10
ISSUE DATE: 1-5-07		
27/807 PROPOSAL PACKAGE #2 -		
UNIVERSITY OF UTAH HUMANITIES BUILDING		
DCOM JOB # 05198750		
ARCHITECT'S JOB #		
506-011		
SHEET TITLE		

ONE-LINE DIAGRAM

SHEET NUMBER: EP702



1 ONE-LINE DIAGRAM
STATUS NONE ELECTRICAL CONNECTION

THESE RECORD DOCUMENTS HAVE BEEN PREPARED BY MEET ARCHITECTURE AND ENGINEERING, INC. THE DESIGNER HAS REVIEWED THESE RECORD DOCUMENTS AND HAS DETERMINED THAT THEY ACCURATELY REPRESENT THE WORK BEING INCORPORATED HEREIN AS A RESULT.

EXHIBIT A4



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

Utah Olympic Legacy Foundation

- Site Identification TBD
- RMP Billing Information

DFCM Project No. 13055300

Issue Date: April 30, 2013

Utah Olympic Oval - 795 kW Solar Array

5662 Cougar Ln Salt Lake City, UT 84118

Phone: 801-957-4111

www.utaholympiclegacy.com

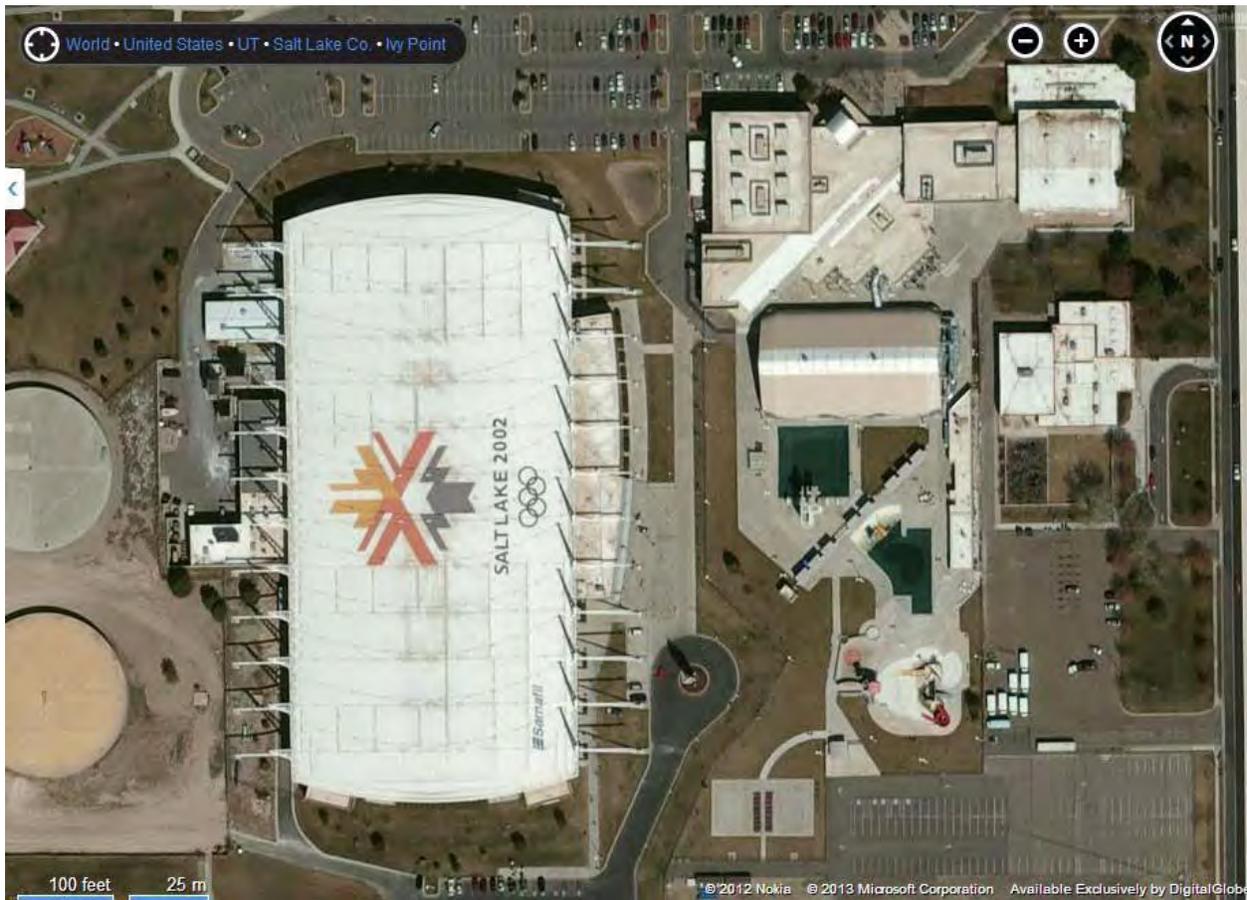


Figure 1 Olympic Oval Complex

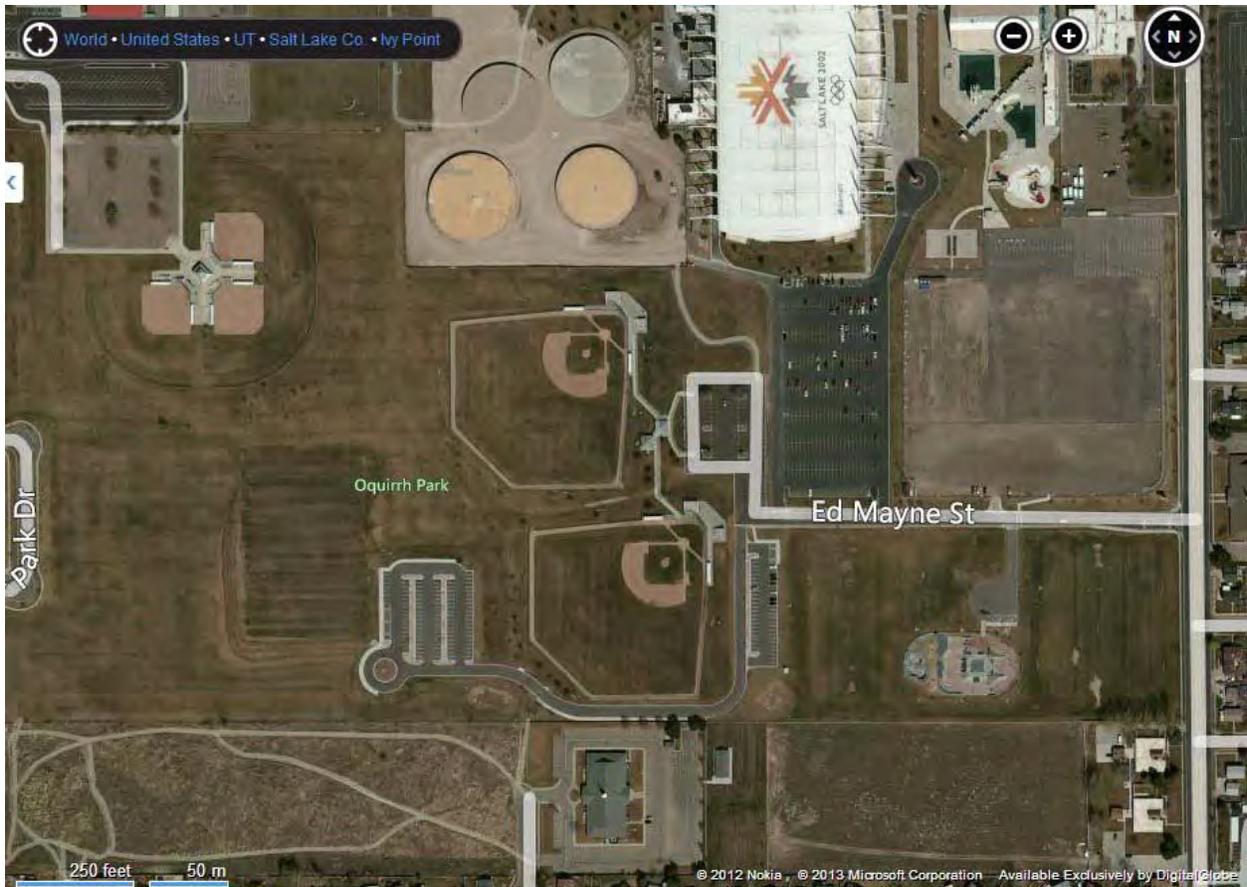


Figure 2 Olympic Oval and Surrounding Area

The roof of the Utah Olympic Oval itself is unsuitable for solar PV. The exact location of the solar system is to be determined.

Billing Information

A recent Power bill is attached.



UTAH ATHLETIC FOUNDATION
STEPHANIE WIMBERLY
5662 S 4800 W
KEARNS UT 84118-6055

Inquiries? Call your Business Solutions Team
toll free 1-866-870-3419, M-F, 7am-7pm MT
www.rockymountainpower.net

BILLING DATE: **Apr 2, 2013**
ACCOUNT NUMBER: **31938933-002 2**

DATE DUE: Apr 24, 2013
AMOUNT DUE: \$49,757.87

Your Balance With Us

Previous Account Balance	45,865.11
Payments/Credits	-45,865.11
New Charges	+49,757.87
Current Account Balance	\$ 49,757.87

Payments Received

DATE	DESCRIPTION	AMOUNT
Mar 19, 2013	Payment Received - Thank you	45,865.11
Total Payments		\$ 45,865.11

Summary of Account Activity

ITEM 2 ELECTRIC SERVICE	5602 S 4800 W Kearns UT Sp-2002 Olym Acct Skating Oval Schedule 6 METER # 35924508	16,124.60
ITEM 3 ELECTRIC SERVICE	5790 S 4800 W Kearns UT Elec Sign For Oly Skating Oval Schedule 23 METER # 51112056	151.76
ITEM 6 ELECTRIC SERVICE	5602 S 4800 W Kearns UT Sp-2002 Olympic Acct Schedule 8 METER # 35704923	33,481.51
ITEM 7 CONTRACT	5602 S 4800 W Kearns UT Energy Profiler Online Annual Subscription 2 Meters Schedule RFA	0.00

If you find yourself in a position in which you are not able to pay your electric bills, we encourage you to contact us at 1-888-221-7070. We have a variety of options to help.

Manage your energy use with our Business Solutions Toolkit. It provides industry-specific tips and tools to help you make sound energy decisions and reduce demand. Find the Toolkit at rockymountainpower.net/toolkit

70025.221.119
Power Bill
4/5/13
POSTED

APR 08 REC'D

See reverse

Late Payment Charge for Utah
A late payment charge of 1% may be charged on the delinquent balance per month.

Write account number on check & mail to: Rocky Mtn Power, 1033 NE 6th Ave, Portland, OR 97256-0001 RETAIN THIS PORTION FOR YOUR RECORDS.



Questions about your bill: Call toll free 1-866-870-3419 www.rockymountainpower.net

BILLING DATE: **Apr 2, 2013** ACCOUNT NUMBER: **31938933-002 2** DATE DUE: **Apr 24, 2013** AMOUNT DUE: **\$49,757.87**

Detailed Account Activity

ITEM 2 - ELECTRIC SERVICE

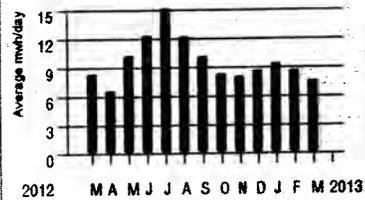
5602 S 4800 W Kearns UT
Sp-2002 Olym Acct Skating Oval Schedule 6

METER NUMBER	SERVICE PERIOD		ELAPSED DAYS	METER READINGS		METER MULTIPLIER	AMOUNT USED THIS MONTH
	From	To		Previous	Current		
35924508*	Feb 28, 2013	Mar 31, 2013	31	24776	25566	300.0	237,000 kwh
35924508	Feb 28, 2013	Mar 31, 2013	31	16136	16688	300.0	165,600 kvarh
35924508	Demand	Mar 31, 2013			1.621	300.0	486 kw
Power Factor Adjustment							29.0000 kw
Power Factor							0.8197

Next scheduled read date: 04-29. Date may vary due to scheduling or weather.

NEW CHARGES - 03/13	UNITS	COST PER UNIT	CHARGE
Basic Charge - 3P			53.00
Demand Charge	515 kw	14.2000000	7,313.00
Energy Charge	237,000 kwh	0.0345980	8,199.73
Renewable Energy Credit		-0.0023000	-35.68
Energy Balancing Account		0.0123000	190.81
Customer Efficiency Services		0.0326000	510.77
Customer Effic Services Offset		-0.0074000	-115.94
Home Electric Lifeline Program			8.91
Total New Charges			16,124.60

Historical Data - ITEM 2



2012 M A M J J A S O N D J F M 2013

Your Average Daily kwh Usage by Month

PERIOD ENDING	MAR 2013	MAR 2012
Avg. Daily Temp.	44	49
Total kwh	237000	261600
Avg. kwh per Day	7645	8439
Cost per Day	\$520.15	\$495.74



Questions about your bill: Call toll free 1-866-870-3419 www.rockymountainpower.net

BILLING DATE: **Apr 2, 2013** ACCOUNT NUMBER: **31938933-002 2** DATE DUE: **Apr 24, 2013** AMOUNT DUE: **\$49,757.87**

ITEM 3 - ELECTRIC SERVICE

5790 S 4800 W Kearns UT
Elec Sign For Oly Skating Oval Schedule 23

METER NUMBER	SERVICE PERIOD		ELAPSED DAYS	METER READINGS		METER MULTIPLIER	AMOUNT USED THIS MONTH
	From	To		Previous	Current		
51112056	Feb 6, 2013	Mar 7, 2013	29	53486	54788	1.0	1,302 kwh

Next scheduled read date: 04-05. Date may vary due to scheduling or weather.

NEW CHARGES - 03/13	UNITS	COST PER UNIT	CHARGE
Basic Charge - 1P			10.00
Energy Charge 1st 1500 Kwh	1,302 kwh	0.1045040	136.06
Renewable Energy Credit		-0.0023000	-0.31
Energy Balancing Account			
for 7 day(s)		0.0130000	0.43
for 22 day(s)		0.0109000	1.13
Customer Efficiency Services		0.0343000	4.71
Customer Effic Services Offset			
for 7 day(s)		-0.0078000	-0.26
for 22 day(s)		-0.0043000	-0.45
Home Electric Lifeline Program			0.45
Total New Charges			151.76

ITEM 6 - ELECTRIC SERVICE

5602 S 4800 W Kearns UT
Sp-2002 Olympic Acct Schedule 8

METER NUMBER	SERVICE PERIOD		ELAPSED DAYS	METER READINGS		METER MULTIPLIER	AMOUNT USED THIS MONTH
	From	To		Previous	Current		
35704923	Feb 28, 2013	Mar 31, 2013	31	32602	33993	160.0	222,560 onkwh
35704923	Feb 28, 2013	Mar 31, 2013	31	51076	52772	160.0	271,360 offkwh
35704923	Feb 28, 2013	Mar 31, 2013	31	39125	40526	160.0	224,160 kvarh
35704923	Demand	Mar 31, 2013			6.282	160.0	1,005 onkw
35704923	Demand	Mar 31, 2013			6.227	160.0	996 offkw

Next scheduled read date: 04-29. Date may vary due to scheduling or weather.

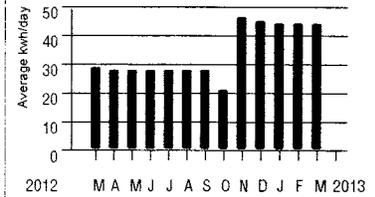
NEW CHARGES - 03/13	UNITS	COST PER UNIT	CHARGE
Basic Charge - 3P			66.00
On Peak Demand Charge	1,005 onkw	10.5400000	10,592.70
Facilities Charge	1,005 kw	4.4800000	4,502.40
Energy Charge - On Peak	222,560 onkwh	0.0374560	8,336.21
Energy Charge - Off Peak	271,360 offkwh	0.0322980	8,764.39
Renewable Energy Credit		-0.0028000	-77.54
Energy Balancing Account		0.0160000	443.09
Customer Efficiency Services		0.0320000	1,041.96
Customer Effic Services Offset		-0.0073000	-237.70
Home Electric Lifeline Program			50.00
Total New Charges			33,481.51

ITEM 7 - CONTRACT

5602 S 4800 W Kearns UT
Energy Profiler Online Annual Subscription 2 Meters Schedule RFA

Total New Charges **0.00**

Historical Data - ITEM 3

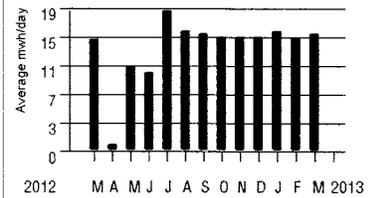


2012 M A M J J A S O N D J F M 2013

Your Average Daily kwh Usage by Month

PERIOD ENDING	MAR 2013	MAR 2012
Avg. Daily Temp.	30	37
Total kwh	1302	834
Avg. kwh per Day	45	29
Cost per Day	\$5.23	\$3.21

Historical Data - ITEM 6



2012 M A M J J A S O N D J F M 2013

Your Average Daily kwh Usage by Month

PERIOD ENDING	MAR 2013	MAR 2012
Avg. Daily Temp.	44	49
Total kwh	493920	466080
Avg. kwh per Day	15933	15035
Cost per Day	\$1,080.05	\$924.90

When you provide a check as payment, you authorize us to use the information from your check either to make a one-time electronic fund transfer from your account or to process the payment as a check transaction. If you would like to opt out of this program and continue processing your payment as a check transaction, please call anytime toll free at 1-800-895-0561. If you have opted out previously, please disregard this message.

EXHIBIT A5



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

Utah National Guard Headquarters, Draper, UT

- Site Identification
- System Location and Preliminary Lay-out

DFCM Project No. 13055300

Issue Date: April 30, 2013

Disclaimer

The intent of this exhibit is to estimate the potential solar power generation capacity of the Draper National Guard roof and to give guidance to potential bidders with respect to the available space, the obstacles that may cause shading and electrical infrastructure.

A structural analysis has NOT been carried out.

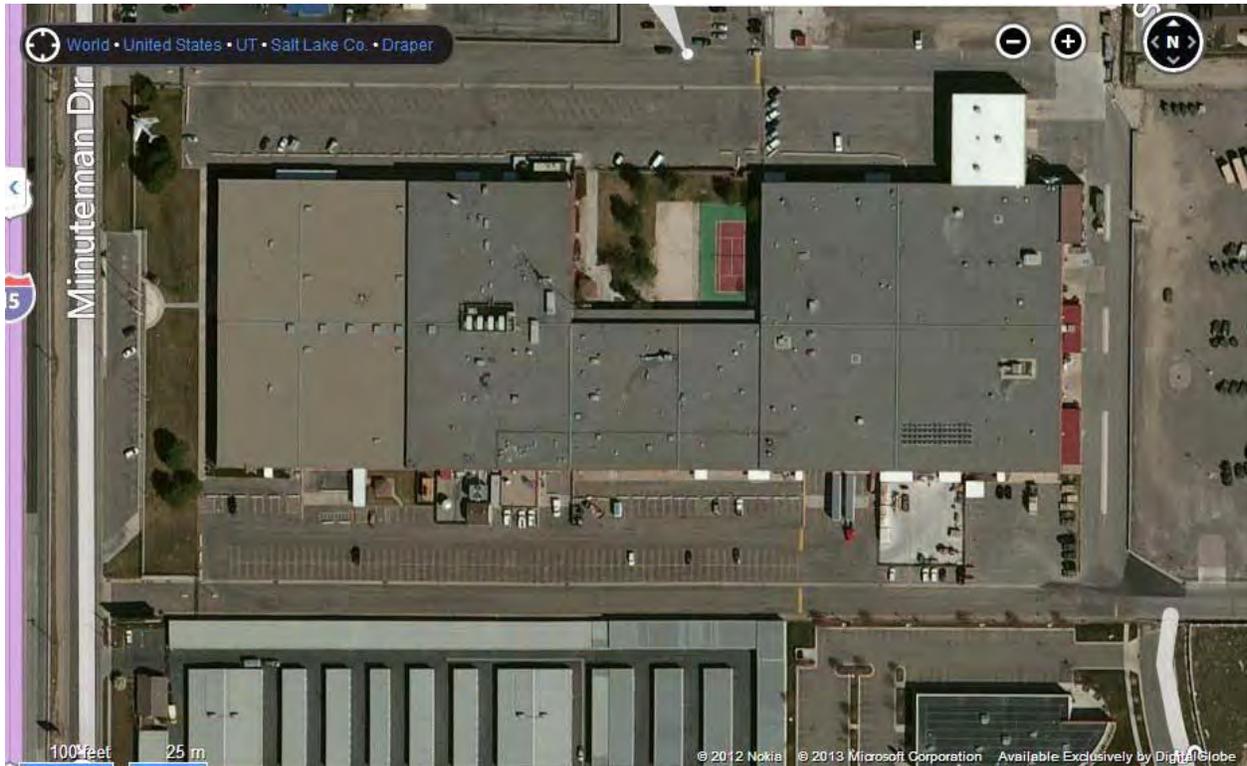
This report is NOT intended to serve as a detailed engineering design document. It should be noted that detailed structural and electrical design is still a requirement and a full design package is expected for submittal to the client and the various permitting agencies.

While the recommendations in this report have been reviewed for technical accuracy and are believed to be reasonably accurate, the findings are estimates and actual results may vary. As a result, BacGen is not liable if estimated production estimates are not actually achieved. All production and cost estimates in the report are for informational purposes, and are not to be construed as a design document or as guarantees.

The customer should independently evaluate any advice or direction provided in this exhibit. In no event will DFCM, BacGen or its associates be liable for the failure of the customer to achieve a specified electricity production, the operation of customer's facilities, or any incidental or consequential damages of any kind in connection with this exhibit or the installation of recommended projects.

Utah Army National Guard, Draper Headquarters (800-900 kW Solar Array)

12953 S Minuteman Dr, Draper 84020



The roof of the headquarters building of the Army National Guard in Draper is 372,649 sq ft (about 928 ft in the EW direction and 330 ft in the NS direction).

There are a substantial number of obstacles on the roof, therefore a 'modular' racking system is recommended. Roof plan drawings showing the obstacles are not available. Satellite imagery was used for the draft layout in this Exhibit.

The roof is a ballasted roof system. The age of the roof is unknown. The roof looks in good condition.

A small solar system was placed on the roof several years ago (4 strings of 14 modules, about 14 kW_{DC}) (see **Figures 1 and 2**). Note that the existing solar array has a ballasted racking system.

Figures 3 – 7 show various aspects of the roof.



Figure 1 Existing Solar Array



Figure 2 Existing Solar Array Side View



Figure 3 Southeast Side of the Roof, Looking West



Figure 4 Northeast Side of the Roof, Looking East



Figure 5 Midway, Looking East



Figure 6 Midway, Looking East



Figure 7 West Side of the Roof, Looking West

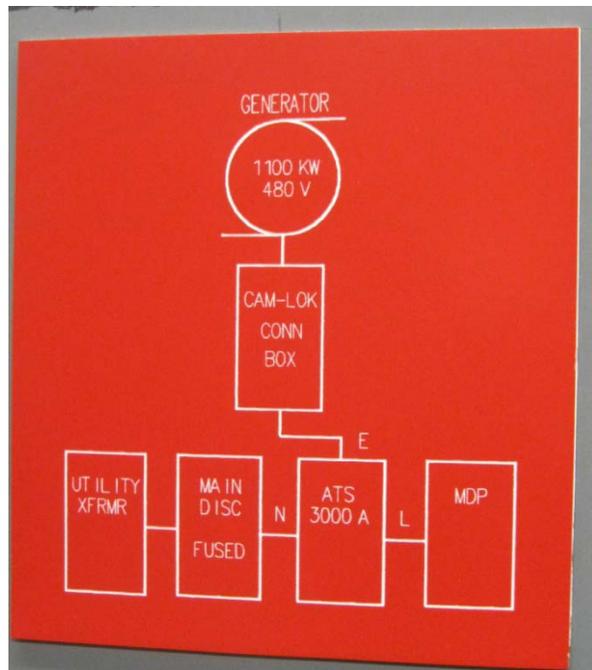


Figure 8 Main Electrical Panel Configuration (both North and South, although North Generator is now a Larger Size)



Figure 9 Transformer, Switchgear and Transformer on the North Side



Figure 10 Transformer and Switchgear on the South Side

Electrical Infrastructure

Please note the following:

- There are two main feeders to the building (north and south). Both have a generator, 1,100 kW on the South and (larger, newer) on the North side.
- The voltage is 3 phase 480 V.
- The annual electrical consumption is approximately 5,000,000 kWh/y.
- There is room for the inverter on the north side close to the switch gear/transformer units.

Preliminary Module Count

Based on satellite imagery, the solar roof capacity in terms of number of standard solar modules was estimated (**Figure 12**). It was assumed that the configuration of the modules would be modular, in landscape orientation, at 10-15° tilt. (The existing array module tilt is slightly higher and the rows are spaced slightly wider than assumed in the layout below).

The total number of modules estimated in **Figure 12** is 3,638 #, so conservatively, a 900 kW solar array would fit on the roof.

A structural analysis has not yet been carried out.

Vendors should be aware of significant snow fall in Salt Lake City in the winter and the trade-off between module tilt, snow accumulation, module/row spacing and sun angle (summer and winter).



Figure 11 Preliminary Module Count on the Draper Headquarters Roof

EXHIBIT B



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

Solar Electric Facility Installation Requirements and Material Specification

DFCM Project No. 13055300

Issue Date: April 30, 2013

Contents

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1.0 Purpose

This Solar Electric Installation Requirements document details the requirements and *minimum* criteria for a solar electric (“photovoltaic” or “PV”) system (“System”) installed by a solar electric facilities contractor, licensed in Utah, for the Division of Facilities Construction and Management (“DFCM”).

Where local code or contract specifications call for standards other than those incorporated herein, the standard deemed by local building official and or the authorized State of Utah contracting and code authorities to be the more rigorous, shall supersede.

The purpose of these installation requirements is to help promote the performance and longevity of systems installed on State or State affiliated buildings or landholdings, or that of its direct or indirect agencies. DFCM specifically reserves the right to require compliance with installation specifications that may exceed manufacturer or code requirements. Final design specifications, including any variations from the installation requirements called out herein, shall be mutually approved and receive prior written approval from the authorized DFCM agent(s).

2.0 System Requirements

2.1 General

2.1.1 System shall be grid-connected and installed on real property in Utah that receives electrical service directly from Rocky Mountain Power, a Local Electrical Utility recognized by the Utah Public Service Commission, or a mutually agreed provider.

2.1.2 System shall meet local utility interconnection and net metering requirements, as applicable.

2.1.3 The installation shall be of industry standard and workmanlike quality.

2.1.4 System should be designed for optimal annual performance, without sacrificing aesthetics, and design shall be mutually agreed. **See Section 2.5.**

2.1.5 System design shall be documented with a schematic diagram that accurately describes all electrical components to be installed and the wiring design. Diagram should include:

- Module series/parallel wiring
- Conductor and ground wire types and sizing
- Conduit types and sizing
- Voltage drop calculations
- AC breaker sizing

2.1.6 System shall be properly permitted, inspected, and in compliance with all applicable State of Utah building and electrical codes, including but not limited to those listed in the DFCM Design Standards.

2.1.7 System equipment installers shall be licensed according to the Utah Building Codes Division and shall be directly licensed, or working for a contractor that is licensed according to the Utah Construction and Contractors Board.

2.2 Materials

2.2.1 Materials used outdoors shall be sunlight/UV-resistant and listed for outdoor locations.

2.2.2 Materials used shall be designed to withstand the temperatures to which they are exposed.

- 2.2.3 Dissimilar metals that have galvanic action (such as aluminum and steel) shall be isolated from one another using industry standard practices (such as non-conductive shims, washers, or other methods).
- 2.2.4 Aluminum shall not be placed in direct contact with concrete materials.
- 2.2.5 Only stainless steel fasteners shall be used. The fasteners shall be coated with an anti-seize lubricant to prevent galling and allow for ease of removal during system maintenance or repair.
- 2.2.6 Structural members shall be either:
- High general corrosion resistance/SCC resistant aluminum, with characteristics suitable for marine environments. Clear anodizing is preferred.
 - Hot-dip galvanized steel per ASTM standard A123 equivalent or better.
 - Stainless steel (recommended for all environments).

2.3 Equipment and Installation

- 2.3.1 All installed system components shall be new.
- 2.3.2 All components shall be mounted securely.
- 2.3.3 All electrical equipment shall meet appropriate current electrical standards and shall be listed by a nationally recognized testing laboratory (e.g. UL, ETL).
- Inverters shall meet IEEE 929, 1374 and 1547 (listed to UL 1741) or their successor standards and shall have been certified by the [California Energy Commission](http://www.gosolarcalifornia.ca.gov/equipment/inverter.php) (<http://www.gosolarcalifornia.ca.gov/equipment/inverter.php>).
 - Photovoltaic modules shall meet IEEE 1262 (listed to UL 1703) or their successor standards and shall have been certified by the [California Energy Commission](http://www.gosolarcalifornia.ca.gov/equipment/pvmodule.html) (<http://www.gosolarcalifornia.ca.gov/equipment/pvmodule.html>)
 - 2.3.4 Manufacturer warranties shall cover:
 - Inverter for a minimum of 10 years against manufacturer's defects
 - PV modules for a minimum of 20 years against degradation of performance below 80% of original output under standard test conditions
- 2.3.5 All electrical equipment shall be listed for the voltage and current ratings necessary for the application, reference 2011 NEC (NFPA 70) and 2009 IEC, or supercedents.
- 2.3.6 Equipment shall not be modified such that it voids the listing or manufacturer warranty.
- 2.3.7 All required over-current protection shall be included in the system and accessible for maintenance. The inspection or maintenance of combiner or feed through junction boxes shall not require the removal or displacement of modules or other obstructions.
- 2.3.8 A listed means of disconnection from all sources of power (both AC and DC) shall be provided such that inverter source and output circuits can be safely isolated for service or in an emergency. Disconnects shall be designed to be switched under load without an arcing hazard (e.g., blade-type or circuit breaker). Pull-out style disconnects shall not be used.
- 2.3.9 All electrical terminations shall be torqued to specification, secured, and strain-relieved as appropriate. Wire ends shall be coated with anti-corrosive compound prior to termination.
- 2.3.10 All cables, conduit, exposed conductors, and electrical boxes shall be secured and supported according to code requirements and in accordance with their performance ratings (i.e. NEMA).
- 2.3.11 Array equipment grounding conductors (EGC) and DC grounding electrode conductors (GEC) shall be copper and shall be either minimum 6 AWG or protected from physical damage and sized to conform to applicable Utah Electrical Codes, reference 2011 NEC (NFPA 70) and 2009 IEC, or supercedents:
- EGC shall be sized and protected according to applicable Utah code.
 - GEC shall be sized and protected according to applicable Utah code
 - If a single conductor is used for the EGC and GEC, conductor sizing and protection shall conform to all applicable Utah codes, or referenced codes. Contractor is responsible for identifying any additional code sections that may apply. For most applications, a 6 AWG conductor will be the minimum required to meet code.

2.3.12 Twist-on wire connectors shall not be used on DC conductors or ground wires. Instead, these wire connections shall be made using terminal strips in combiner boxes, feed through blocks in junction boxes, or other similar mechanical wire splicing devices. When outdoors or exposed to moisture, twist-on wire connectors used for AC connections shall be listed for usage in a damp/wet location.

2.3.13 Junction boxes and combiner boxes shall be listed and suitable for their environment and conditions of use.

2.3.14 Permanent labels shall be applied to system components as required by the applicable Utah Electrical Codes, or referenced codes.

2.3.15 Disconnect switch cover plates (not switch handles) shall be secured closed for safety (i.e. padlock, zip tie, etc.).

2.3.16 Micro-inverters shall be installed to meet the requirements of this document and all applicable codes, and shall:

- Include the installation of manufacturer-provided equipment that allows local monitoring of system performance and identification of inverter errors.
- Have appropriate AC disconnect switch at each inverter output circuit junction box to provide isolation for each string of inverters.

2.4 Array Mounting

2.4.1 **Subject to project specific requirements**, which should be fully understood by installer, if the solar array will be roof-mounted, the roofing material shall have a minimum of 15 years of useful life remaining to ensure the roof will not need repair or replacement early in the System's operational life. Contractor shall be responsible for verification of roof condition and suitability, and if in question, evidence of this requirement may be met by providing either a copy of a recent roof inspection or a receipt showing the date of the most recent roof replacement.

2.4.2 If roof-mounted, the roof system must be capable of handling the additional load of the System. Augmentation of the structure may be required by prevailing building codes.

2.4.3 Subject to project specific requirements, the array racking and mounting systems shall be engineered and installed to meet local wind, snow and seismic load requirements.

2.4.4 Unless specifically called out in project specifications, all roof penetrations shall be made watertight using roofing industry-standard methods of flashing that protect the warranty of the roof. Sealant compounds used shall be appropriate for the roofing material and application and shall not be the sole method of waterproofing.

2.4.5 All mounting hardware shall be installed according to manufacturer specifications.

Special Mounting Requirements for University of Utah Projects

Vendors should note that the University of Utah places very special requirements for racking systems and module configuration, as follows:

Solar PV Systems Mounted on University roofs must:

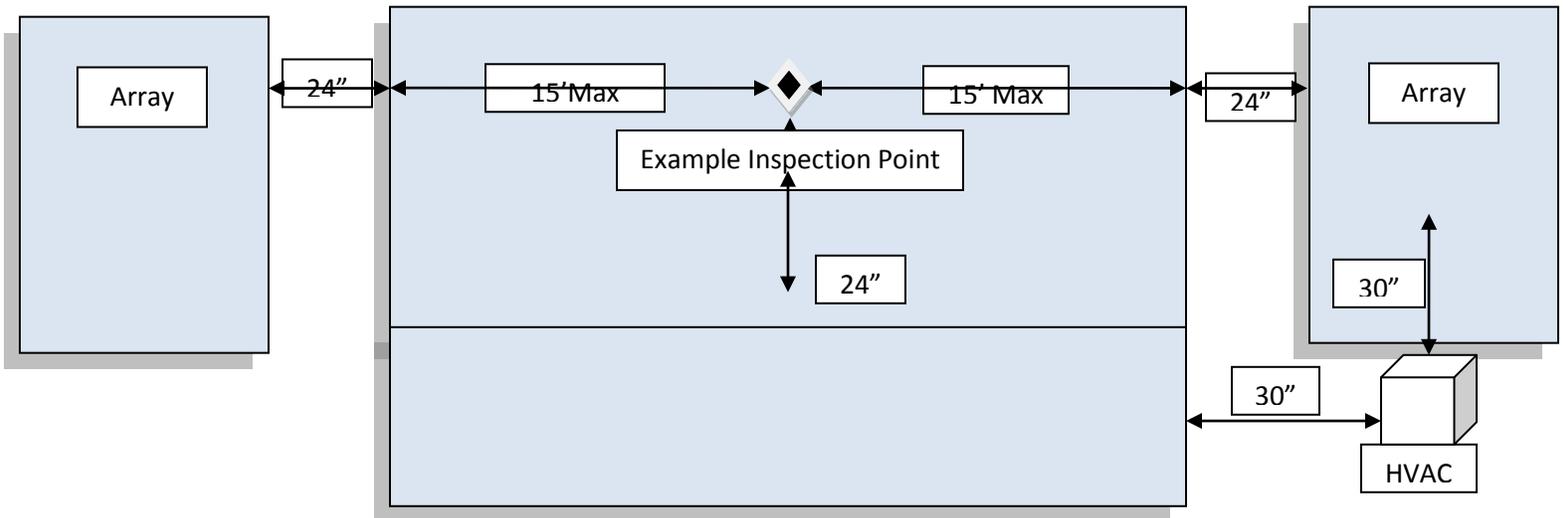
1. Be Structurally Attached (no ballasted systems). Bearing points are allowed, but system must be attached to structure and engineered for seismic and wind loading.
2. Maintain Roof Warranty:
 - a. All roof penetrations to have manufacturer-approved flashings, and manufactured flashings are preferred over field fabricated. Also, membranes around penetrations shall mechanically terminate 8" inches minimum above the roof membrane, unless otherwise approved by the University.

- b. Any bearing pads must allow ease of visual inspection under the pad and have both roof manufacturer and University approval.
- c. Paths to equipment shall be maintained or redirected if an obstruction through the path results from the installation of the panels.
- d. Provide written documentation that roof warranty(s) will not be compromised by the installation or maintenance of the PV system.

Roof Installation and Maintenance Plan: Parameter Sketch

- 3. Racking systems must allow ease of visual inspection of roof membranes, and access to roof surface for repair. The following specifications are acceptable.
 - a. Panels installed with 12” or greater clearance above the roof surface, shall allow 24” aisles between each row of panels, permitting access for hands-and-knees roof surface inspection.
 - b. There shall be a 30” minimum aisle width to all roof equipment and roof penetrations (HVAC equipment, drains, vents, etc.). Subject to specific equipment requirements, design must ensure that clearance requirements for maintenance on rooftop systems will be maintained.
 - c. Where high rack-to-roof clearances, e.g., 24+”, may be impractical due to cost, structural or architectural issues, or where very low profile/tilt angle will be necessary for building aesthetics, the University will consider other reasonable options, as long as such proposals specifically allow for expedient ease of visual roof inspection and access to structural attachments and bearing points with minimal tools.

If adequate roof surface clearance permitting hands and knees inspection is allowed within the design, no point under an array shall be greater than 15’ from any aisle/access point. Please see sketch below:



Special Mounting Requirements for SLCC Project

- There is a preference that the racking system have round tubular stand-offs, although subject to racking supplier upholding roof warranties and complying with all other requirements listed below, DFCM will consider other viable racking system proposals.
- The bottoms of the tubing be filled with closed cell foam to help minimize the thermal bridging.

- All racking system open ends be capped and water tight to prevent rust and water intrusion below the membrane.
- Require that the solar contractor and roofing contractor coordinate location of walkoff pads.
- All work on the roof must meet NRCA standards
- All work of the roof must not violate the roofing membrane warranty and comply with SLCC and DFCM standards.
- All flashings and repair work to be performed by the original roofing contractor as to not violate the roof warranty.
- Any exposed ferrous metal be “hot dipped galvanized” with no field painting. Aluminum would also be a suitable support material

2.5 Solar Access

2.5.1 Solar resource shall be measured with an approved shading analysis tool from the point on the collector(s) where shading is most significant. Currently approved are reports generated from either the **Pathfinder Site Analysis Tool Assistant Software, Solmetric SunEye Shading Analysis Tool, or the Wiley ASSET Solar Site Evaluation Tool**. Other analysis tools may be approved from time to time or accepted by prior written approval for specific projects.

2.5.2 Total Solar Resource Fraction (“TSRF”) shall be 75% or greater at all points on the array.

2.5.3 It is recommended that the System be installed in as aesthetic a manner as is possible, and in a manner that blends well with the building architecture. System installation design and specifications shall be mutually approved by the authorized DFCM authority prior to submission for permits. Small trade-offs in system performance due to sub-optimal tilt and orientation may greatly enhance the aesthetics of the installation and thereby increase long term public support for solar.

2.6 Performance

2.6.1 Array shall be sized to operate within the current, voltage and power limits approved and warranted by the inverter manufacturer. The temperature-adjusted array voltage shall remain within the inverter limits at the historical record high and record low temperatures for the location where System will be installed. When calculating voltage at record high temperature, the appropriate adder from the table below shall be used. Systems on a roof that are tilted up 10° or more from the roof plane may be considered “Rack” mounted.

Temperature Adders for High Temperature Voltage Calculation - Array Mounting Temperature Adder

- Roof 35 °C
- Rack 30 °C
- Pole 25 °C

2.6.2 Wires shall be sized to keep voltage drop at or below 2% in the DC conductors from the array to the inverter, including the existing wire whips on the PV modules. Voltage drop will be calculated using temperature-adjusted V_{mp} (max power voltage) of the array for the location’s average high temperature.

2.6.3 Wires also shall be sized to keep voltage drop at or below 2% in the AC conductors from the inverter to the service panel to maintain the AC voltage within the inverter’s operating limits.

2.6.4 Voltage mismatch caused by partial shading of the array, different orientations of strings within the array and or by variations in module voltages, shall be minimized, allowing the inverter to operate within its maximum power point window.

2.7 Output Meter

2.7.1 A “revenue quality” electric meter which meets the following specifications shall be installed on the AC output of the System, which measures ONLY the AC output of the PV array(s). Refurbished meters may not be used.

- ANSI C-12 tested and certified revenue meter
- Electromechanical meters accurate to within 2% of actual system output (ANSI C-12.10)
- Electronic meters accurate to within 1% of actual system output (ANSI C-12.16)
- One of the following configurations
 - Single-phase 120 volt – Form 1S – Class 100
 - Single-phase 240 volt – Form 2S – Class 200
 - Three-phase 120-480 volt – Form 14-16S – Class 200
- Meter warranty of not less than 1 year

2.7.2 Multiple-inverter systems may either combine output through a dedicated sub-panel from which the output is metered, or use one electric meter for each inverter.

2.7.3 Because the meter may be located near the utility meter, the solar system meter shall have a UV-resistant label, clearly identifying it as the Solar Generator Output.

2.7.4 All meters shall be set at 000000 or 999999 at time of shipment to the installer to ensure accurate and consistent “start” readings for every system.

2.8 Battery-Based Systems – Where Applicable

2.8.1 Batteries shall be located in a secure enclosure that meets seismic requirements and is weatherproof as needed.

2.8.2 Access to live battery terminals shall be limited per State of Utah specified Electrical Codes.

2.8.3 Flooded lead acid batteries shall be housed in an enclosure with adequate spill containment and vented to the outdoors, with a nearby clearly marked safety kit.

2.8.4 Battery interconnect and inverter cables shall be properly sized, with secured crimps and lugs on ends. Lugs and terminals shall be listed for the wire type used.

2.8.5 Charge controller and inverter settings shall be appropriate for the installation’s batteries, and set for grid-tied optimum performance.

2.8.6 Temperature compensation probes for inverter and/or charge controller shall be installed to control battery charge properly.

2.8.7 Array configuration shall operate within current and voltage limits of charge controller, accounting for temperature-adjusted array voltage under record high and low temperatures for that location.

2.8.8 For hybrid systems utilizing wind or micro-hydro turbines in addition to PV, battery overcharge protection using turbine regulation and/or diversion controller and diversion load shall be installed.

2.8.9 Ground fault protection shall be added to the System if required by code and not included in the inverter.

2.8.10 Customer manual shall include instructions for operation, maintenance and safety procedures for batteries, charge controller and inverter.

2.8.11 AC output meter shall be of the 5-jaw type, and correctly wired to meter power flows to both utility and AC loads.

3.0 Customer Manual

Upon completion of installation, installer/contractor shall provide the system owner and site owner, if separate entities, with a manual (the “Customer Manual”) and fully instruct the owner on proper system operation and maintenance.

The Customer Manual shall provide accurate system documentation for the current system owner, as well as future owners and potential service personnel. The Customer Manual shall be bound in a durable and professional-looking binder, and shall contain, at minimum, three sections: 1) System Design and Operation, 2) Warranties and Installation Documentation, 3) Manuals and Data Sheets.

3.1 Section 1 — System Design and Operation

- System Overview Page

An overview page that summarizes the system’s operating conditions and provides emergency information.

- Operation & Maintenance Instructions

Installer’s written instructions for system start-up and shutdown procedures, troubleshooting guidelines and recommended routine maintenance schedule.

- Electrical As-Built Diagrams

Schematic diagram that accurately depicts all electrical components installed, plus main service panel and utility connection. Shall depict module series/parallel wiring, conductor and ground wire types and sizing, conduit types and sizing, and voltage drop calculations

- Mechanical Design

Description of array support structure, including engineering specifications of structural elements and manufacturer installation instructions. Provide drawings describing racking, pole mount or roof attachment methods systems.

3.2 Section 2 — Warranties and Installation Documentation

- Contractor Warranty

Installer’s 5-year minimum, full system warranty, covering labor and materials.

- Manufacturers’ Warranties

Written warranties and product registration instructions for PV modules and inverters.

- Permit(s)

Copy of approved electrical and, as applicable, building permits for the system installation.

- Utility Interconnection / Net Metering Agreement

Copy of the agreement between the utility customer and the utility.

3.3 Section 3 — Manuals and Data Sheets

- Parts and Source List

Bill of materials, listing all system components including part numbers. Inverter and module serial numbers should be recorded to facilitate replacement in the case of product recall or recovery in the case of theft.

- Inverter Owner’s Manual

Documentation from inverter manufacturer.

- Manufacturer Data Sheets for Major Components

Including but not limited to: inverters, PV modules, rack/mounting system, charge controller, batteries, disconnect switches, ground fault protection equipment, lightning arrestors, and combiner boxes.

Operation and maintenance instruction manuals shall have all required safety warnings and instructions clearly provided where applicable.

All parts of the User Manual are to be made available in paper copy as well as electronically

4.0 Utah Building Codes

Utah's building codes are mandatory statewide. Local jurisdictions may amend them but only with state approval.

Current and applicable codes and the authorities having jurisdiction (“AHJ”), including but not limited to the code types listed below, should be identified by Contractor prior to any design, engineering and or specification development.

Code Type
Building/Dwelling Code
Structural Code
Plumbing Code
Mechanical Code
Electrical Code
Fire/Life Safety Code
Energy Code

2012 Building Code will be applicable for submittals after July 1st 2013.

5.0 Specific Material Fire Code Requirements

Specific details with respect to roof and module fire rating code and information about two previous projects at the University is attached in the following pages.



To : Darlene J. McCalmont
McCalmont Engineering
From : Bryan M. Romney 
Building Official
Date : October 17, 2011
Project Name : PV System Installation for HPER East & Museum of Natural History
Project No. : 21070

Subject : **Approval of Class "C" PV Modules**

In response to your Alternative Design Request dated October 11, 2011 (attached), the University of Utah has determined that your request to provide a Class "C" PV Panel as specified is approved for this project. Mr. John Taecker, UL Senior Regulatory Engineer, responded to your inquiry in a letter dated October 11, 2011, wherein he stated that it is UL's opinion that the specific panel if installed in accordance with the manufacturer's installation instructions and applicable code requirements would not adversely affect the current roof covering fire resistance to external fire exposure.

Building code requirements for installation of PV systems on top of roof coverings first appeared in the 1982 Edition of the Uniform Building Code as noted:

Solar Energy Collectors

Sec. 1714. Collectors which function as building components shall comply with the applicable provisions of the code.

Collectors located above or upon a roof and not functioning as building components shall not reduce the required fire resistance nor fire-retardancy classification of the roof covering materials.

- EXCEPTIONS:**
- 1. Collectors installed on one- and two-family dwellings.**
 - 2. Noncombustible collectors located on buildings not over three stories in height or 9000 square feet in total floor area.**
 - 3. Collectors that comply with the provisions of Section 5214.**

The 2009 Edition of the International Building Code does not contain this requirement. However, the concern regarding PV system installations has not been totally mitigated even though the current building code is unclear. The lack of a clear understanding is illustrated by

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V. Randall Turpin University Services Building
1795 E. South Campus Drive, Room 211
Salt Lake City, Utah 84112-9404
Phone: (801) 581-5953 / (801) 581-6081 Fax / bryan.romney@fm.utah.edu

the fact that the requirements of UL 1703 (see attachment) contains requirements similar to those referenced in the 1982 UBC by stating in paragraph 16.1 that stand-off PV panels shall comply with the fire resistance requirements for a Class A, B, or C roof covering. Even though the UL Standards QIGU and 1703 do not stipulate the building code requirements of the roof coverings, research conducted by UL and an affiliated organization, Solar ABCs, have obtained inconclusive evidence regarding the impact that PV panels have on the fire resistance ratings of roof coverings (see attached).

Until such point that research and the IBC have credible guidelines regarding this subject, it would seem appropriate that the opinion of Mr. Taecker be implemented for these two projects. Other projects, however, with differing design criteria will require a similar evaluation for code compliance.

Please feel free to contact me if any questions arise.

Attachments

Office of the Building Official
V. Randall Turpin University Services Building
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Salt Lake City, Utah 84112-9404
Phone: (801) 581-5953 / (801) 581-6081 Fax / bryan.romney@fm.utah.edu



1624 Dell Avenue
Campbell, CA 95008
(888) MCC-ENGR
www.mccalmont.net

October 11, 2011

RE: Alternative Method as permitted by NEC 2008 Article 90.4 and IBC 2009 Article 104.11

Dear Mr. Bryan Romney:

There are two buildings – HPER East and Museum of Natural History - at the University of Utah for which we have designed roof top photovoltaic systems. Both of these systems were designed using a Sharp Solar Class C fire rated module. I have attached the product data sheet for your reference.

NEC 2008 Article 690.4(D) states that “...photovoltaic modules (etc) intended for use in photovoltaic power systems shall be identified and listed for the application”. The Sharp Solar modules are UL1703 listed. UL1703 paragraph 16.1 points out that the solar module needs to be at the same or better fire class rating than the roof covering. The particular sentences that are causing concern read “A module or panel intended for stand-off, rack, or direct mounting in combination with a specified roof, or intended for integral mounting shall comply with the fire resistance requirements for a Class A, B, or C roof covering when the module or panel is indicated or implied as being fire rated. For a combination construction, the rating shall be coincident with, or at a lower level than, the rating of the basic roof covering material.” The wording in UL1703 paragraph 16.1 has raised concern that utilizing a Class C fire rated module might not meet the intent of NEC2008 Article 690.4(D) as it relates to the listing by UL.

Significant research is currently being conducted by both Underwriters Laboratory and Solar ABCs to determine the effect of a PV system on the fire resistance of a roof covering. The Department of Energy has provided grant money to fund this research. We sent the attached October 4, 2011 letter to UL in which we requested their opinion as to whether the installation of the Sharp Solar Class C rated solar modules on these two buildings will adversely affect the fire resistance rating of their respective roof coverings.

UL has provided the attached response letter dated October 11, 2011.

We request that based on the opinion of UL, that these installations be granted special permission to install the Class C fire rated Sharp Solar module. Per NEC 2008 Article 90.4 “by special permission, the authority having jurisdiction may waive specific requirements in this Code or permit alternative methods where it is assured that equivalent objectives can be achieved by establishing and maintaining effective safety”. Per IBC 2009 Article 104.11 “an alternative material, design, or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose

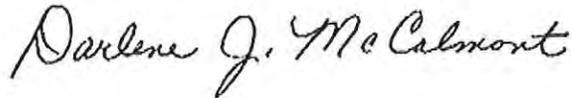
intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.”

Of secondary nature and for your information, we thought it would be useful to share how the City of Los Angeles has addressed this same issue in an area which is prone to a high risk of wild fires. In their Guidelines for Plan Check and Permit Requirements for Solar Energy Devices (page 1 of 5 is attached), they state the following in section 1B:

“Solar Energy Devices Installed on Top of a Roof: Solar energy devices installed immediately above a roof of a building shall be non-combustible or shall have at least a “Class C” fire rating classification per UL1703/UL790. Testing and listing must be done by an approved listing agency. The roof where solar energy devices are installed shall have the code required fire rating classification. “

We appreciate your approval of this letter, our letter to UL and the letter provided by UL as justification to grant this alternative method and permit the use of the Class C rated Sharp module.

Sincerely,

A handwritten signature in cursive script that reads "Darlene J. McCalmont".

Darlene McCalmont
COO, McCalmont Engineering



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Campbell, CA 95008
(888) MCC-ENGR
www.mccalmont.net

October 4, 2011

RE: UL1703 and Fire Resistance Ratings of Solar PV Modules

Dear Mr. John Taecker:

There are two buildings – HPER East and Museum of Natural History - at the University of Utah for which we have designed roof top photovoltaic systems. Both of these systems were designed using a Sharp Solar Class C fire rated module. I have attached the product data sheet for your reference.

The following gives some specific data for each building’s system:

	<u>Museum</u>	<u>HPER East</u>
Roof Fire Rating	Type B	Type B
Roof Type	White TPO	White PVC
Number of roof levels involved	3	3
% of roof surface covered by modules	32%-39%	27%-56%
Size of largest array on roof without a fire access path	5 x 17 modules	6 x 16 modules
Average distance of module off the roof	18”-24”	18”-24”
Inter-row spacing of the modules	~9”	~17”
Minimum setback from all roof edges	10 ft	10 ft
Racking, product sheet attached	Unirac IRM	Unirac IRM

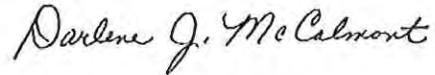
The building official references NEC 2008 Article 690.4(D) which states that “...photovoltaic modules (etc) intended for use in photovoltaic power systems shall be identified and listed for the application”. He then refers to UL1703 paragraph 16.1 as requiring the solar module to be at the same or better fire class rating as the roof covering. The two sentences that appear to be relevant in that paragraph read “A module or panel intended for stand-off, rack, or direct mounting in combination with a specified roof, or intended for integral mounting shall comply with the fire resistance requirements for a Class A, B, or C roof covering when the module or panel is indicated or implied as being fire rated. For a combination construction, the rating shall be coincident with, or at a lower level than, the rating of the basic roof covering material.”

However, the UL QIGU GuideInfo for Photovoltaic Modules and Panels under Use and Installation third paragraph states “Installation of modules on or integral to a building’s roof system may or may not adversely affect the roof-covering materials’ resistance to external fire exposure if the module has a lesser or no fire-resistance rating.” This paragraph seems to imply

that it is unknown at this time what effect a lesser fire rating will actually have on the roof covering.

It has been requested that we gain an opinion from UL, given the above design, on whether the installation of the Sharp Solar Class C rated solar modules on these two buildings will adversely affect the fire resistance rating of their respective roof coverings.

Sincerely,

A handwritten signature in cursive script that reads "Darlene J. McCalmont".

Darlene McCalmont
COO, McCalmont Engineering



Darlene McCalmont
Chief Operations Officer
McCalmont Engineering
1624 Dell Avenue
Campbell, CA 95008

October 11, 2011

Dear Ms. McCalmont,

This letter is in response to your October 4, 2011 letter regarding the installation of photovoltaic modules at the University of Utah.

Based on the testing and research performed to date, it is UL's opinion that the specific Sharp modules referenced in your October 4, 2011 letter, when installed at the specific jobsite as described in your letter and in accordance with the manufacturer's installation instructions and the applicable code requirements, would not adversely affect the current roof-covering materials' resistance to external fire exposure. This opinion only applies to this specific installation as described.

If there are any questions regarding this installation, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Taecker', is positioned above the printed name.

John Taecker
Senior Regulatory Engineer



GUIDELINES FOR PLAN CHECK AND PERMIT REQUIREMENTS FOR SOLAR ENERGY DEVICES

The purpose of this Information Bulletin is to clarify the plan check and permitting process by the Los Angeles Department of Building and Safety (LADBS) for solar water heating and photovoltaic systems, hereby referred to as *solar energy devices*.

I. BUILDING PLAN CHECK/PERMIT AND MATERIALS APPROVAL

A. Zoning Requirements: Structures that support solar energy devices shall conform to the same Zoning Code requirements such as height, yard, HPOZ, Specific Plans, and ICOs, as for a building. Water heater equipment accessory to the solar devices may be located with the same limitations as specified in the Information Bulletin P/ZC 2002-006: "Allowable Projections and Improvements in Required Yards". Allowable height projections shall comply with LAMC Section 12.21.1B3 (a), and Information Bulletin P/ZC 2002-008.

B. Materials/Products Approval:

- 1. Solar Energy Devices Installed on Top of a Roof:** Solar energy devices installed immediately above a roof of any building shall be non-combustible or shall have at least a "Class C" fire rating classification per UL 1703 / UL 790. Testing and listing must be done by an approved listing agency. The roof where solar energy devices are installed shall have the code required fire rating classification. Access to the roof shall be provided in accordance with Information Bulletin P/MC 2011-006.
- 2. Solar Energy Devices used as roofing material:** Solar energy devices installed as roofing material of any building shall have the same required fire rating classification as the roof.
- 3. When Solar Energy Devices are Installed on Grade:** Structural support for ground-mounted panels shall comply with the same zoning and building code requirements of a building.

C. Grading Information: For ground-mounted installations, a grading pre-inspection is required for sites within the Special Grading Area (BOE Basic Grid Map A-13372) and where grading is involved or where the drainage pattern is changed. Plans must indicate location of ground-mounted devices with respect to slopes. See <http://zimas.lacity.org/> to find out if the property is located within the Special Grading Area (BOE Basic Grid Map A-13372).

16 Fire Resistance

16.1 A module or panel intended for stand-off, rack, or direct mounting in combination with a specified roof, or intended for integral mounting shall comply with the fire resistance requirements for a Class A, B, or C roof covering when the module or panel is indicated or implied as being fire rated. For a combination construction, the rating shall be coincident with, or at a lower level than, the rating of the basic roof covering material. The fire resistance shall be determined in accordance with the Standard for Tests for Fire Resistance of Roof Covering Materials, UL 790, as modified by Fire Tests, Section 31.

17 Superstrate

17.1 A module or panel superstrate shall comply with at least one of the following:

- a) The requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, ANSI Z97.1-1984; or
- b) The requirements in the Code of Federal Regulations, Title 16 CPSC Part 1201 – Safety Standard for Architectural Glazing Materials; or
- c) The Impact Test, Section 30.

Exception No. 1: Thin-film flexible glazing material having a thickness of 0.01 in (0.254 mm) or less need not comply with this requirement.

Exception No. 2: Encapsulant that is protected with wire screen or other similar means having openings that will not pass a 1/2-in (12.7-mm) diameter hemispherically tipped probe applied with a force of 1 lb (4.4 N).

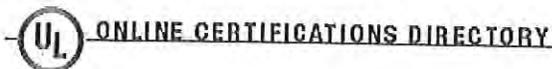
PERFORMANCE

18 General

18.1 The same test procedures shall be used for the electrical performance measurements required by the Temperature Test, Section 19, Voltage, Current, and Power Measurements Test, Section 20, and Hot-Spot Endurance Test, Section 39. The test procedures described in the following standard shall be applied where applicable:

- a) Standard Tables for Terrestrial Solar Spectral Irradiance at Air Mass 1.5 for 37 Degree Tilted Surface, ASTM G159-1998;
- b) Standard Specifications for Solar Simulation for Terrestrial Photovoltaic Testing, ASTM E927-91;
- c) Standard Methods of Testing Electrical Performance of Nonconcentrator Terrestrial Photovoltaic Modules and Arrays Using Reference Cells, ASTM E1036-96;
- d) Procedures for Temperature Irradiance Corrections to Measured I-V Characteristics of Crystalline Silicon Photovoltaic Devices, IEC 897;
- e) Photovoltaic Devices, Part 1: Measurement of Photovoltaic Current-Voltage Characteristics, IEC 904-1; and

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QIGU.GuideInfo Photovoltaic Modules and Panels

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[Distributed Generation Power Systems Equipment] Photovoltaic Modules and Panels

[See General Information for Distributed Generation Power Systems Equipment](#)

USE AND INSTALLATION

This category covers flat-plate photovoltaic modules and panels intended for mounting on buildings or on ground-supported frames. Roof-mounted modules or panels are investigated for one of three mounting methods: (1) integral to the roof of a building, (2) directly on a building's roof, or (3) on a rack with a space above the roof surface.

When mounted integral to a building's roof the module serves as the waterproof membrane. Direct-mounted panels are placed upon the building's waterproof membrane (shingles or the like). Rack-mounted styles are spaced away from the building's roof member. Rack-mounted styles may also be installed separate from buildings.

Installation of modules on or integral to a building's roof system may or may not adversely affect the roof-covering materials' resistance to external fire exposure if the module has a lesser or no fire-resistance rating. Roof-covering materials will not be adversely affected when the modules have an equal or greater fire-resistance rating than the roof-covering material.

Photovoltaic modules and panels are intended to be connected to electrical loads, controllers, or to static inverters that convert the dc power the modules or panels generate to other types of power compatible with the intended loads. This category does not include AC modules; see AC Modules (QHYZ) for additional details. In addition to their voltage, current and power ratings, modules and panels are marked to indicate terminal polarity, maximum series overcurrent device rating, and minimum acceptable diode bypassing (if needed). Installation of the modules and panels, including connection between the modules and the panels and the load, static inverters or controller is intended to be in accordance with ANSI/NFPA 70, "National Electrical Code."

Authorities Having Jurisdiction should be consulted as to conformance with applicable building codes including the class of roof covering.

CLASSES

When applicable, modules or panels are identified as Class A, B or C to denote their Classification for resistance to external fire exposure. Modules or panels that have not been identified with respect to their resistance to external fire exposure are marked "Not Fire Rated." For significance of external fire exposure classes, see Roof-covering Materials (TEVT) and Roofing Systems (TGFL).

ADDITIONAL INFORMATION

For additional information, see Electrical Equipment for Use in Ordinary Locations (AALZ).

REQUIREMENTS

The basic standard used to investigate products in this category is [ANSI/UL 1703](#), "Flat-Plate Photovoltaic Modules and Panels."

ADJUNCT SERVICE

Underwriters Laboratories Inc. (UL) provides a service for the Classification of photovoltaic modules and panels that not only meet the appropriate requirements of UL but also have been investigated to one or more of the following design qualification standards:

- IEEE 1262, "IEEE Recommended Practice for Qualification of Photovoltaic (PV) Modules"
- IEC 61215, "Crystalline Silicon Terrestrial Photovoltaic Modules - Design Qualification and Type Approval"
- IEC 61646, "Thin-film Terrestrial Photovoltaic Modules - Design Qualification and Approval"
- IEC 61730, "Photovoltaic (PV) Module Safety Qualification"
- EN 61730, "Photovoltaic (PV) Module Safety Qualification"

UL MARK

Solar America Board for Codes and Standards

Solar ABCs Interim Report

FLAMMABILITY TESTING OF STANDARD ROOFING PRODUCTS

in the Presence of Stand-off
Mounted PV Modules

Flammability Testing of Standard Roofing Products in the Presence of Stand-off Mounted PV Modules

Overview

This fact sheet summarizes a Solar America Board for Codes and Standards (Solar ABCs) Interim Report that was developed in partnership with Underwriters Laboratories Inc. (UL) to investigate whether and how the presence of roof-mounted PV arrays may affect the fire class rating of common roof covering materials. In particular, these tests were initiated in response to questions from stakeholders about the language in the UL Guide Card that stated that PV modules may or may not reduce the fire class rating of roof coverings when modules of a lower rating are installed above a roof covering with a higher rating. All tests were conducted by UL in Northbrook, IL, with assistance from representatives of Solar ABCs.

Key Findings

To assess flammability, “spread of flame” and “burning brand” tests were used. These are UL/ASTM standard tests that are conducted on all roofing systems (during UL 790 certification) as well as on all PV modules (during UL 1703 certification). However, flammability tests are ordinarily performed on either a roof covering or a PV module in isolation. The current tests applied fire and burning material to the roof covering while rack-mounted PV was present. Therefore, unlike UL 1703, which evaluates the properties of a PV module in isolation, the current tests were conducted to examine combined effects of modules and roof coverings as a system when exposed to fire and flame. Tests were designed to use the methods of UL 790 to evaluate different combinations of modules, standoff heights, and roofing materials

Burning Brand Tests

In all cases, when the burning brand was placed on top of either Class A or Class C modules (the standard test geometry from UL 1703) the roof system was found to remain compliant with Class A requirements. However, when the brand was placed on the Class A rated roof covering beneath Class C rated PV modules (a test geometry not defined in either UL 1703 or UL 790) the roof covering remained in compliance with Class A requirements in some cases and in some cases it did not. Multiple tests placing the brand on Class A-rated roof coverings beneath Class A rated PV modules resulted in the roof covering failing to meet the Class A requirements in all cases.

Spread of Flame Tests

During the spread of flame tests it was observed that any panel (even a noncombustible one) mounted at a range of gap heights (standoff) typical of many PV arrays increased the temperature and heat flux present at the roof surface when the flames were applied between the panel and roof. The increased temperature and heat flux are the result of a “channeling effect” through which the panel holds hot gases and flame closer to the roof surface not allowing them to dissipate as they do when not confined. Due to this effect, in all cases, the presence of either Class C or Class A modules mounted above Class A roof materials resulted in the roofing assemblies failing to meet the Class A spread of flame test requirements (i.e. flame spread of greater than 6 feet was observed).

When comparing spread of flame test results for Class A versus Class C modules, both types were found to fail the tests with the same frequency. It should be noted that spread of flame test failures due to the “channeling effect” would not occur for building integrated PV arrays or arrays that mount directly onto the roof surface with no gap.

Mitigation

Though not part of the initial test plan, a few methods were examined for their potential to prevent the channeling effect observed in the



spread of flame tests. Some of these experiments with noncombustible flashings and screening showed great promise, others none at all. Further tests to define and characterize mitigation methods will be conducted in the next phase of the effort.

The effect of varying the setback of the module leading edge from the leading edge of the roof was also studied. The greatest temperature rise was observed when the PV modules were placed in line with the leading edge of the roof. Increasing the setback distance resulted in lower surface temperature measured on the roof.

Solar America Board for Codes and Standards Recommendation

Further collaboration and research between the Solar ABCs, UL, the solar industry and fire safety officials will continue with more research aimed at PV safety improvements. Based on the current round of testing, reviews and comments by the PV flammability working group and the steering committee of the Solar ABCs, our recommendations are as follows:

1. At present, field experience and a thorough review of fire incident data do not indicate an urgent need to revise current practice with regard to code requirements. A major task in the next round of research will be to quantify the potential risk identified by the test results.
2. Further tests should be conducted to refine the pass/fail criteria for a fire performance test for systems that includes roof materials as well as the PV module. In addition, tests should be conducted to identify effective means of mitigating fire spread by this roof/PV system. (These tests are presented in the Interim Report.)
3. Meetings should be held with fire safety authorities, the solar industry and other interested stakeholders to discuss these tests results and to consult with stakeholders to determine future test requirements, as needed.
4. Results of these tests and of subsequent stakeholder meetings should be communicated to the UL 1703 Standards Technical Panel for their consideration regarding impact of these results on that test standard.

For More Information Contact:

Larry Sherwood, Solar ABCs Project Administrator
Larry@sherwoodassociates.com, 303-413-8028

Download the Full Report:

www.solarabcs.org/interimflammability

For more information, visit the Solar ABCs Web site:

www.solarabcs.org

Solar America Board for Codes and Standards

The Solar America Board for Codes and Standards (Solar ABCs) is a collaborative effort among experts to formally gather and prioritize input from the broad spectrum of solar photovoltaic stakeholders including policy makers, manufacturers, installers, and consumers resulting in coordinated recommendations to codes and standards making bodies for existing and new solar technologies. The U.S. Department of Energy funds Solar ABCs as part of its commitment to facilitate wide-spread adoption of safe, reliable, and cost-effective solar technologies.

**Solar America Board
for Codes and Standards**

www.solarabcs.org

DRAFT

EXHIBIT C



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

DFCM

(EXAMPLE)

SOLAR POWER PURCHASE AGREEMENT

**SOLAR PV ENERGY SYSTEM
DESIGN, CONSTRUCTION, OPERATION,
MAINTENANCE AND FINANCING**

CLIENT/AGENCY, XXX BUILDING, ADDRESS

DFCM Project No. 13055300

Issue Date: April 30, 2013

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CLIENT/AGENCY – VENDOR SOLAR POWER PURCHASE AGREEMENT

This **CLIENT/AGENCY– Vendor Solar Power Purchase Agreement (SPPA)**, dated as of _____, 2013 (this “**SPPA**” or “**Agreement**”), is by and between _____ (“**Provider**”) an Limited Liability Company of the State of _____, whose address _____ and **CLIENT/AGENCY**, an _____ institution organized and existing pursuant to Utah law (“**CLIENT/AGENCY**”), each a “**Party**” and collectively referred to as “the Parties.”

RECITALS:

WHEREAS, Provider desires to install, maintain and operate the System on the Site in the Licensed Area defined in and pursuant to the Solar Site License Agreement # _____ and by this reference incorporated herein, between **CLIENT/AGENCY** and Provider of even date herewith;

WHEREAS, Provider desires to sell, and **CLIENT/AGENCY** desires to purchase, electrical energy generated by the System pursuant to the terms and conditions set forth herein;

WHEREAS, **CLIENT/AGENCY** desires to secure sustainable energy resources to support its operations at no greater costs for the energy than it would pay for electricity otherwise supplied by Rocky Mountain Power (“**RMP**”) or the Local Electric Utility serving the respective site; and

WHEREAS, **CLIENT/AGENCY** desires to enter into this Agreement to: (i) support **CLIENT/AGENCY**’s commitment to sustainable energy by providing solar power to **CLIENT/AGENCY**’s site; and (ii) enable **CLIENT/AGENCY** to secure the benefits of Net Metering under the tariffs of **RMP** or the Local Electric Utility serving the Site, and/or successor tariffs.

AGREEMENT:

NOW THEREFORE, in consideration of the mutual promises set forth below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Definitions. Unless otherwise required by the context in which any term appears: (a) capitalized terms used in this SPPA shall have the respective meanings set forth in this SPPA; (b) the singular shall include the plural and vice versa; (c) the word “including” shall mean “including, without limitation”; (d) references to “sections,” attachments, and “exhibits” shall be to sections, attachments, and exhibits of this SPPA; (e) the words “herein,” “hereof” and “hereunder” shall refer to this SPPA as a whole and not to any particular section or subsection hereof; and (f) references to this SPPA shall include a reference to all recitals, exhibits and attachments hereto, as the same may be amended, modified, supplemented or replaced from time to time. Capitalized terms that are used and not defined in this SPPA and are defined in the License shall have the meanings given them in the License.

“**Average kWh Output**” Means (1) the daily average number of kWhs of Energy actually delivered to **CLIENT/AGENCY** from the System during the period of one full year ending on the Termination Date

of this SPPA, or (2) if the termination of this SPPA occurs prior to the date that is one (1) full year after the Commercial Operation Date, the expected daily number of kWhs of Energy will be defined as the estimated system production based on NREL PVWatts 1.1 data using the standard derate factor, minus standard production losses for system age and a statistical correction for adverse weather conditions.

“Agreement” shall have the meaning set forth in the preamble.

“Applicable Laws and Requirements” shall have the meaning set forth in the License.

“Commercial Operation Date” shall have the meaning set forth in Section 3.3.

“Contract Documents” shall include this Agreement; the License; the DFCM Request for Proposal (Project No. 13055300) (the “RFP”), including all associated Exhibits; and the Response submitted by Provider in response to the RFP, dated April 30, 2013 (the “Provider Proposal”), all of which are incorporated herein by reference. In the event of any conflict, inconsistency or discrepancy among the above described documents, such conflict shall be resolved in the following order of precedence: first the terms of this Agreement shall control; then the terms of the License shall control; then the terms of the Provider Proposal which have been accepted by the CLIENT/AGENCY shall control; and finally, the terms of the RFP shall apply.

“Days” shall be calendar days unless otherwise specified as business days herein.

“DFCM” means the State of Utah Division of Facilities Construction and Management

“Delivery Point” shall be at the Provider's Meter or Meters used for determining the Energy produced by the System.

“Electrical Interconnection Point” means the point(s) specified in the design of the System where the System connects to RMP or the Local Utility electrical System serving the Site.

“Energy” means electrical energy, measured in kWhs, which is produced by the System and delivered by Provider to CLIENT/AGENCY at the Electrical Interconnection Point and consists of both the Prepaid Guaranteed Monthly Energy and Excess Energy.

“Excess Energy” means electrical energy, measured in kWhs, produced by the System and delivered by Provider to CLIENT/AGENCY at the Electrical Interconnection Point in excess of the Prepaid Guaranteed Monthly Energy.

“Utah’s Solar Electric System Requirements” means the applicable requirements published from time to time by the State of Utah referencing its own or other state requirements, for third-party ownership of a solar electric system that serves a governmental beneficiary. The current Utah Solar Electric System Requirements may include forms, which will be made available to Provider upon documented request, and on a timely basis.

“Environmental Attributes” means the characteristics of electric power generation by the System that have intrinsic value, separate and apart from the Energy, arising from the perceived environmental

benefits of the System or the Energy. These characteristics include, but are not limited to: (1) all environmental and other attributes that differentiate the System or the Energy from energy generated by fossil-fuel based generation units, fuels or resources; (2) characteristics of the System that may result in the avoidance of environmental impacts on air, soil or water, such as the absence of emission of any oxides of nitrogen, sulfur or carbon or of mercury, or other gas or chemical, soot, particulate matter or other substances attributable to the System; and (3) the compliance of the System or the Energy with the law, rules and standards of the United Nations Framework Convention on Climate Change (the “UNFCCC”) or the Kyoto Protocol to the UNFCCC or crediting “early action” with a view thereto, or laws or regulations involving or administered by the Clean Air Markets Division of the Environmental Protection Agency or successor administrator or the Utah Renewable Energy Act or any state or federal entity given jurisdiction over a program involving transferability of rights arising from Environmental Attributes and Reporting Rights.

“Environmental Incentives” means all existing and future rights, credits (including tax credits), tax depreciation, rebates, benefits, reductions, offsets, and allowances and entitlements of any kind, howsoever entitled or named (including carbon credits and allowances), whether arising under federal, state or local law, international treaty, trade association membership or the like, arising from the Environmental Attributes of the System or the Energy generated thereby or otherwise from the development or installation of the System or the production, sale, purchase, consumption or use of the Energy generated thereby. Without limiting the foregoing, “Environmental Incentives” includes green tags, renewable energy credits, tradable renewable certificates, portfolio energy credits, the right to apply for (and entitlement to receive) incentives under incentive programs offered by the State and the right to claim federal income tax credits under Sections 45 or 48 of the Internal Revenue Code of 1986 as amended or any successor law. CLIENT/AGENCY makes no representation as to the current or future availability of Environmental Incentives.

“Estimated Annual Production” means the estimated annual production of Energy in the amounts set forth in Exhibit C-1 hereto.

“Expiration Date” shall have the meaning set forth in Section 10.1. “Fair Market Value” shall have the meaning set forth in Section 10.2.3.

“Final Completion” means that the Provider has completed all work called for by the Contract Documents including punch list items and which has been accepted by the CLIENT/AGENCY.

“Force Majeure Event” shall have the meaning set forth in Section 9.1.

“Governmental Authority” means any federal, state, regional, county, city, special district, or municipal government, or any department, agency, bureau, commission, or other administrative, regulatory or judicial body of any such government.

“Installation Work” means all work to be performed by Provider in connection with the permitting, construction, furnishing, installation, testing and commissioning of the System.

“kWh” (Kilowatt Hour) means a unit of electrical energy equivalent to the work done by one kilowatt (1 kW) of power expended over one hour of time.

“kWh Rate” shall have the meaning set forth in Section 5.1.

“Lender” shall have the meaning set forth in Section 14.3.6.

“License” means that certain Solar Site License Agreement dated _____ in respect of the Site entered into by Provider and CLIENT/AGENCY as of the date hereof.

“Licensed Area” shall have the meaning set forth in the License.

“Local Electric Utility” means the local electric utility serving one or more CLIENT/AGENCY site.

“Monthly Period” means the period commencing on the Commercial Operation Date and ending on the last day of the calendar month in which the Commercial Operation Date occurs, and, thereafter, all subsequent one (1) calendar-month periods during the Term, and the last partial month of the Term if the Expiration Date or Termination Date occurs on other than the last day of a month.

“Monthly Production” means, for each Monthly Period, the amount of Energy delivered during such Monthly Period.

“Net Metering and Interconnection Agreement” means that certain Agreement for Net Metering and Interconnection Service between CLIENT/AGENCY and RMP or the serving Local Electric Utility, in substantially the form attached hereto as Attachment II.

“Net Metering Tariff” means RMP’s or the Local Electric Utility’s net metering tariff applicable to the System and the included CLIENT/AGENCY site loads.

“Notice of Final Completion” means a certificate signed by an officer or manager of Provider: (1) certifying that all of the System’s licenses, permits, and approvals necessary for Provider’s construction of the System, and the production and delivery of Energy to CLIENT/AGENCY have been obtained from applicable federal, state or local authorities; (2) listing all such System- related licenses, permits and approvals; (3) certifying there has been passage of control of the System from the System’s construction contractor to Provider; (4) certifying there has been commencement of regular System operations; (5) certifying there has been synchronization of the System into the control area power grid for generating electricity; and (6) certifying that the construction punch list items have been completed.

“O&M Work” (Operations & Maintenance Work) means collectively, on and after the Commercial Operation Date, subject to the terms of this SPPA and the Site License Agreement, Licensee shall cause the System to be operated and maintained at Licensee’s sole expense, including the cost of capital repairs and replacements, in a commercially reasonable manner throughout the term of this SPPA and the SLA, including the monitoring and maintenance of metering equipment determining the quantity of Energy produced by the System and making such operating information available to CLIENT/AGENCY on an agreed-upon schedule.

“Party” means each of CLIENT/AGENCY and Provider.

“Person” shall mean any individual, corporation, partnership, company, joint venture, association, trust, unincorporated organization or Governmental Authority.

“Prepaid Guaranteed Monthly Energy” means electrical energy, measured in kWhs, produced by the System and delivered by Provider to CLIENT/AGENCY at the Electrical Interconnection Point in the amounts set forth in Exhibit C-2 which the CLIENT/AGENCY has purchased with the Prepayment Amount.

“Present Value of CLIENT/AGENCY’s Purchase Obligations” means the dollar value of the Energy of the System for the remaining portion of the Term, calculated by applying an annual discount rate of five percent (5%) to the product of the following: the number of days remaining in the Term times the product of (x) the kWh Rate CLIENT/AGENCY would otherwise pay for such Energy pursuant to Section 5.1 (as such kWh Rate would have been escalated over time pursuant to Section 5.1) times (y) the Average kWh Output reduced by the present value of an assumed degradation of Average kWh Output for the remaining portion of the Term at the rate of one-half percent (0.50%) annually.

“Provider” shall have the meaning set forth in the preamble.

“Provider Default” shall have the meaning set forth in Section 11.2.

“Provider’s Meter” shall be the electric revenue meter installed by Provider to meet the Utility’s Solar Electric Net Metering System Requirements, or such requirements as designated by other agency having jurisdiction, and to measure Energy from the System for the purpose of billing CLIENT/AGENCY.

“Reporting Rights” shall mean the right of Provider (or its owners or assignees, in this case, CLIENT/AGENCY), as long as it holds title to the System, to report to any federal, state, or local agency, authority or other party, including without limitation under Section 1605(b) of the Energy Policy Act of 1992 and provisions of the Energy Policy Act of 2005, or under any present or future domestic, international or foreign emissions trading program, that CLIENT/AGENCY owns the Environmental Attributes and the Environmental Incentives associated with the Energy or the System.

“Site” means the designated CLIENT/AGENCY buildings and grounds to be occupied by the System, as more fully described in the License.

“Site Net Meter” shall mean that certain meter installed as more fully described in the Solar Site License Agreement.

“CLIENT/AGENCY” shall have the meaning set forth in the preamble.

“CLIENT/AGENCY Default” shall have the meaning set forth in Section 11.1.

“State” means the State of Utah, including its agencies, departments, commissions, and divisions.

“Substantial Completion” shall have the meaning set forth in Section 3.2.2.

“Substantial Completion Notice” shall have the meaning set forth in Section 3.2.2.

“System” means the approximately XXX kW solar photovoltaic generating system (in aggregate) designed and installed pursuant to this SPPA in the Licensed Area and more fully described in the License.

“System Acceptance Testing” shall have the meaning set forth in Section 3.2.2.

“System Test Requirements” shall have the meaning set forth in Section 3.2.2.

“Technical Requirements” means the applicable technical requirements as published by the State of Utah, and or referenced by the State of Utah or local authority with jurisdiction, and identified as applicable, from time to time, prior to, during construction and until final commissioning of the solar facility(ies). “Term” shall have the meaning set forth in Section 10.1.

“Termination Date” shall have the meaning set forth in Section 10.1.

“Termination Value without Removal Costs” means, as of the Termination Date, an amount equal to (i) the sum of: (A) the Present Value of CLIENT/AGENCY’s Purchase Obligations, and (B) if the Termination Date is within sixty-six (66) months of the Commercial Operating Date, the present value of all tax benefits and incentives if any, that will become or are subject to recapture from Provider or any member of Provider by law; and (ii) minus the Fair Market Value of the System.

“UPSC” means the Utah Public Service Commission.

2. Solar Site License Agreement. CLIENT/AGENCY shall provide Provider with access to the Licensed Area within the Site in accordance with the terms of the License, the terms and conditions of which are incorporated herein by this reference. If any of the terms or conditions of this SPPA are inconsistent with those of the License, the License shall control, except as explicitly provided otherwise in this SSPA.

3. Construction, Installation and Testing of System. Provider shall design, engineer, procure, and construct, operate and maintain the System in the Licensed Area in accordance with the Contract Documents and the CLIENT/AGENCY/DFCM General Conditions and Supplemental General Conditions which are incorporated herein by reference. Provider may retain, with the prior written consent of CLIENT/AGENCY/DFCM, one or more contractors or subcontractors to fulfill its obligations hereunder; provided, however, that Provider shall remain liable for performance under the License and this SPPA.

3.1 Energy Delivery. The date on which the delivery of Energy to the Site under regular System operations commences (the “Commercial Operation Date”) shall be the date on which all of the following shall have occurred: (a) Provider shall have provided to CLIENT/AGENCY a Substantial Completion Notice pursuant to Section 3.2.2; (b) Provider shall have submitted a certificate of an officer or manager of Provider familiar with the Site stating, after due inquiry, that all permits and licenses required to be obtained under Applicable Laws and Requirements in connection with the

operation of the System have been obtained and are in full force and effect; (c) certificates of insurance evidencing the coverages required by Section 8 shall have been obtained and submitted to CLIENT/AGENCY; (d) Provider shall have submitted to CLIENT/AGENCY copies of the as-built construction drawings, Installation Work manuals, O&M Work manuals, and equipment and System warranties, as provided in the License; and (e) CLIENT/AGENCY and or Provider, as applicable, shall have entered into a Net Metering and Interconnection Agreement. Time is of the essence in this Agreement. Final completion must be achieved no later than July 31, 2014.

3.2 System Acceptance Testing.

3.2.1 Provider shall conduct testing of the System (“System Acceptance Testing”). Provider shall notify CLIENT/AGENCY in writing not less than seven (7) calendar days prior to the anticipated date of System Acceptance Testing. CLIENT/AGENCY shall have the right, but not the obligation, to be present at and observe the System Acceptance Testing. Provider must plan and design the required commissioning and acceptance testing and criteria (“System Test Requirements”), which System Test Requirements shall be subject to CLIENT/AGENCY approval, so that the commissioning and testing will determine whether the System is capable of generating Energy for commercial use by CLIENT/AGENCY at the Site.

3.2.2 If the results of the System Acceptance Testing indicate that the System is capable of generating Energy for commercial use by CLIENT/AGENCY as designed and otherwise meets the requirements of this SPPA, and the System has been approved for interconnected operation by RMP or the Local Electric Utility (“Substantial Completion”), then Provider shall send a written notice to that effect to CLIENT/AGENCY (a “Substantial Completion Notice”) accompanied by a copy of the results of the System Acceptance Testing.

3.2.3 During System Acceptance testing, the System must demonstrate the capacity to produce the mutually agreed, projected solar energy at each site, on an annual average basis, as kWh/kW. System Acceptance testing will occur over 14 days via the specified and mutually agreed monitoring system and will be consistent with historical point in time data (provided by Provider) for a yearly average production of the mutually agreed kWh/kW at each site, for the month in which it is tested. Production estimates taken during commissioning will make allowances for decreased output due to adverse weather conditions.

3.3 Commercial Operation Date.

Licensee shall proceed expeditiously following issuance by the CLIENT/AGENCY of the Notice to Proceed, and shall be substantially complete preferably by December 31, 2013, but no later than June 30, 2014. Commercial Operation Date shall be no later than July 31, 2014. Provider shall send to CLIENT/AGENCY a written Notice of Final Completion meeting the requirements stated herein.

4. Compliance with Utility Specifications. Provider must ensure that all Energy generated by the System conforms to the Net Metering and Interconnection Agreement and applicable utility specifications for energy being net-metered, generated and delivered to the Site’s electric distribution system, which shall include the installation of proper power conditioning and safety equipment,

submittal of necessary specifications, coordination of utility testing and verification, and all related costs.

5. Purchase of Energy; Billing Environmental Attributes.

5.1 Purchase and Sale Requirement. Provider shall deliver and CLIENT/AGENCY shall purchase all of the Energy generated by the System at the Delivery Point as determined by Provider's Meter as follows:

5.1.1 Payment for Excess Energy. The sale of Excess Energy shall be calculated and billed on a per kWh basis (the "kWh Rate") as set forth in Exhibit C-2. CLIENT/AGENCY's payment for the Excess Energy under this calculation includes and will satisfy CLIENT/AGENCY's payment obligations for all of the described services in the kWh Rate (including, but not limited to System design, permitting, construction, equipment, materials, operation, maintenance, repair, removal and Site restoration) and will not be renegotiated based on costs incurred by Provider.

5.1.2 Prepayment and Price for Energy Output. On or before fifteen (15) business days following the Commercial Operation Date (the "Prepayment Date"), Buyer shall pay to Seller the Prepayment Amount set forth in Exhibit C-2 for the Guaranteed Generation. Following the Prepayment Date, during each month Seller will deliver to Buyer, and Buyer will accept and purchase from Seller (for which the Prepayment Amount is Seller's consideration) the Prepaid Guaranteed Monthly Energy for the Term.

5.1.3 Shortfalls in Prepaid Guaranteed Monthly Energy. If, for any month, the Energy produced by the System is less than the otherwise deliverable Prepaid Guaranteed Monthly Energy for such month, the amount of such shortfall shall (without penalty) be added to, and treated as part of, the Prepaid Guaranteed Monthly Energy for the month immediately following, and so on, until such shortfall shall have been reduced to zero.

5.2 Net Metering and Interconnection. The System must comply with the Net Metering and Interconnection Agreement and all applicable interconnection and Net Metering Tariff requirements such that CLIENT/AGENCY can benefit from the Local Utility's Rate Schedule, or any successor tariff pertaining to net metering.

5.3 Environmental Attributes.

5.3.1 CLIENT/AGENCY's purchase of the Energy includes the Environmental Attributes, Environmental Incentives and applicable Reporting Rights, all of which shall be assigned to and owned by CLIENT/AGENCY, who shall acquire title to same. At CLIENT/AGENCY's request and expense, Provider shall execute all documents and instruments reasonably necessary or desirable to effect or evidence CLIENT/AGENCY's right, title and interest in and to the Environmental Attributes, Environmental Incentives and Reporting Rights as derived from the System.

5.3.2 Provider shall retain, or be assigned by CLIENT/AGENCY all right and ownership to all other generation related incentive credits (“Other Incentives”) unless CLIENT/AGENCY acquires title to the System pursuant to Section 10.2.2, 10.3, or 12.1.2 of this SPPA.

5.3.3 Provider shall perform all reporting required by the Environmental Incentives and Other Incentives. CLIENT/AGENCY shall furnish Provider with information Provider reasonably requests in connection with such reporting.

5.3.4 Provider shall at all times retain all tax credits and depreciation associated with the System unless CLIENT/AGENCY acquires title to the System.

5.3.5 Provider shall supply CLIENT/AGENCY with documentation as mutually agreed that CLIENT/AGENCY is acquiring energy resources from Provider in the amount generated by the System under this SPPA.

5.3.6 Notwithstanding the foregoing, CLIENT/AGENCY may transfer or assign the Environmental Attributes associated with the Energy produced by the System to any other entity, including the serving electrical utility at a given CLIENT/AGENCY, or otherwise.

5.4 Monitoring and Metering Equipment and Services.

5.4.1 Performance Monitoring. Provider shall install and maintain, at its expense, commercially available revenue grade Interval Data Recording kilowatt-hour (“kWh”) metering on the Site for the measurement of Energy provided to CLIENT/AGENCY. The metering shall have standard industry telemetry and all other capabilities needed to support the monitoring and other reporting requirements. Provider shall, throughout the Term of this SPPA and the License, use the metering to measure, and shall report to CLIENT/AGENCY, the actual kW and kWh output of the System delivered to CLIENT/AGENCY. Such metering must be capable of recording the facility’s total production of Energy and must be equivalent to American National Standards Institute certified revenue meters with a 0.5 or better accuracy class, and, if digital, must have non-volatile data memory.

Provider shall provide a software-based Performance Monitoring System utilizing the Adobe Flash multimedia platform, or similar and as mutually agreed, with a “CLIENT/AGENCY” graphical display recorded in 15-minute intervals, integrated to appear as a “live” display, to provide monitoring of the output and efficiency of the system for energy production and tracking, including a display of Total Energy Generated “green energy” equivalents; these will be, at a minimum: Trees Preserved, and Tons of Carbon Dioxide (CO₂) saved by the Solar Electric system. The graphical displays must show solar generation in kW AC production, and include a chart that graphs the kWh output of the system by user-selected displays including, at a minimum: Today, Week, Month and Year’s kWh production. The Performance Monitoring System must be capable of being displayed on the CLIENT/AGENCY and or specific web site, and kiosks, if included, so that the students, staff and general public have access to the solar performance output data.

6. Billing and Payment. Billing and payment for the Energy sold and purchased under this SPPA and any other amounts due and payable hereunder shall be as follows:

6.1 Payments. Subject to the annual adjustment under Exhibit C-2 attached hereto and incorporated by reference herein, CLIENT/AGENCY shall pay to Provider for each Monthly Period during the Term, within thirty (30) days after receipt of any invoice, a payment for the Energy delivered by the System during each such Monthly Period equal to the product of: (a) the Monthly Production for the System for the relevant whole or partial month multiplied by; (b) the relevant kWh Rate for Energy relating to the System. CLIENT/AGENCY's payment may be made by check or by wire transfer of immediately available funds to Provider at the address specified in this SPPA. Provider may not assign this right to receive payment without advance written approval of the CLIENT/AGENCY.

6.2 Invoice Errors. Within thirty (30) days after receipt of any invoice, CLIENT/AGENCY may provide written notice to Provider of any alleged error therein. CLIENT/AGENCY shall pay all undisputed amounts, including the undisputed portion of any invoice, in accordance with Section 6.1. If Provider notifies CLIENT/AGENCY in writing within thirty (30) days of receipt of such notice that Provider disagrees with the allegation of error in the invoice, the Parties shall meet, by telephone conference call or otherwise, within ten (10) days of Provider's response for the purpose of attempting to resolve the dispute. Upon the Parties' final resolution of the disputed amount, CLIENT/AGENCY shall pay the agreed-upon amount to Provider in accordance with Section 6.1.

6.3 Late Payments. Any payment of any undisputed amount not made within the time limits specified in Sections 6.1 and 6.2 are subject to the Utah Prompt Payment Act, Utah Code Ann. Sections §15-6-1, et seq. Late payment penalties charged to CLIENT/AGENCY under this Agreement shall be no greater than any late payment penalty which would otherwise be applicable to CLIENT/AGENCY under the applicable Tariff Schedule or the Net Metering Tariff.

6.4 Non-Appropriation of Funds. Provider is not entitled to receive power purchase payments under this SPPA from any other agency than CLIENT/AGENCY. Nothing in this SPPA may be construed as permitting any violation of Articles within the Utah Constitution or any other law regulating liabilities or monetary obligations of CLIENT/AGENCY. CLIENT/AGENCY represents that it has sufficient appropriations and expenditure limitations for the current fiscal year to make, within this fiscal year, all the power purchase payments contemplated by this SPPA. CLIENT/AGENCY shall employ its best, good-faith efforts to request and seek funding, appropriations, grant funds, expenditure limitations, allotments, or other expenditure authority sufficient to allow CLIENT/AGENCY to perform its payment obligations throughout the Term of this SPPA. It is understood and agreed to by the parties to this Contract, that the Utah Legislature cannot assure appropriations to agencies in futures years. Therefore, there is no assurance that in any year an agency of the state will purchase energy in any amount under this Agreement and there are no penalties to the Agency or State of Utah for not purchasing any minimum amount."

7. General Covenants.

7.1 Covenants of Provider. As a material inducement to CLIENT/AGENCY's execution and delivery of this SPPA, Provider covenants and agrees to the following:

7.1.1 System Condition.

(a) Provider shall take all actions reasonably necessary to ensure that the System is capable of providing Energy at a continuous rate, at the designed capacity, for the Term of this SPPA, subject to expected, ordinary System degradation over time or weather fluctuations, subject to Section 9 of this SPPA, and subject to the terms and conditions of the License.

(b) If the System is materially damaged or destroyed prior to the 15th anniversary of the Commercial Operation Date, and insurance proceeds paid to Provider are greater than or equal to 90% of the reasonable cost to repair or replace the System to produce Energy in substantially the same amount and quality as produced by the System immediately before the damage or destruction, then Provider shall repair or replace the System to produce such Energy. It is provided, however, that if the System is damaged or destroyed by a Force Majeure Event that has affected Provider's performance of its obligations hereunder and that has continued, or is likely in the reasonable opinion of Provider and CLIENT/AGENCY to continue, for a period of one hundred twenty (120) consecutive days in a twelve-month period or one hundred eighty (180) days in the aggregate in a twelve-month period, then CLIENT/AGENCY and Provider shall each be entitled to terminate this SPPA as provided by Section 9.3 of this SPPA. If the insurance proceeds paid to Provider under this Section 7.1.1(b) are less than 90% of the reasonable cost to repair or replace the System as described above, then Provider may elect to terminate this SPPA and the License. In addition, the CLIENT/AGENCY may, but is not obligated to, purchase the System in accordance with Section 10.2.2 of this SPPA. For purposes of this paragraph, "insurance proceeds" shall include the amount of any deductible or self-insured retention and the amount available under any policy of insurance. Buyout provision should supersede this.

(c) If the System is materially damaged or destroyed on or after the 15th anniversary of the Commercial Operation Date through no fault of Provider, then Provider may, but shall not be obligated to, repair or replace the System in order to produce Energy in substantially the same amount and quality as produced by the System immediately before the damage or destruction. If Provider is not required to or elects not to repair or replace the System under this Section 7.1.1(c), then this SPPA will terminate without liability to either Party and Provider shall complete the Removal and Remediation of the System in accordance with Section 7.1 of the License, unless CLIENT/AGENCY chooses to purchase the System in accordance with Section 10.2.2 of this SPPA, with the term "Expiration Date" as used therein understood to refer to "Termination Date" and with the due date for notice of CLIENT/AGENCY's election to purchase changed to the date on or before sixty (60) days after CLIENT/AGENCY's receipt of Provider's notice to terminate.

(d) Notwithstanding anything to the contrary in this Section 7.1.1, if the System is materially damaged or destroyed due to the negligent or intentional acts or omissions of Provider or any of its officers, employees, subcontractors, assignees, or representatives at any tier, Provider shall promptly repair or replace the System to produce Energy in substantially the same amount and quality as produced by the System immediately before the damage or destruction. In these circumstances, CLIENT/AGENCY shall provide reasonable assistance to facilitate Provider's repair or replacement of the System.

7.1.2 Other Applications and Agreements. Provider must timely develop and file such other applications, renewals and agreements as may be necessary for the permitting, operation and maintenance of the System, including but not limited to tax credit applications, construction and other permits, or other agreements or applications, as applicable, and must pay all associated fees. Provider must enable timely review and approval by CLIENT/AGENCY of any agreements or applications to which CLIENT/AGENCY must be a party. Provider shall cooperate with CLIENT/AGENCY in the preparation of the Net Metering and Interconnection Agreement.

7.1.3 Provider Records. Provider shall keep complete and accurate records of its operations hereunder and shall maintain such data as may be necessary to determine with reasonable accuracy any item relevant to this SPPA. CLIENT/AGENCY shall have the right to examine and audit, at its own expense, all such records as may reasonably be necessary to ascertain the reasonableness and accuracy of any statements of costs relating to transactions hereunder.

7.1.4 No Infringement. Provider shall ensure that neither the System, nor any of Provider's services hereunder, including the Installation Work and the O&M Work, infringe any third party's intellectual property rights or other proprietary rights.

7.1.5 Liens. Provider shall not directly or indirectly cause, create, incur or suffer to exist any Lien on or with respect to the Licensed Area, the Site, the property owned by CLIENT/AGENCY at the site, or any building, structure or facility (other than the System) located thereon. If Provider breaches its obligations under this Section 7.1.5, it shall promptly notify CLIENT/AGENCY in writing, and shall promptly cause such Lien to be discharged and released of record without cost to CLIENT/AGENCY.

7.2 Covenants of CLIENT/AGENCY. As a material inducement to Provider's execution of this SPPA, CLIENT/AGENCY covenants and agrees as follows:

7.2.1 Notice of Damage. CLIENT/AGENCY shall make reasonable effort to promptly notify Provider of any matters of which CLIENT/AGENCY Engineering Staff becomes aware that pertain to any material damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System.

7.2.2 Liens. CLIENT/AGENCY shall not directly or indirectly cause, create, incur or suffer to exist any Lien on or with respect to the System or any interest therein. If CLIENT/AGENCY breaches its obligations under this Section 7.2.2, it shall promptly notify Provider in writing, and shall promptly cause such Lien to be discharged and released of record without cost to Provider.

7.2.3 Actions to Prevent Injury. In the event of a material malfunction or emergency of or related to the System that creates a reasonable risk of damage or injury to person or property, as reasonably determined by the CLIENT/AGENCY, CLIENT/AGENCY may (but shall not be obligated to) take such action as CLIENT/AGENCY deems appropriate to prevent such damage or injury. Such action may include disconnecting and removing all or

a portion of the System. Such action shall be at Provider's cost, subject to Section 7.1.1(b), if applicable. It is provided, however, that when the malfunction or emergency is neither the result of actions or omissions of Provider or anyone acting on behalf of Provider, nor the result of a Force Majeure Event, CLIENT/AGENCY shall reimburse Provider, on a pro-rata basis, lost revenue that results from CLIENT/AGENCY's actions under this Section 7.2.3 in an amount per day that equals the average of the trailing thirty (30) day Energy production average.

7.3 Communications/Publicity. Provider and CLIENT/AGENCY acknowledge that all communications and publicity related to the System shall be conducted in accordance with the communications plan developed under Section 9.2 of the License.

8. Insurance Requirements. Provider shall procure and maintain, for the duration of this SPPA and the License, insurance as set forth in the License and shall furnish certificates of insurance as set forth in Article 6 of the License.

9. Force Majeure Events.

9.1 Definition of Force Majeure Event. For purposes of this SPPA, an act or event is a "Force Majeure Event" if that act or event is beyond the reasonable control, and not the result of the fault or negligence, of the affected Party, including any one acting on behalf of the affected Party, and such Party has been unable to overcome such act or event with the exercise of due diligence (including the expenditure of commercially reasonable sums). Subject to the foregoing conditions, "Force Majeure Event" shall include the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning, volcanic eruption and earthquakes; (ii) explosions or fires arising from lightning or other causes unrelated to the acts or omissions of the Party seeking to be excused from performance; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, terrorist acts, or rebellion; (iv) strikes or labor disputes; and (v) action by a Governmental Authority, including a moratorium on any activities related to this SPPA.

9.2 Procedure for Claiming Force Majeure. Any Party claiming a Force Majeure Event shall advise the other Party as soon as possible of the occurrence of the Force Majeure Event and shall provide the other Party with the basis of the claim, in writing, within ten (10) calendar days of the occurrence of the Force Majeure Event.

9.3 Consequences of Force Majeure Event. The Parties shall make reasonable efforts to avoid the adverse impacts of a Force Majeure Event and to resolve the event or occurrence once it has occurred in order to resume performance, (unless Provider has no repair and replacement obligations as provided under Section 7.1.1(b)). Subject to the termination rights contained in this Section 9.3, if a Party is prevented from performing its obligations under this SPPA by a Force Majeure Event, the period for performance of such obligation will be extended by the number of days of the duration the Force Majeure Event. If a Force Majeure Event shall have occurred that has affected Provider's ability to produce Energy to the extent that the System cannot provide at least 75% of the Estimated Annual Production, or has prevented CLIENT/AGENCY's performance of its material obligations hereunder, and that condition has continued, or is likely in the reasonable opinion of Provider and CLIENT/AGENCY to continue, for a period of one hundred twenty (120) consecutive

days or one hundred eighty (180) days in the aggregate in a twelve-month period, then CLIENT/AGENCY and Provider shall each be entitled to terminate this SPPA on thirty (30) days' prior written notice to the other Party and such termination due to a Force Majeure Event shall not constitute a event of default under this SPPA. Notwithstanding the occurrence of a Force Majeure Event, CLIENT/AGENCY shall continue to pay for any Energy delivered during any Force Majeure Event.

9.4 Change of Law. A change of law, including CLIENT/AGENCY's nondiscriminatory exercise of its regulatory authority, shall not constitute a Force Majeure Event.

10. Term; CLIENT/AGENCY Options; Special Termination Provisions.

10.1 Term. The term of this SPPA (the "Term") shall commence on the Parties' execution of this SPPA and shall expire on the date (the "Expiration Date") that is the last day of the period of twenty (20) years following the Commercial Operation Date, unless the period is terminated earlier pursuant to Sections 9.3, 10.3, 10.4, or 12 (the date of any such termination, the "Termination Date") or the period is extended pursuant to Section 10.2.1. The purchase and sale obligations of the Parties under Section 5.1 with respect to the Energy from the System shall commence on the Commercial Operation Date and shall expire on the Expiration Date or Termination Date.

10.2 CLIENT/AGENCY Options Upon Expiration of Term.

10.2.1 Extension of Term. Upon prior written notice to Provider at least one-hundred eighty (180) days prior to the first Expiration Date, provided that no CLIENT/AGENCY Material Default has occurred and is continuing, CLIENT/AGENCY shall have the option to renew the Term of this SPPA for one (1) additional five (5)-year period at such kWh Rates as the Parties may mutually agree to no later than ninety (90) days prior to the Expiration Date. If the Parties have not agreed to the kWh Rates ninety (90) days prior to the Expiration Date, this SPPA shall continue in accordance with its terms until the Expiration Date, unless the Parties agree, in writing, to extend the time to negotiate such new kWh Rates, with such extension automatically extending the times noted to exercise the option to purchase as described in paragraph 10.2.2 below.

10.2.2 Purchase of System. If CLIENT/AGENCY and Provider have not renewed the Term of this SPPA in accordance with Section 10.2.1, provided that no CLIENT/AGENCY material Default has occurred and is continuing, CLIENT/AGENCY shall have the option to purchase the System by giving Provider written notice of its exercise of this purchase option no later than ninety (90) days prior to the Expiration Date and paying Provider the Fair Market Value of the System not later than thirty (30) days after the Expiration Date. The option to purchase shall be in addition to any ability to purchase provided as a response to the RFP. On written notice to Provider, within thirty (30) days of the determination of Fair Market Value in accordance with Section 10.2.3 CLIENT/AGENCY may, provided that CLIENT/AGENCY bears the full costs of the appraisal(s) and has remitted all amounts payable to the appraiser(s), decline to purchase the System, notwithstanding its previous

exercise of a purchase option, with no other liability to Provider for failure to purchase the System and without waiving any future rights to exercise its purchase option. Upon receipt by Provider of payment of the Fair Market Value, title to the System shall transfer to CLIENT/AGENCY as-is, where-is, together with any Environmental Attributes not transferred or assigned to third parties, Environmental Incentives and Reporting Rights still associated with the System and the Energy and, to the extent transferable, the remaining period on all warranties for the System. From the date of CLIENT/AGENCY's exercise of its option to purchase the System and until CLIENT/AGENCY takes title to the System in accordance with this Section 10.2.2, Provider shall take commercially reasonable efforts to operate and maintain the System in a manner generally consistent with the manner in which Provider operated and maintained the System prior to CLIENT/AGENCY's exercise of its purchase option. If CLIENT/AGENCY declines to exercise this option, CLIENT/AGENCY shall provide written notice of that decision to Provider no later than ninety (90) days prior to the Expiration Date or otherwise the CLIENT/AGENCY will be deemed to have waived the purchase option.

10.2.3 "Fair Market Value" Determination. The "Fair Market Value" of the System shall be the value of the System that a willing and informed discretionary buyer would pay to a willing and informed discretionary seller of the System, on the applicable Expiration Date or Termination Date. The Fair Market Value of the System shall be determined by the mutual agreement of CLIENT/AGENCY and Provider within ten (10) days after receipt by Provider of CLIENT/AGENCY's notice of its intention to determine Fair Market Value. The Fair Market Value of the System shall (i) take into account whether the System will remain at or be removed from the Site; and (ii) include the fair market value of any Environmental Attributes, Environmental Incentives and Reporting Rights that will still be associated with the System and the Energy. If CLIENT/AGENCY and Provider cannot mutually agree to a Fair Market Value within said ten (10) day period, then the Parties shall select a nationally recognized independent appraiser with experience and expertise in the solar photovoltaic industry to determine the Fair Market Value of the System. If the Parties are unable to agree on the selection of an appraiser within ten (10) days, the appraiser shall be jointly selected by an appraiser firm proposed by CLIENT/AGENCY and an appraiser firm proposed by Provider. The appraiser shall act reasonably and in good faith to determine the Fair Market Value and shall set forth the Fair Market Value determination in a written opinion delivered to the Parties. Subject to CLIENT/AGENCY's right under Section 10.2.2 to decline to purchase the System after receiving the Fair Market Value determination, the valuation made by the appraiser shall be binding on the Parties in the absence of fraud or manifest error. The costs of the appraisal shall be borne by the Parties equally.

10.2.4 Transfer to CLIENT/AGENCY of Rights in System and Manuals. Provider must, upon delivery of CLIENT/AGENCY's payment of the Fair Market Value under Section 10.2.2, grant and provide to CLIENT/AGENCY all access to and all ownership rights in the System, including without limitation all equipment, components, System,

diagnostics, licenses, intellectual property rights, warranty rights, and operation and maintenance (O & M) manuals, documents and materials, that support or which may be reasonably necessary or convenient for CLIENT/AGENCY to assume the efficient operation, maintenance and repair of the System, together with a bill of sale or other appropriate documentation of the transfer of Provider's rights in the System.

10.3 Provider Termination.

10.3.1 Provider shall have the right to terminate this SPPA at any time on thirty (30) days written notice to CLIENT/AGENCY, without further liability, if a change in law, including CLIENT/AGENCY's nondiscriminatory exercise of its regulatory authority, materially and adversely affects the operation of the System in the Licensed Area(s) as contemplated in this SPPA and the License.

10.3.2 CLIENT/AGENCY may elect to purchase the System as provided in Section 10.2, with the term "Expiration Date" as used therein understood to refer to "Termination Date" and with the due date for notice of CLIENT/AGENCY's election to purchase changed to the date on or before thirty (30) days after receipt of Provider's notice to terminate.

10.4 Termination of License. Notwithstanding any other provision in this SPPA, this SPPA shall terminate effective upon the termination of the License. If the License is terminated due to a CLIENT/AGENCY failure to cure a material default hereunder, then in accordance with Section 11.1.3 below, that event shall constitute a CLIENT/AGENCY Default under this SPPA and any termination of this SPPA shall be in accordance with Section 12.2. If the License is terminated due to a Provider failure to cure a material default hereunder, then in accordance with Section 11.2.3 below, that event shall constitute a Provider Default under this SPPA and any termination of this SPPA shall be in accordance with Section 12.1. If the License is terminated for a reason other than a CLIENT/AGENCY default or a Provider default hereunder, CLIENT/AGENCY and Provider's liability shall be determined pursuant to the Section of the License under which the License is terminated.

10.5 Obligations Upon Termination. In the event that this SPPA is terminated in accordance with the following Sections, no Party shall have any liability to the other Party as a result of such termination, and the only amounts due under this SPPA shall be those amounts that accrued in accordance with this SPPA prior to the Termination Date:

- (i) Section 7.1.1(b) (System Condition);
- (ii) Section 9.3 (Force Majeure); or
- (iii) Section 10.3.1 (Change in Law).

It is provided, however, that Provider will be responsible for the Removal of the System and Remediation of the Site (as such terms are defined in the License) as provided under Section 7.1 of the License.

11. Defaults.

11.1 CLIENT/AGENCY Default. The occurrence at any time of any of the following events shall constitute a “CLIENT/AGENCY Default”:

11.1.1 Failure to Pay. Unless excused by a Force Majeure Event pursuant to Section 9, the failure of CLIENT/AGENCY to pay on any three consecutive occasions during the Term any undisputed amounts owing to Provider on or before the day following the date on which such amounts are due and payable under the terms of this SPPA and CLIENT/AGENCY’s failure to cure any such failure within forty-five (45) days after CLIENT/AGENCY receives written notice of each such failure from Provider;

11.1.2 Failure to Perform Other Obligations. Unless excused by a Force Majeure Event pursuant to Section 9, the failure of CLIENT/AGENCY to perform or cause to be performed any other material obligation required to be performed by CLIENT/AGENCY under this SPPA, or the failure of any material representation and warranty set forth in Section 14.2.2 of this SPPA to be true and correct as and when made; subject, however, to the following conditions:

- a. If such failure by its nature can be cured, then CLIENT/AGENCY shall have a period of thirty (30) days after receipt of written notice from Provider of such failure to CLIENT/AGENCY to cure the same and an CLIENT/AGENCY Default shall not be deemed to exist during such period;
- b. if CLIENT/AGENCY commences to cure such failure during such period and is diligently and in good faith attempting to effect such cure, said period shall be extended for one-hundred twenty (120) additional days; and
- c. in any event, if such failure shall continue for at least five (5) calendar days and directly and substantially impairs Provider’s ability to deliver and sell Energy to CLIENT/AGENCY, Provider shall be entitled to reasonably estimate the amount of revenue that would have been obtained “but for” the CLIENT/AGENCY breach and shall invoice CLIENT/AGENCY for any such shortfall, unless such failure to perform is excused due to a Force Majeure Event pursuant to Section 9.

11.2.3 License Default. A material default by CLIENT/AGENCY under the License occurs and is continuing that has not been cured within the cure period provided in the License, and that default has not been waived by Provider under the License.

11.2 Provider Default. The occurrence of any of the following events shall constitute a “Provider Default”:

11.2.1 Failure to Perform Obligations. Unless excused by a Force Majeure Event pursuant to Section 9, the failure of Provider to perform or cause to be performed any material obligation required to be performed by Provider under this SPPA or the failure of any material representation and warranty set forth in Section 14.2.1 of this SPPA to be true and correct as and when made; subject, however, to the following conditions:

a. If such failure by its nature can be cured, then Provider shall have a period of thirty (30) days after receipt of written notice from CLIENT/AGENCY of such failure to Provider to cure the same and a Provider Default shall not be deemed to exist during such period;

b. If Provider commences to cure such failure during such period and is diligently and in good faith attempting to effect such cure, said period shall be extended for one-hundred twenty (120) additional days; and

c. Any failure of Provider to provide Energy as a direct result of any material interruption or interference attributable to CLIENT/AGENCY, including any interruption or interference described in Section 3.5 of the License, shall not be deemed to be a failure of the Provider to perform or cause to be performed a material obligation under this SPPA.

11.3.2 Bankruptcy, Etc. (a) Provider admits in writing its inability to pay its debts generally as they become due; (b) Provider files a petition or answer seeking reorganization or arrangement under the federal bankruptcy laws or any other Applicable Laws and Requirements; (c) Provider makes an assignment for the benefit of creditors; (d) Provider consents to the appointment of a receiver of the whole or any substantial part of its assets; (e) Provider has a petition in bankruptcy filed against it, and such petition is not dismissed within 90 days after the filing thereof; (f) a court of competent jurisdiction enters an order, judgment, or decree appointing a receiver of the whole or any substantial part of Provider's assets, and such order, judgment or decree is not vacated or set aside or stayed within 90 days from the date of entry thereof; or (g) under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the whole or any substantial part of Provider's assets and such custody or control is not terminated or stayed within 90 days from the date of assumption of such custody or control; or

11.2.3 License Default. A material default by Provider under the License occurs and is continuing that has not been cured within the period provided in Section 9.4.1 of the License, and that default has not been waived by CLIENT/AGENCY under the License.

11.3 Exercise of Rights. So long as a Default has occurred and is continuing, the defaulting Party may not exercise any right to terminate this SPPA and, in the case of CLIENT/AGENCY Default, any right to purchase the System.

12. Remedies Following Default.

12.1 CLIENT/AGENCY's Remedies On Occurrence of a Provider Default.

12.1.1 Termination. If a Provider Default as described in Section 11.2 above has occurred and is continuing, and if Provider has failed to correct or cure the condition within the cure period specified above) causing a Provider Default, then, upon ten (10)

days further written notice of CLIENT/AGENCY's intent to terminate this SPPA as a result of such Provider's Default, subject to Section 14.17, this SPPA shall terminate and be of no further force or effect as of the last day of such ten (10) day period.

12.1.2 Other Rights and Remedies. In addition to all other legal and equitable rights and remedies available by law, if any Provider Default described under Section 11.2 has occurred and CLIENT/AGENCY has terminated this SPPA as a result thereof in accordance with the terms of Section 12.1.1 above, then CLIENT/AGENCY's additional remedies in respect of such Provider Default may at CLIENT/AGENCY's election include, but shall not be limited to, CLIENT/AGENCY assuming possession and ownership of the System by payment of the Fair Market Value of the System, reduced by CLIENT/AGENCY's costs incurred in enforcing the Provider Default and exercising remedies, in which case title to the System, together with any Environmental Attributes not previously transferred to CLIENT/AGENCY and or assigned to third parties, Environmental Incentives and Reporting Rights still associated with the System and the Energy and to the extent transferable, the remaining period, if any, on all warranties for the System, shall transfer to CLIENT/AGENCY upon such payment, at which time Provider shall surrender possession of the System free of any liens or encumbrances to CLIENT/AGENCY and execute all such documentation as is necessary to make effective all such transfers contemplated by this Section 12.1.2. The CLIENT/AGENCY may alternatively immediately terminate this SPPA, in which event the Provider shall promptly remove the system without causing any damage or disruption to the CLIENT/AGENCY operations, property or persons.

12.2 Provider's Remedies On Occurrence of an CLIENT/AGENCY Default. If a CLIENT/AGENCY Default as described in Section 11.1 has occurred and is continuing, and if CLIENT/AGENCY has failed to correct or cure the conditions (within the cure period specified above) causing a CLIENT/AGENCY Default, then upon ten (10) days further written notice of Provider's intent to terminate this SPPA as a result of such CLIENT/AGENCY Default, then, subject to Section 14.17, this SPPA shall terminate and be of no further force or effect as of the last day of such ten (10) day period; and, at Provider's sole election, either (a) CLIENT/AGENCY shall promptly pay the applicable Termination Value without Removal Costs, in which case title to the System, together with the Environmental Attributes, Environmental Incentives and Reporting Rights still associated with the System and the Energy and to the extent transferable, the remaining period, if any, on all warranties for the System and all other rights with respect to the System, shall transfer to CLIENT/AGENCY upon such payment; or (b) CLIENT/AGENCY shall promptly pay the applicable Termination Value with Removal Costs and Provider shall complete Removal of the System and Remediation of the Site in accordance with the terms of the License.

12.3 No Consequential Damages. Nothing in this SPPA is intended to cause either Party to be, and neither Party shall be, liable to the other Party for any lost business, lost profits or revenues from others or other special or consequential damages, all claims for which are hereby irrevocably waived by CLIENT/AGENCY and Provider.

12.4 Effect of Termination of Agreement. Unless this SPPA clearly provides otherwise, upon the

Termination Date or the Expiration Date, as applicable, any amounts then owing by a Party to the other Party shall become immediately due and payable and the then future obligations of CLIENT/AGENCY and Provider under this SPPA shall be terminated, subject to Section 14.17. Such termination shall not relieve either Party from obligations accrued prior to the effective date of termination or expiration, unless this SPPA clearly provides otherwise.

12.5 Limitation on Remedies, Liability, and Damages. FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS SOLE REMEDY OR MEASURE OF DAMAGES IS PROVIDED, THAT EXPRESS SOLE REMEDY OR MEASURE OF DAMAGES SHALL BE THE SOLE AND EXCLUSIVE REMEDY, THE OBLIGATOR'S LIABILITY SHALL BE LIMITED AS SET FORTH IN SUCH PROVISION, AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED IN THIS SPPA, THE OBLIGOR'S LIABILITY SHALL BE LIMITED TO DIRECT, AND ACTUAL DAMAGES ONLY. UNLESS EXPRESSLY PROVIDED IN THIS SPPA, NEITHER PARTY SHALL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT, IN CONTRACT OR OTHERWISE.

Notwithstanding the above, the CLIENT/AGENCY does not waive any rights or defenses available to the CLIENT/AGENCY under the Utah Governmental Immunity Act, including without limitation, any applicable limitation of judgments.

13. Indemnification and Insurance.

13.1 Indemnification by Provider.

13.1.1 Indemnification. Provider agrees that it shall indemnify, defend and hold harmless CLIENT/AGENCY, their officers, employees, agents, Trustees and representatives, and their permitted successors and assigns, from all suits, actions, claims, damages, and judgments of any character resulting from or arising out of Provider's performance, nonperformance, wrongful act or negligence that are brought against CLIENT/AGENCY by any Person, on account of any injury or death to any Person or any loss or damage to property, due to the acts or omissions of Provider or any of its officers, employees, subcontractors, assignees, or representatives.

13.1.2 Defense of Action. If requested by CLIENT/AGENCY, Provider shall assume on behalf of CLIENT/AGENCY, and conduct with due diligence and in good faith, the defense of CLIENT/AGENCY with counsel reasonably satisfactory to CLIENT/AGENCY, provided, however, that CLIENT/AGENCY shall have the right to select separate counsel to participate in its defense of such action at CLIENT/AGENCY's expense. If any claim, action, proceeding or investigation arises to which the indemnity provided for in this Section 13.1 applies, and Provider fails to

assume the defense of such claim, action, proceeding or investigation after having been requested to do so by CLIENT/AGENCY, then CLIENT/AGENCY may contest or, with the prior written consent of Provider, which consent shall not be unreasonably withheld, settle such claim, action, proceeding or investigation. All costs and expenses incurred by CLIENT/AGENCY in connection with any such contest or settlement shall be promptly paid by Provider on demand by CLIENT/AGENCY.

13.2 Insurance. At all times throughout the term of this Agreement, Provider shall maintain appropriate insurance in the minimum amounts as set forth in the CLIENT/AGENCY General Conditions.

14. Miscellaneous Provisions.

14.1 Notices. Unless a provision in this SPPA or the License specifically provides otherwise, all notices or other communications required or permitted hereunder shall be in writing, and shall be personally delivered (including by means of professional messenger service) or sent by overnight courier, or sent by registered or certified mail, postage prepaid, return receipt requested to the addresses set forth below, or sent by confirmed electronic facsimile to the facsimile numbers set forth below. All such notices or other communications shall be deemed received upon the earlier of: (i) if personally delivered or sent by overnight courier, the date of delivery to the address of the person to receive such notice; (ii) if mailed as provided above, on the date of receipt or rejection; or (iii) if given by electronic facsimile, when received by the other Party if received between Monday through Friday between 9 a.m. and 5:00 p.m. Mountain Time so long as such day is not a state or federal holiday and otherwise, on the next day, provided, however, that if the next day is a Saturday, Sunday, or a state or federal holiday, such notice shall be effective on the following business day.

TO LICENSEE:

NAME

Attn: _____

Address: _____

Phone: _____

Fax: _____

TO CLIENT/AGENCY:

NAME

Attn: _____

Address: _____

Phone: _____

Fax: _____

With a copy to:

NAME

Attn: _____

Address: _____

Phone: _____

All notices, communications and waivers under this SPPA to any entity who has or will make funding available to Provider to assist in financing the System, shall be sent to the name and address specified in a notice from Provider to CLIENT/AGENCY.

14.2 Authority.

14.2.1 Provider Representations. Provider hereby represents and warrants that:

(i) It is a corporation of the State of _____, duly organized, validly existing and in good standing under the laws of the State of _____ and has all requisite power and authority to enter into this SPPA, to perform its obligations hereunder and to consummate the transactions contemplated hereby;

(ii) The execution and delivery of this SPPA and the performance of Provider's obligations hereunder have been duly authorized by all necessary corporate action;

(iii) This SPPA is a legal, valid and binding obligation of Provider enforceable against Provider in accordance with its terms except as such enforcement may be limited by bankruptcy, reorganization, insolvency, or other law affecting creditors' rights generally and the general principles of equity;

(iv) To the best knowledge of Provider, as of the date of execution hereof, no approval of a Governmental Authority (other than any approvals that have been previously obtained or disclosed in writing to CLIENT/AGENCY) is required in connection with the due authorization, execution and delivery of this SPPA by Provider or the performance by Provider of its obligations hereunder which Provider has reason to believe that it will be unable to obtain in due course on or before the date required for Provider to perform such obligations;

(v) As of the date of execution hereof, Provider (a) has taken all required actions, if any, necessary to comply with the Public Utility Holding Company Act of 2005, as

amended, (b) is not intending to dedicate its property to public use, (c) is not a “public utility” (as defined in any Applicable Laws and Requirements) and (d) is not an electric utility subject to rate regulation by any Governmental Authority; and

(vi) Neither the execution and delivery of this SPPA by Provider nor compliance by Provider with any of the terms and provisions hereof (i) conflicts with, breaches or contravenes the provisions of the articles of formation or operating agreement of Provider or any contractual obligation of Provider or (ii) results in a condition or event that constitutes (or that, upon notice or lapse of time or both, would constitute) an event of default under any material contractual obligation of Provider.

14.2.2 CLIENT/AGENCY Representations. CLIENT/AGENCY hereby represents and warrants that:

(i) It is a public educational institution and a subdivision of the State of Utah, duly existing under the laws of the State of Utah and has all requisite power and authority to enter into this SPPA, to perform its obligations hereunder and to consummate the transactions contemplated hereby;

(ii) The execution and delivery of this SPPA and the performance of its obligations hereunder have been duly authorized by all necessary action;

(iii) This SPPA is a legal, valid and binding obligation of CLIENT/AGENCY, enforceable against CLIENT/AGENCY in accordance with its terms except as such enforcement may be limited by the Utah Constitution or other law affecting creditors’ rights generally and the general principles of equity; and

(iv) CLIENT/AGENCY has not entered into any contracts or agreements with any other person which conflict with or would otherwise impair the CLIENT/AGENCY’s ability to perform its obligations under this SPPA.

14.3 Assignment. Except for Provider’s assignment of this SPPA to a Lender, the duties and obligations of Provider under this SPPA shall not be assignable by the Provider in whole or in part without the prior written consent of CLIENT/AGENCY and upon such reasonable terms and conditions that CLIENT/AGENCY may require. CLIENT/AGENCY’s consent to one assignment shall not be deemed consent to any subsequent assignment.

14.3.1 Event of Default. In the event of Provider Default by any assignee or successor to Provider, CLIENT/AGENCY may proceed directly against Provider without the necessity of exhausting remedies against such assignee or successor.

14.3.2 Unique Expertise. Notwithstanding the foregoing, Provider acknowledges that CLIENT/AGENCY is relying upon the unique expertise and capability of Provider. Provider must demonstrate that any proposed assignee has both the financial capacity and the technical ability to perform the obligations required under this SPPA at a level deemed appropriate by CLIENT/AGENCY.

14.3.3 Definition of Assignment. For purposes of this section, the dissolution, liquidation, sale, assignment, transfer or disposition, directly or indirectly, of any type which results in a change of control of Provider shall be deemed an assignment of this SPPA. Change of control shall be as defined in common law, and may be the result of a single or multiple related transactions which result in the cumulative transfer of all or substantially all of the assets of Provider, or more than fifty percent (50%) of the voting stock or equity interests of Provider. Provider shall have a continuing duty to keep CLIENT/AGENCY fully apprised in writing of any material changes in the Provider's business structure or status.

14.3.4 Collateral Security. Nothing in this Section 14.3 shall prohibit Provider from assigning or granting a lien on, for purposes of collateral security, Provider's rights to payments under this SPPA. However, under no circumstances, and notwithstanding any other provision of this SPPA, including any Exhibits, shall Provider, or anyone have the right to place a lien or encumbrance on any property owned by the CLIENT/AGENCY.

14.3.5 Notice. For any assignment for which CLIENT/AGENCY consent is required, Provider shall provide sixty (60) days notice to CLIENT/AGENCY regarding its intent to assign this SPPA, which shall include adequate supporting information to verify that the proposed assignee is qualified to assume Provider's rights and obligations under this SPPA.

14.3.6 Financing. Provider may pledge its interest in this SPPA, including any rights to payment and the System, as security for loans or financing. If Provider's lender requests additional terms and conditions to those already provided in this SPPA, CLIENT/AGENCY agrees to consider those requests, and will not unreasonably withhold its consent to those requests. CLIENT/AGENCY acknowledges that Provider may be financing the acquisition and installation of the System with financing accommodations from one or more financial institutions and that Provider's obligations will be secured by, among other collateral, a pledge or collateral assignment of this SPPA and Provider's rights to payment and a first security right in the System. In order to facilitate such necessary financing, and with respect to any such financial institutions of which Provider may notify CLIENT/AGENCY in writing (each, a "Lender") CLIENT/AGENCY agrees to classification of the System as personal property only. For purposes of this paragraph, The System shall not include the roofing system or any other part of the facilities that are critical for the operation of the CLIENT/AGENCY or the Site. CLIENT/AGENCY acknowledges that part of the collateral securing financial accommodations of Provider may be the granting of a first priority security interest ("Security Interest") in the System to a Lender to be perfected by a filing under the Uniform Commercial Code (UCC) and to be documented in a recorded notice on title to the Site. CLIENT/AGENCY agrees to such filings so long as they reflect the Parties' agreement that any filing to perfect or provide notice of the Security Interest clearly document the Parties' intent that the System shall constitute personal property only and is not considered a fixture to the Site. These filings by Provider or Lender may include a UCC filing of a Financing Statement (FORM UCC-1) which clearly covers the System as personal property only and not as a fixture.

14.4 Successors and Assigns. The rights, powers and remedies of each Party shall inure to the benefit of such party and its successors and permitted assigns.

14.5 Entire Agreement. This SPPA (including all exhibits, attachments and other documents incorporated herein), the License, and the Contract Documents represent the entire agreement between the parties to this SPPA with respect to the subject matter hereof and thereof and supersede all prior and contemporaneous oral and prior written agreements. In the event of any conflict between the provisions of this SPPA and the provisions of the License, the provisions of this SPPA shall govern and control.

14.6 Amendments to Agreement. This SPPA shall not be amended, modified or supplemented without the written agreement of Provider and CLIENT/AGENCY at the time of such amendment, modification or supplement.

14.7 Waivers; Approvals. No waiver of any provision of this SPPA shall be effective unless set forth in writing signed by the Party making such waiver, and any such waiver shall be effective only to the extent it is set forth in such writing. Failure by a Party to insist upon full and prompt performance of any provision of this SPPA, or to take action in the event of any breach of any such provisions or upon the occurrence of any Provider Default or CLIENT/AGENCY Default, as applicable, shall not constitute a waiver of any rights of such Party, and, subject to the notice requirements of this SPPA, such Party may at any time after such failure exercise all rights and remedies available under this SPPA with respect to such Provider Default or CLIENT/AGENCY Default. Receipt by a Party of any instrument or document shall not constitute or be deemed to be an approval of such instrument or document. Any approvals required under this SPPA must be in writing signed by the Party whose approval is being sought.

14.8 Partial Invalidity. In the event that any provision of this SPPA is deemed to be invalid by reason of the operation of Applicable Laws and Requirements, Provider and CLIENT/AGENCY shall negotiate an equitable adjustment in the provisions of the same in order to effect, to the maximum extent permitted by law, the purpose of this SPPA (and in the event that Provider and CLIENT/AGENCY cannot agree, then such provisions shall be severed from this SPPA) and the validity and enforceability of the remaining provisions, or portions or applications thereof, shall not be affected by such adjustment and shall remain in full force and effect.

14.9 Execution in Counterparts. This SPPA may be executed in counterparts, and all said counterparts when taken together shall constitute one and the same agreement.

14.10 Governing Law; Jurisdiction; Forum. This SPPA shall be governed by and construed in accordance with the laws of the State of Utah. Venue for any legal proceeding shall be in Salt Lake County, Utah.

14.11 No Third Party Rights. This SPPA is exclusively for the benefit of the parties to this SPPA, their successors and permitted assigns and Persons expressly benefited by the indemnity provisions of this SPPA. No other Person (including, without limitation, tenants of the Site) shall be entitled to rely on any matter set forth in, or shall have any rights on account of the performance or non-performance by any Party of its obligations under, this SPPA.

14.12 No Agency. This SPPA is not intended, and shall not be construed, to create any association, joint venture, agency relationship or partnership between the Parties or to impose any such obligation or liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act as or be an agent or representative of, or otherwise bind, the other Party.

14.13 No Public Utility. Nothing contained in this SPPA shall be construed as expressing an intent by Provider to dedicate its property to public use or subject itself to regulation as a public utility under any Applicable Laws and Requirements.

14.14 Cooperation. Each of CLIENT/AGENCY and Provider, if requested by the other Party, will take such actions or execute such additional documents, instruments and assurances and take such additional actions as are reasonably necessary and desirable to carry out the terms and intent hereof.

14.15 Setoff. Except as otherwise set forth herein, each Party reserves to itself all rights, set-offs, counterclaims and other remedies and defenses to which it is or may be entitled, arising from or out of this SPPA or the License or arising out of any other contractual arrangements between the Parties. All outstanding obligations to make, and rights to receive, payment under this SPPA or the License may be offset against each other.

14.16 Proprietary Information. Provider acknowledges that CLIENT/AGENCY is a governmental entity subject to the Utah Government Records Access and Management Act, Utah Code Ann., Section 63G-2-101 et seq., as amended (“GRAMA”); that certain records within CLIENT/AGENCY’s possession or control, including without limitation, this Agreement, may be subject to public disclosure; and that CLIENT/AGENCY’s confidentiality obligations shall be subject in all respects to compliance with GRAMA. Pursuant to Section 63G-2-309 of GRAMA, any confidential information provided to CLIENT/AGENCY that Provider believes should be protected from disclosure must be accompanied by a written claim of confidentiality and a concise statement of reasons supporting such claim. Notwithstanding any provision to the contrary in the Agreement, CLIENT/AGENCY may disclose any information or record to the extent required by GRAMA or otherwise required by law, and to CLIENT/AGENCY’s attorneys, accountants, consultants on a need to know basis.

14.17 Survival. Except as provided by the Utah Governmental Immunity Act, any provision of this SPPA that expressly or by implication comes into or remains in full force shall survive termination or expiration of this SPPA, including but not limited to Sections 6 (as to obligations that have accrued prior to termination), 7, 10.2, 12, 13, and 14. In the event that this SPPA is terminated according to its terms and the License is still in effect, the provisions of this SPPA, which are incorporated by reference in the License shall survive this SPPA’s termination for use in the interpretation and construction of the License.

No provision herein shall waive any provision of the Utah Governmental Immunity Act.

14.18 Applicable Laws and Requirements. Provider shall keep its self fully informed of all Applicable Laws and Requirements, and all changes thereto, which in any manner affect the contract

and all performance thereof, including but not limited to any manuals listed in the License. Provider shall comply with all Applicable Laws and Requirements then in effect, including the giving of all notices necessary and incident to proper and lawful prosecution of the work, and requires the payment of Prevailing Wage Rates to workers on the installation projects, as well as obtaining necessary bonding, as outlined in Sections 3.7.2 and 3.7.3 of the SLA and all changes thereto. If any discrepancy or inconsistency is discovered between this SPPA and any such Applicable Laws and Requirements then in effect, Provider immediately shall report the same in writing to CLIENT/AGENCY.

14.19 Requisite Standards. Provider shall cause the System to be installed with due care by qualified employees, representatives, agents or contractors of Provider and shall conform to applicable industry standards and practices, Applicable Laws and Requirements, and the Contract Documents. If Provider fails to meet any of the foregoing standards, Provider shall perform at its own cost, and without additional charge to CLIENT/AGENCY, the professional services necessary to correct errors and omissions, including any necessary replacement of the System, that are caused by Provider's failure to comply with the above standard so that the System is capable of providing the Energy at a reasonably continuous rate.

14.20 Miscellaneous. Neither CLIENT/AGENCY nor any person related to CLIENT/AGENCY shall have the right to operate or be deemed to operate the System for purposes of Section 7701(e)(4)(A)(i) of the Internal Revenue Code, 26 USC section 7701(e)(4)(A)(i).

IN WITNESS WHEREOF, the parties hereto have duly executed and delivered this SPPA as of the date set forth above.

NAME

Signature Date

Title: _____

Please type/write name clearly

Federal Identification Number

CLIENT/AGENCY

NAME Date

Title: _____

Reviewed by:

NAME Date

Title: _____

NAME Date

Title: _____

EXHIBIT C-1 ESTIMATED ANNUAL PRODUCTION

EXHIBIT C-2 PRICING

Provider shall bill all energy produced by the array on the same billing cycle day, or nearest day to RMP’s or the Local Utility’s billing cycle, from readings obtained from the XX Meter shown in the above diagram. CLIENT/AGENCY shall purchase from Provider the Energy generated by the System.

Initial Solar Energy Tariff Rate (\$/kWh or “kWh Rate”) = \$0.0325 (example)

Solar Energy Rate Annual Escalator (%) = 2% per year (example)

“kWh Rate” by year during PPA term: [subject to change pending outside tax counsel review and final engineering.]

Year	kWh Rate	Year	kWh Rate
1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

“Prepayment Guaranteed Monthly Energy” shall be as follows:

[insert table]

Billing and Payment.

Monthly Charges. Purchaser shall pay Seller monthly for the electric energy generated by the System and delivered to the Delivery Point at the \$/kWh rate shown in Exhibit C-2 – Pricing. The monthly payment for such energy will be equal to the applicable \$/kWh rate multiplied by the number of kWh of energy generated during the applicable month, as measured by the System meter.

Monthly Invoices. Seller shall invoice Purchaser monthly. Such monthly invoices shall state (i) the amount of electric energy produced by the System and delivered to the Delivery Point, (ii) the rates applicable to, and charges incurred by Purchaser under this Agreement, and (iii) the total amount due from Purchaser.

Utility Invoices. Purchaser shall authorize the Utility to send to Seller duplicates of any bills sent to Purchaser. If Utility does not permit duplicate bills to be sent to Seller, Purchaser shall, promptly upon receipt of each bill, make a photocopy of each bill and mail the copy to Seller. Purchaser shall pay all charges assessed by the Utility to the Facility.

Taxes. See Section 6.4. Taxes

Payment Terms. See Section 6. Billing and Payment.

Solar Array & Meter Diagram Attached.

DRAFT

EXHIBIT D



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

DFCM

(EXAMPLE)

SOLAR SITE LICENSE AGREEMENT
Solar PV Energy System
Design, Construction, Operation,
Maintenance and Financing

CLIENT/AGENCY, ADDRESS

DFCM Project No. 13055300

Issue Date: April 30, 2013

<u>AGREEMENT COVERING SITE LOCATED AT:</u> CLIENT/AGENCY, ADDRESS	
<u>AGENCY</u> AGENCY NAME	<u>LICENSEE</u> NAME

This Site License Agreement #XXXX (“SLA” or “Agreement”), made and entered into as of _____, (the “Effective Date”) by and between Client/Agency, a public educational institution organized and existing pursuant to Utah law (“CLIENT/AGENCY”), and NAME, a Corporation of the State of _____ (“Licensee”), whose address is _____, each a “Party” and collectively referred to as “the Parties.”

RECITALS:

WHEREAS, CLIENT/AGENCY is the Owner of, and has jurisdiction and control over the selected BUILDING / SITE, located in XXX, Utah, as depicted and described in Exhibits D-1 and D-2 attached hereto and incorporated by reference herein. (“Site”);

WHEREAS, Licensee desires to obtain, and CLIENT/AGENCY desires to provide, a license to use a portion of the Site to install, maintain and operate solar photovoltaic System, which Area (the “Licensed Area”) are more particularly depicted and described in Exhibits D-1 and D-2 attached hereto and incorporated by reference herein;

WHEREAS, Licensee desires to sell, and CLIENT/AGENCY desires to purchase, electricity from the solar photovoltaic System (“System”), as more particularly described in the Solar Power Purchase Agreement (“SPPA”) between CLIENT/AGENCY and Licensee of even date herewith for Licensee’s provision of the electricity from the System to CLIENT/AGENCY; and

WHEREAS, Licensee wishes to obtain and CLIENT/AGENCY wishes to grant this SLA for the purposes of: (1) constructing and operating the solar power System in the Licensed Area to create long term energy cost savings, and price stability; and (2) to develop solar power System that offer high public visibility and a sense of community ownership associated with the CLIENT/AGENCY, with the goal of developing renewable energy showcases with a very high interpretive value.

AGREEMENT:

NOW, THEREFORE, in consideration of the Recitals and the mutual promises set forth in this SLA, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

ARTICLE 1 -- DEFINITIONS: CONFLICTS

1.1 Definitions. The definitions in the SPPA shall govern this Agreement unless this Agreement provides a different definition. In the event that the SPPA is terminated according to its terms and this SLA is still in effect, the definitions contained in the SPPA shall survive its termination for use in this SLA. In addition to the terms that are defined in the SPPA and elsewhere in this SLA, the following terms are used in this Agreement:

“Alterations” has the meaning set forth in Section 4.4.

“Construction Criteria” means all applicable codes and regulations in the State of Utah.

“Contract Documents” has the meaning as defined in the SPPA.

“Expiration Date” has the meaning set forth in Section 2.1.

“Hazardous Substances” has the meaning set forth in Section 5.6.5(ii).

“Installation Work” has the meaning set forth in Section 4.2.3.

“Licensed Area” has the meaning set forth in the Recitals and as more specifically described at Exhibit D-2.

“Licensee” means the entity identified above, which holds the license to install and operate the System at the Site under this SLA and sell Energy to the CLIENT/AGENCY LAC facility pursuant to the SPPA. Licensee as used herein, in terms of any obligations or requirements, shall be deemed to also refer to all agents, subcontractors, suppliers, and anyone else that Licensee authorized to perform under this SLA or anyone for whom the Licensee may be liable for, at any tier.

“Local Electric Utility” shall mean Rocky Mountain Power (“RMP”) or other electric power utility serving the CLIENT/AGENCY LAC.

“O & M Work” has the meaning set forth in Section 5.6.1.

“Removal” has the meaning set forth in Section 7.1.

“Restoration” has the meaning set forth in Section 7.1.

“Site” has the meaning set forth in the Recitals and as more specifically described at Exhibit F-1.

“Solar Power Purchase Agreement” or “SPPA” means that certain CLIENT/AGENCY–Solar Power Purchase Agreement of even date herewith between the CLIENT/AGENCY and Licensee as Provider, which governs the terms by which CLIENT/AGENCY LAC facility will purchase from Licensee the energy generated by the System at the Site(s).

“System” means the approximately (INSERT SIZE) kW solar photovoltaic generating System (as more specifically defined in this SLA and the SPPA, and as such System may be modified from time to time in accordance with Section 4.4 of this SLA and the SPPA.

“Termination Date” has the meaning set forth in Section 2.1.

“Work” means the Installation Work and/or the O & M Work.

1.2 Conflicts with the SPPA. Except for the definitions above, should any provision, term or requirement in this SLA conflict with any provision, term or requirement in the SPPA, this SLA shall be controlling, unless explicitly provided otherwise in this SLA.

ARTICLE 2 -- TERM

2.1 General. The term of this Agreement shall commence on the Effective Date and shall expire on the date (the "Expiration Date") that is one hundred twenty days following the expiration or termination of the SPPA.

2.2 Licensee shall provide CLIENT/AGENCY a separate document setting forth Licensee’s warranty obligations with respect to the System (the “Warranty”). Licensee hereby disclaims all other warranties except as expressly stated in this SLA, the SPPA or the Warranty.

This shall be a separate warranty document provided by the System Owner/Site Licensee, which sets forth the system warranty, addressing three key elements:

(a) A warranty for materials and workmanship specific to the system installation, which shall be a minimum of five (5) years from the date of facility commissioning,

(b) A statement that the existing roof warranty, as provided to Licensee by the CLIENT/AGENCY, will not be impacted or jeopardized by the solar installation or any other related activity by the Licensee during the term of the License, and a warranty that in the event that such roof warranty is declared void or modified by roofing provider, Licensee shall warranty as an offset.

(c) A warranty for the specific solar materials employed in the facility, e.g., Solar Modules, Solar Inverter(s), and Solar Racking System, respectively, as provided in writing by the manufacturers of same, called out in the Licensee’s statement of System Warranty, and with manufacturer warranty documents provided by attachment thereto.

2.3 Cross-Default with SPPA. Any Provider Default under the SPPA shall be deemed a default by Licensee under this SLA.

ARTICLE 3 -- USE

3.1 Permitted Use.

(a) Subject to CLIENT/AGENCY's reserved rights in Sections 3.3 to 3.7 of this SLA, and the terms and conditions of this SLA, CLIENT/AGENCY grants to Licensee:

(1) a non-exclusive license for ingress, egress and access across the Site(s) and other CLIENT/AGENCY properties necessary to access the Licensed Area; and

(2) a license to use the Licensed Area within the Site for the construction (and such other portions of the Site as are reasonably necessary and approved, in advance and in writing by CLIENT/AGENCY, for laydown and staging during construction of the System), maintenance and operation of the System for the production, transformation and transmission of solar photovoltaic generated Energy, in addition to the construction of semi-permanent facility sponsorship signage, as approved in advance and in writing by CLIENT/AGENCY and related materials, and for no other use or purpose (the "Permitted Use").

(b) Licensee shall complete the installation of the System, restore and clean up those portions of the Site and the Licensed Area not occupied by the System that were impacted by construction of the System no later than 10 calendar days after the date the installation is substantially complete. In addition, Licensee shall complete the installation of a functioning interpretational kiosk, to mutually agreed specification, and a location determined by CLIENT/AGENCY, which shall be finally completed on or before (INSERT DATE).

3.2 **No CLIENT/AGENCY Warranties.** Licensee acknowledges and agrees that, except as expressly set forth in this SLA, CLIENT/AGENCY has made no statements, representations or warranties regarding the Site. Licensee acknowledges and agrees that except for the representations and warranties expressly set forth in this SLA and the information provided by CLIENT/AGENCY to Licensee under Section 4.2.7 of this SLA, Licensee has not relied and will not rely on any statement, representation, warranty, or information provided by CLIENT/AGENCY regarding the Site or the fitness of the Site for any particular use of Licensee. CLIENT/AGENCY expressly disclaims and Licensee waives all implied warranties including, without limitation, any warranty of suitability or fitness of the Site or the Licensed Area for any particular use or purpose.

3.3 **Limitation on Use.** Licensee shall not provide the System for the use of others without first obtaining CLIENT/AGENCY's written consent. Licensee may use the Licensed Area only for the construction, operation and maintenance of the System to be operated for the benefit of CLIENT/AGENCY in accordance with the SPPA and this SLA.

3.4 **Prohibited Uses.** Licensee shall not use or allow the Site to be used for any unlawful purposes, nor shall Licensee cause, maintain or permit any nuisance in, on or about the Site. Licensee will not use the Site, nor allow the Site to be used, for any purpose inconsistent with this SLA or the SPPA.

3.5 No Interference with CLIENT/AGENCY Uses/Quiet Enjoyment. Licensee must install and maintain the System in a manner that minimizes, to the fullest extent commercially practicable, inconvenience to and interference with CLIENT/AGENCY's use of the Site and the CLIENT/AGENCY LAC, other CLIENT/AGENCY property and improvements located on the Site and the CLIENT/AGENCY LAC. CLIENT/AGENCY shall maintain continuing control over the Site, the CLIENT/AGENCY LAC, and all other CLIENT/AGENCY property and improvements located thereon. CLIENT/AGENCY may construct, reconstruct, modify or make alterations to the Site so long as such activities do not cause material interference with the insolation (including shading) or the operation of the System, as such insolation exists as of the effective date of this SLA. However, it is provided that occasional and temporary interference that may result from CLIENT/AGENCY's operations on the Site as CLIENT/AGENCY's operations change over time shall not be considered a violation of this Section 3.5 unless such interference materially affects the generation of Energy by the System to the extent that the System cannot provide at least 90% of the estimated electricity production of the System for a period of thirty (30) consecutive days as determined by the National Renewable Energy Laboratory (NREL) "PV Watts Calculator" for the same time period. The calculator is located on the internet at:
<http://rredc.nrel.gov/solar/calculators/PVWATTS/version1/US>

3.6 Subordination to Existing Leases, Easements and Rights of Way. Licensee acknowledges and agrees that this SLA and all rights of Licensee are subject and subordinate to all existing leases, easements, rights of way, declarations, restrictions or other matters of record with respect to the Site. CLIENT/AGENCY reserves the right, under mutual consent with Licensee, to grant to parties other than Licensee additional licenses, easements, leases or rights of way, whether recorded or unrecorded, that do not interfere (including shading) with Licensee's use of the Site and the System.

3.7 Applicable Laws and Requirements; Permits and Approvals.

3.7.1 Compliance with Laws.

(a) All activities conducted by Licensee pursuant to this SLA must comply with all applicable State, Federal and local laws, ordinances, rules, regulations, rulings, and policies (including those of the CLIENT/AGENCY) and any manuals listed in Exhibit XXX attached hereto and by this reference incorporated herein, zoning requirements, CLIENT/AGENCY design standards, specifications and general conditions, and all issued permits and licenses (collectively "Applicable Laws and Requirements"). All activities conducted by Licensee pursuant to this SLA shall be conducted at Licensee's own cost and expense.

(b) Licensee shall be solely responsible for designing and operating the System in a manner consistent with the Contract Documents, National Electric Code safety practices and all applicable laws or regulations for utilities at the solar Site(s). All design plans and specification shall be subject to the CLIENT/AGENCY prior review and approval.

(c) Licensee shall, in its use of the Site(s), comply with all rules, orders, regulations,

requirements and recommendations of CLIENT/AGENCY, related to the protection of the Site and the improvements thereon.

3.7.3 100% Performance Bond for a period of one year. Before starting any work on the System, the Licensee must file performance bonds with DFCM in accordance with the Contract Documents and as required by Utah law.

3.7.4 Permits and Approvals. In accordance with Exhibit B attached hereto and by this reference incorporated herein, Licensee shall secure all permits and governmental approvals necessary for the construction, maintenance and operation of the System. Before commencing any work on the System, Licensee shall provide the CLIENT/AGENCY with copies of all required permits, approvals and conditions issued by applicable Federal, State and local governmental entities and by the local utility service company. Licensee must respond appropriately and in conformance with all Applicable Laws and Requirements to any notice from any governmental authority having jurisdiction over any of Licensee's activities under this SLA, that Licensee's operation of, or any activities that relate to, the System, constitute a violation of any of the Applicable Laws and Requirements until the violation, if any, is corrected and the applicable governmental authority concurs that the violation is corrected. Licensee's response, when required under such a notice, must include the immediate suspension of use of the System. Licensee shall immediately notify CLIENT/AGENCY of any notice of alleged violation with respect to the System received from a governmental authority other than the CLIENT/AGENCY. Licensee agrees to promptly take all reasonable steps necessary to either: (a) contest the notice; or (b) eliminate or correct such alleged violation. CLIENT/AGENCY may consider any violation that Licensee does not eliminate within thirty (30) calendar days of receipt of written notice from CLIENT/AGENCY or the governmental authority agency to be a material breach of this SLA and treat it as a default by Licensee. It is provided, however, that such 30-day period shall not commence so long as Licensee is: (a) contesting in good faith a notice that does not involve an reasonable threat to public health or safety; or (b) if Licensee commences to cure such violation during such 30-day period and is diligently and in good faith attempting to effect such cure. Under these circumstances and as long as there remains no reasonable threat to public health or safety, CLIENT/AGENCY shall extend the period for a reasonable time necessary to cure or resolve the alleged violation and a default shall not be deemed to exist during that extended period. In the event a violation occurs that poses an reasonable threat to public health or safety, a willful failure of Licensee to immediately: (a) take curative action; (b) suspend use of the System, if required; or (c) notify CLIENT/AGENCY in accordance with this Section 3.7.4, wherein, after receiving such notice of violation, CLIENT/AGENCY, at its sole discretion, may find such violation constitutes grounds for termination of this SLA by CLIENT/AGENCY.

3.8 No Infringement/Copyright and Patent Obligations. Licensee shall not infringe upon any third party's intellectual property or other proprietary rights. Licensee shall pay all royalties and license fees which may be required for the methodology, techniques, and other intellectual property used or applied in connection with constructing, maintaining and operating the System as well as all reasonably anticipated or customary associated uses related to this License, including, but not limited to the kiosks. Licensee shall indemnify and defend the

CLIENT/AGENCY, and their officers, employees and agents against all suits or claims for infringement of any intellectual property or other proprietary rights, patent, copyright, trade secret, trade name, trademark or any other proprietary or contractual rights relating to the System and shall hold CLIENT/AGENCY, and their officers, employees and agents harmless from loss, expense, claim or cost on account thereof.

ARTICLE 4 – CONSTRUCTION, INSTALLATION AND TESTING OF SYSTEM

4.1 Ownership of System.

4.1.1 Title to System. Subject to the rights provided to CLIENT/AGENCY under other terms of this SLA, the System and all Alterations, additions, improvements or installations made thereto by Licensee and all Licensee property used in connection with the installation, operation and maintenance of the System is, and shall remain, the personal property of Licensee (“Licensee Property”). Licensee shall be entitled to file one or more precautionary UCC Financing Statements or fixture filings, as applicable, in such jurisdictions as it deems appropriate with respect to the System and the Licensee Property in order to protect the rights of Licensee, its owners or any Mortgagee in the System or the Licensee Property. Notwithstanding the foregoing, under no circumstances shall Licensee be able to encumber or file any lien on personal or real property of CLIENT/AGENCY.

4.1.2 Possessory Interest Taxes. Licensee acknowledges that there may be taxes imposed as a result of the System and this SLA, and that those taxes, if imposed, shall be Licensee’s obligation and shall be paid as and when required by the applicable taxing authority.

4.2 Installation and Operation of System.

4.2.1 In General. The construction and installation of the System and all related matters are subject to, and shall be substantially completed in accordance with, the terms and conditions of the Contract Documents, the Construction Criteria, and the Initial Approval Procedures set forth in Exhibit B and C. In constructing the System, Licensee shall: (1) obtain all necessary permits and authorities for construction and operation of System, including without limitation those permits listed in Exhibit B; (2) design and construct the System in a manner consistent with the highest standards of the industry, such that all components are new and not previously used in any other applications; (3) comply with all interconnection requirements required by the Local Electric Utility under the Net Metering and Interconnection Agreement (as defined in the SPPA) between the Local Electric Utility and the CLIENT/AGENCY relating to the Energy; and (4) as described in the MIan RFP Document and Exhibit B, submit design, construction, maintenance and any operation plans to CLIENT/AGENCY for prior approval under Section 4.2.2 of this SLA. Plans must be submitted to, and approved by the CLIENT/AGENCY before the CLIENT/AGENCY will issue any Notice to Proceed with the construction.

4.2.2 CLIENT/AGENCY Review; Limitations. No construction or installation by Licensee shall begin until CLIENT/AGENCY has reviewed and approved the completed plans and specifications for the System and all required permits have been issued to Licensee, in accordance with Exhibit XXX-I. Licensee shall prepare and submit to CLIENT/AGENCY and

(to the full extent required by law, regulation, tariff or existing agreement) to the Local Electric Utility, for review and prior approval, detailed engineering drawings showing the plan and array configuration for the Licensed Area, detailed plans of all structures, electrical System, interfaces with the grid electricity supply and other components of the System, and a detailed description of any necessary facility or utility infrastructure improvements or modifications in accordance with a schedule to be agreed upon with CLIENT/AGENCY. In no event shall such review be interpreted as making CLIENT/AGENCY responsible for the design, construction, operation or maintenance of the System or in any way relieve the Licensee of its liability. Licensee shall at its sole cost and expense design, build, own, maintain and operate the System in compliance with the Contract Documents, the Construction Criteria, this SLA and the SPPA.

4.2.3 Installation. Subject to Section 4.2.4, Licensee must cause the System to be designed, engineered, installed and constructed (the “Installation Work”) substantially in accordance with the terms of this SLA, the Contract Documents, the Construction Criteria, and in compliance with any existing or referenced Technical Requirements, as provided by CLIENT/AGENCY or other agency with jurisdiction over the project(s) construction. Licensee shall organize the procurement of all materials and equipment for the Installation Work and maintain the same at the Licensed Area. Subject to the terms of this SLA, Licensee shall perform the Installation Work at the Licensed Area on a schedule, including any schedule required or provided as part of the Contract Documents, which if not identified in the procurement process, it is subject to mutual agreement between the Parties, and in a manner that minimizes inconvenience to and interference with the CLIENT/AGENCY LAC and their invitees’ use of the Licensed Area to the extent commercially practical.

4.2.4 Conditions Precedent to Commencement of Construction and Installation.

Commencement by Licensee of construction and installation activities with respect to the Licensed Area shall be subject to the satisfaction of the following conditions precedent (in addition to CLIENT/AGENCY's approval of the Installation Work schedule under Section 4.2.3), each of which is for the benefit of both Parties and may be waived only by written mutual agreement of the Parties:

(i) CLIENT/AGENCY and the Local Electric Utility (to the full extent required by law, regulation, tariff or existing agreement) shall have approved Licensee’s detailed engineering drawings of the System and interconnection facility pursuant to Section 4.2.2;

(ii) Licensee shall have entered into the applicable contract(s) with the CLIENT/AGENCY and all other necessary entities for the complete construction and installation of the System;

(iii) Licensee and the Local Electric Utility shall have obtained any other permits, licenses and other approvals required by Applicable Laws and Requirements for the construction, interconnection, net metering and operation of the System, and the requisite line extension of the Local Electric Utility’s distribution facility, including any necessary UPSC approvals ;

(iv) Licensee shall have obtained and submitted to CLIENT/AGENCY,

certificates of insurance evidencing the coverages required by Article 6 of this SLA or evidence to the satisfaction of CLIENT/AGENCY of appropriate levels of self-insurance coverage; all subject to approval of the CLIENT / DFCM Office of Risk and Insurance Management.

(v) Prior to CLIENT/AGENCY issuing a Notice to Proceed on any work being performed for construction of the System, Licensee shall post, or require its prime construction contractor to post, a performance bond in accordance with the Contract Documents and the Construction Criteria.

On satisfaction of the conditions described in this Section 4.2.4, CLIENT/AGENCY shall issue to Licensee a written Notice to Proceed (the "Notice to Proceed") instructing Licensee to begin construction and installation activities for the System in the Licensed Area. Licensee agrees and acknowledges that it shall not begin such activities prior to receipt of said Notice to Proceed.

4.2.5 Utility Approvals. (a) Licensee shall be responsible for preparing applications and obtaining all permits, licenses and approvals required for the performance of Work. Should the Local Electric Utility refuse or fail to approve the interconnection of the System with respect to the Site or require equipment in addition to the equipment set forth in this SLA in connection with the Site, Licensee immediately must notify CLIENT/AGENCY of the Local Electric Utility's refusal or failure to approve. In these circumstances, CLIENT/AGENCY and Licensee promptly must negotiate in good faith to develop an amendment to this SLA, an amendment to the SPPA, or a change order, to address the requirements of the Local Electric Utility.

(b) Licensee must ensure that the System(s) complies with all applicable laws and rules for interconnected distributed generation System and with all applicable State, Federal and local codes. Licensee must ensure that the System interconnection with the Local Electric Utility grid complies with the interconnection protocols of the Local Electric Utility. Licensee shall be responsible to have current licenses and all permits to do the Work indicated before a Notice to Proceed is issued. Licensee shall be responsible for any taxes or fees involved in constructing, owning, operating and maintaining the System.

4.2.7 Site Adequacy. Licensee has inspected the Site and the Licensed Area and determined for itself the suitability of the Licensed Area for the construction, operation and maintenance of the System. Licensee has determined the Site is suitable for the System, including, but not limited to, the roof materials and condition, the preexisting structural conditions, wind, snow and seismic characteristics, drainage, slope and soil conditions.

4.3 Licensee's Access. Licensee acknowledges that, prior to the effective date of this SLA, Licensee was provided access to the Site in order to conduct feasibility and configuration assessments, environmental assessments, and other inspections of the Site, as Licensee deemed necessary. Licensee's access to the Site shall be subject to all procedures reasonably adopted from time to time by CLIENT/AGENCY including, but not limited to, those certain manuals listed in Exhibit B and the procedures addressed in this Section. Only Licensee's employees,

agents and contractors retained by Licensee and identified in a written notice to CLIENT/AGENCY shall be permitted access to the Site; provided however, that with prior written approval by CLIENT/AGENCY, Licensee and its employees, agents, contractors and invitees may access the Site for publicity purposes pursuant to Section 9.2 of this SLA. Licensee shall be permitted to access the Site twenty-four (24) hours per day, seven (7) days a week for emergency purposes consistent with applicable CLIENT/AGENCY limited access policies that are further described in the attached Exhibits. Licensee shall use the provided or authorized access at Licensee's sole risk. Licensee acknowledges the active light rail facilities located on the CLIENT/AGENCY property surrounding the Site, and agrees to use precautions when crossing such rail facilities. Access to the Site by construction workers, material providers and agents of Licensee during construction shall be conducted so as to reasonably minimize interference with the operations of CLIENT/AGENCY, in accordance with applicable CLIENT/AGENCY limited access policies, as further described in the attached Exhibits. Except in the case of an emergency, and notwithstanding any other provision herein, prior to Licensee's access to the Site, Licensee shall notify the CLIENT/AGENCY Plant Operations Dispatch Office. The CLIENT/AGENCY reserves the right to change the contact at anytime it deems necessary, but with reasonable notice to the Licensee. Also, notwithstanding any other provision herein, the CLIENT/AGENCY may enact enforcement and security clearance requirements necessary for the protection of persons or property. Licensee shall, before, during and after construction of the solar array, adhere to all applicable CLIENT/AGENCY safety and security policies and procedures.

- 4.4 Modifications/Alterations. After the completion of construction and the acceptance of the work, Licensee shall obtain CLIENT/AGENCY's written consent, in accordance with Exhibit XXX-2, before implementing any material changes to the design of the System or the replacement, modification, or alteration of the System (collectively "Alterations"). Licensee must obtain CLIENT/AGENCY's written consent to such Alterations before Licensee begins implementing or installing the Alterations. CLIENT/AGENCY may not unreasonably withhold its consent to Licensee's proposed Alterations, but CLIENT/AGENCY may impose reasonable conditions on its grant of consent to any Alterations. Any Alterations performed by Licensee shall be performed in accordance with the Contract Documents, the Construction Criteria, the SPPA, and all Applicable Laws and Requirements, including any and all necessary permits and approvals from authorities other than the CLIENT/AGENCY, copies of which Licensee shall provide to CLIENT/AGENCY. Licensee agrees to provide CLIENT/AGENCY with sufficient advance notice of any proposed Alterations to allow the coordination and approval by CLIENT/AGENCY of the construction schedule for such Alterations. Notwithstanding the foregoing, Licensee's repair or replacement of existing components of the System in connection with Licensee's work that does not reduce the amount of Energy delivered by the System shall not be considered Alterations and shall not be subject to the CLIENT/AGENCY Consent provisions of this Section 4.4.
- 4.5 Site Security. At all times during the construction and operations on the Site, Licensee shall cause to exist, if applicable, reasonable security fencing for any Ground-Mount (GM) solar array Options, if shown in Exhibits D-1 and D-2, and must be consistent with applicable CLIENT/AGENCY policies. Such fencing shall include construction fencing during installation and removal of the System, and permanent fencing around the GM solar array Site during operations. Licensee shall coordinate with LAC Facility or Site manager and

comply with all CLIENT/AGENCY Site security requirements when accessing the Site.

- 4.6 CLIENT/AGENCY Inspection of System. CLIENT/AGENCY shall be permitted non-emergency access to inspect the System upon notice to Licensee. This requirement in no way prohibits CLIENT/AGENCY or any officer or agency of CLIENT/AGENCY from inspecting any and all portions of the Site other than the System itself. In the event of emergency, CLIENT/AGENCY may inspect the System and must notify Licensee within one business day after the commencement of such inspection.

ARTICLE 5 -- OPERATIONS & MAINTENANCE: COMMUNICATIONS NETWORK

- 5.1 Documentation and Training. Licensee shall provide all necessary training to the CLIENT/AGENCY, starting promptly after substantial completion of the project, in order that the CLIENT/AGENCY be prepared for any emergency condition or other aspect that may affect the CLIENT/AGENCY property or safety of persons. Although the System will be owned by Licensee and operated and maintained by Licensee, Licensee shall, at its sole expense, provide to CLIENT/AGENCY two (2) complete and accurate sets of operation, maintenance, and parts manuals for each photovoltaic system specific to each Licensed Area. Licensee also must provide to CLIENT/AGENCY, throughout the term of this SLA, updates to such manuals as is reasonably necessary to keep them current, complete and accurate. Licensee shall provide CLIENT/AGENCY, at its sole expense, a copy of any manuals that describe scheduled maintenance requirements, troubleshooting, and safety precautions specific to the supplied equipment, operations in emergency conditions and any other pertinent information for CLIENT/AGENCY LAC personnel. In addition, without fee for its services, Licensee shall reasonably assist CLIENT/AGENCY in training CLIENT/AGENCY LAC personnel to respond in case of emergencies involving the System, property damage or bodily injury. Licensee shall also provide, at its sole expense, two (2) sets of as-built drawings to CLIENT/AGENCY. CLIENT/AGENCY acknowledges that Licensee's provision of the documents and information detailed in this Section 5.1 in no way authorizes CLIENT/AGENCY or any of its agents to operate, maintain, or in any way interfere with the System without Licensee's prior consent except in an emergency with respect to the System that threatens property damage or bodily injury. In addition, Licensee shall provide to CLIENT/AGENCY any training reasonably required for CLIENT/AGENCY LAC personnel with respect to the monitoring, operation and maintenance of the System, in the event that CLIENT/AGENCY takes title to the System.
- 5.2 Site Communications. CLIENT/AGENCY and Licensee shall cooperate in good faith to provide the site communications specified in Exhibit D-5 hereto and by this reference incorporated herein, and to obtain such permits as are necessary to provide said communications.
- 5.3 Monitoring. Licensee shall provide, at its expense, the monitoring of the System required by Exhibit XXX-5 and as specified in Section 5.4 of the SPPA.
- 5.4 Malfunctions and Emergencies. CLIENT/AGENCY and Licensee shall notify the other within

24 hours following the discovery by it if: (a) any material malfunction in the operation of the System; or (b) an unanticipated interruption in the supply of Energy. Discovery by CLIENT/AGENCY or Licensee means the discovery and actual knowledge of such malfunction or interruption by designated personnel. Licensee and CLIENT/AGENCY shall each designate personnel and establish procedures such that each Party may provide notice of such conditions requiring Licensee's repair or alteration at all times, twenty-four (24) hours a day, seven (7) days a week. Licensee and CLIENT/AGENCY each shall notify the other Party as soon as possible upon the discovery of an emergency condition in the System. Licensee shall give CLIENT/AGENCY commercially reasonable advance written notice of any planned disruption or intervention in the supply of Energy. If an emergency condition exists, Licensee shall promptly dispatch the appropriate personnel upon becoming aware thereof to perform the necessary repairs or corrective action in an expeditious and safe manner. Emergency maintenance personnel representing Licensee shall be on site within twelve (12) hours of the notification to assess the condition and commence corrective actions. For routine and emergency repairs, the Parties shall contact the designated persons as the Parties provided to each other prior to the issuance of the Notice to Proceed, or such other Person as a Party may designate from time to time by written notice to the other Party.

5.5 Metering.

5.5.1 Performance Monitoring. Licensee shall provide monitoring as set forth in Section 5.4 of the SPPA.

5.5.2 CLIENT/AGENCY Audits and Inspections. Once per calendar year, CLIENT/AGENCY shall have the right to audit the previous 12 months of Meter data upon reasonable notice, and any such audit shall be at CLIENT/AGENCY's sole cost, provided, however, that if the audit shows a five percent (5%) or greater overcharge to CLIENT/AGENCY, then Licensee shall bear the out-of-pocket cost to CLIENT/AGENCY of such audit. Any overcharge or undercharge revealed by such audit shall be credited against future payments due from CLIENT/AGENCY pursuant to the SPPA (in the case of an overcharge) or paid by CLIENT/AGENCY to Licensee (in the case of an undercharge). The audit shall take place at the location where the relevant records are kept by Licensee. CLIENT/AGENCY shall have the right of access to all meters at reasonable times but upon reasonable prior notice for the purpose of verifying readings and calibrations. Copies of metering data records shall be kept locally, readily accessible for CLIENT/AGENCY staff.

5.6 Licensee's Obligations.

5.6.1 In General. On and after the Commercial Operation Date, subject to the terms of this SLA and the SPPA, Licensee shall cause the System to be operated and maintained at Licensee's sole expense, including the cost of capital repairs and replacements, in a commercially reasonable manner throughout the term of this SLA and the SPPA. This obligation includes the monitoring and maintenance of the metering equipment that determines the quantity of Energy produced by the System and makes such operating information available to CLIENT/AGENCY on a monthly basis (collectively, the "O&M Work"). Licensee warrants that all of its operating and maintenance personnel and subcontractors will

be adequately qualified and trained throughout the term of this SLA. Licensee shall be responsible for maintenance and repairs to the Site to the extent such maintenance and repairs are necessary as a direct result of Licensee's Permitted Use. As applicable, Licensee shall maintain the security fencing surrounding the Licensed Area in a commercially reasonable manner at Licensee's sole expense. Subject to the terms of this SLA, Licensee shall perform the O&M Work: (i) to ensure that the System are continuously capable of delivering Energy in accordance with the specifications set forth in the SPPA, subject to expected, ordinary degradation of the System and weather fluctuations; (ii) to ensure that all applicable manufacturer, installer and equipment warranties remain in place for their full terms, including but not limited to all roof warranties; and (iii) at the Licensed Area on a schedule approved by CLIENT/AGENCY in a manner that minimizes, to the extent commercially practical, inconvenience to and interference with CLIENT/AGENCY and CLIENT/AGENCY's invitees' use of the Site.

5.6.2 Health and Safety. Licensee shall take all necessary and reasonable safety precautions with respect to performing the Installation Work and the O&M Work, including compliance with all Applicable Laws and Requirements pertaining to the safety of persons and real and personal property. Licensee shall promptly report to CLIENT/AGENCY upon discovery by Licensee of any death, injury, or property damage to CLIENT/AGENCY's property that occurs on or about the Site or as part of the Licensee's operation of the System.

5.6.3 Permits and Approvals. While providing Energy, Licensee shall obtain and maintain all approvals, consents, licenses, permits, and inspections from Governmental Authorities, utilities, utility personnel, and other agreements and consents that are required to be obtained and maintained by Licensee and to enable Licensee to generate Energy. Licensee shall promptly deliver to CLIENT/AGENCY copies of all permits and approvals obtained pursuant to this Section 5.6.3 to CLIENT/AGENCY.

5.6.4 Losses/Damages. CLIENT/AGENCY will not be responsible for losses or damage to Licensee's property or any other personal property, equipment or materials of Licensee at the Site. Licensee will hold CLIENT/AGENCY harmless from any such losses or damages pursuant to Section 6.4 hereof. All losses by Licensee at the Site shall be reported promptly to CLIENT/AGENCY upon discovery by Licensee.

5.6.5 Hazardous Substances.

- (i) Licensee represents, warrants and covenants that it shall not use or place any Hazardous Substances on the Licensed Area or Site, and further represents, warrants and covenants that no Hazardous Substances shall be brought upon the Site or Licensed Area as a result of the construction, maintenance or operation of the System.
- (ii) "Hazardous Substances" means asbestos and asbestos-containing material (regardless of its condition); any chemical, material or substance at any time defined as or included in the definition of "hazardous substances", "hazardous wastes", "hazardous materials", "extremely hazardous waste", "biohazardous waste", "pollutant", "toxic pollutant", "contaminant", "restricted hazardous waste",

“acutely hazardous waste”, “radioactive waste”, “infectious waste”, “toxic substances”, or any other term or expression intended to define, list, or classify substances by reason of properties harmful to health, safety of the indoor or outdoor environment (including harmful properties such as ignitability, corrosivity, reactivity, carcinogenicity, toxicity or words of similar import) under any Applicable Laws and Requirements; any oil, petroleum, petroleum fraction or petroleum derived substance; urea formaldehyde foam insulation; mold; and electrical equipment which contains any oil or dielectric fluid containing polychlorinated biphenyls. Hazardous Substances shall not include the foregoing substances to the extent such substances are used, stored, treated and disposed of in compliance with all Applicable Laws and Requirements, do not require monitoring by Governmental Authorities, and are typically found or used in similar quantities in comparable operations.

- (iii) If Hazardous Substances related to Licensee’s use of the Licensed Area are discovered on the Licensed Area, then Licensee shall, at its sole cost and expense, promptly perform all abatement work and repair or replace all improvements damaged by the abatement work to the satisfaction of the CLIENT/AGENCY.
- (iv) Licensee shall indemnify, defend and hold CLIENT/AGENCY, and their officers, employees, commissions and agents harmless from and against any and all reasonable costs relating to any Hazardous Substances used or placed at the Licensed Area or Site as a result of Licensee’s use of the Licensed Area and Site and any abatement work related thereto. Licensee shall be solely responsible for and shall comply with all Applicable Laws and Requirements with respect to Hazardous Substances used by Licensee on the Licensed Area.

5.7 CLIENT/AGENCY’s Obligations

5.7.1 In General. Subject to any limitations in this SLA or the SPPA, CLIENT/AGENCY shall at all times during the term of this SLA maintain the Site, other than the System, in good condition and repair so as to enable Licensee to operate and maintain the System and so that CLIENT/AGENCY will be able to receive and utilize the Energy delivered to the Site from the System. Likewise, damages occurred to the structure that can be identified as caused by licensee's equipment installation and/or usage practices shall be made good by Licensee. CLIENT/AGENCY shall maintain the Site and ensure that insolation and communication access are not adversely affected by shading, growing weeds or by any facility or structure on property owned or controlled by CLIENT/AGENCY. It is provided, however, that such occasional and temporary interference as may result from LAC operations on the Site(s) shall not be considered a violation of this Section 5.7 unless such occasional and temporary interference materially and adversely affects the generation of Energy to the extent that the System cannot provide at least 90% of the estimated electricity production of the System for a period of thirty (30) consecutive days as determined by the National Renewable Energy Laboratory (NREL) “PV Watts Calculator” for the same time period. The calculator is located on the internet at:

<http://rredc.nrel.gov/solar/calculators/PVWATTS/version1/US>

ARTICLE 6 -- INSURANCE/ INDEMNIFICATION

- 6.1 No CLIENT/AGENCY Obligation to Insure. CLIENT/AGENCY is not responsible for and will not maintain insurance covering the System against any casualty, and Licensee will make no insurance claim of any nature against CLIENT/AGENCY by reason of any damage to the Licensee's property or liability to persons in the event of damage or destruction by any cause.
- 6.2 Licensee's Insurance Obligations. Licensee shall procure and maintain, throughout the term of this SLA, insurance against all claims for injuries to persons or damages to property which may arise from or in connection with Licensee's use of the Site or performance of the Work under this SLA or the results of that Work by Licensee, its agents, representatives, employees or subcontractors, in the forms and amounts as required by the CLIENT/AGENCY General Conditions and those required by the Contract Documents. Without limiting the generality of the foregoing, Licensee shall maintain the following minimum insurance through the entire term of the agreement.
- 6.2.1 Commercial General Liability. Licensee shall obtain, at Licensee's expense, and keep in effect during the term of this SLA, Commercial General Liability Insurance or covering bodily injury and property damage in a form and with coverage in the forms and amounts specified in the CLIENT/AGENCY General Conditions. This insurance shall include personal injury liability, and products and completed operations liability. Coverage may be written in combination with Automobile Liability Insurance (with separate limits) or umbrella coverage. This coverage shall be written on an occurrence basis.
- 6.2.2 Property Insurance. Licensee shall maintain, in the forms and amounts specified in the CLIENT/AGENCY General Condition, during the term of this SLA all risk replacement property insurance sufficient to insure against complete loss or destruction of the System installed on the Site.
- 6.2.3 Automobile Liability. In the forms and amounts specified in the CLIENT/AGENCY General Conditions, Licensee shall obtain, at Licensee's expense, and keep in effect during the term of this SLA, Commercial Business Automobile Liability Insurance covering all owned, non-owned, or hired vehicles. This coverage may be written in combination with the Commercial General Liability Insurance or Self- Insurance (with separate limits) or umbrella coverage.
- 6.2.4 Additional Insured. The liability insurance or self-insurance coverage required for performance of this SLA shall include CLIENT/AGENCY as Additional Insured's or Loss Payees (as applicable) but only with respect to the Licensee's activities to be performed under this SLA. Coverage shall be primary and non-contributory with any other insurance and self-insurance carried by CLIENT/AGENCY.
- 6.2.5 Notice of Cancellation or Change. There shall be no cancellation, material change, potential exhaustion of aggregate limits or non-renewal of insurance or self-insurance coverage(s) without thirty (30) calendar days written notice delivered from the Licensee or its

insurer(s) to CLIENT/AGENCY.

6.2.6 Certificate(s) of Insurance. As evidence of the insurance coverage required by this SLA, the Licensee shall furnish Certificate(s) of Insurance to CLIENT/AGENCY prior to the Licensee's commencement of work under this SLA. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insured's or Loss Payees. Insurance coverage required under this SLA shall be obtained from insurance companies or a self-insurance plan acceptable to CLIENT/AGENCY. The Licensee shall pay for all deductibles, self-insured retention and/or self-insurance, to the extent self-insurance is authorized by the CLIENT/AGENCY, included hereunder.

6.2.7 Subcontractors. Licensee shall include all subcontractors at any tier under Licensee's policies or shall furnish to CLIENT/AGENCY separate certificates and endorsements in the forms and amounts required above, for each subcontractor of Licensee. All coverages for subcontractors shall be subject to all of the requirements stated in this Section 6.2.

6.3 Licensee Indemnification. Licensee shall indemnify, defend and hold harmless CLIENT/AGENCY, and their officers, commissions, employees and agents, from all suits, actions, claims, damages, and judgments of any character arising from Licensee's performance of this SLA that are brought against CLIENT/AGENCY, and any of their officers, trustees, employees and agents or anyone for whom any of which may be liable, by any person on account of any injury or death to any person or any loss or damage to property, due to the acts or omissions by the Licensee or any of its officers, employees, subcontractors, assignees, representatives or anyone for whom Licensee may be liable. Licensee shall give CLIENT/AGENCY prompt notice of any such claims and defend any such action in accordance with Section 13 of the SPPA.

ARTICLE 7 -- VACATING SITE

7.1 Vacating the Site/Removal of Equipment: On the expiration or termination of this SLA, if CLIENT/AGENCY does not purchase the System pursuant to a right to purchase as provided in this SLA or in the SPPA, Licensee shall have an additional one hundred and eighty (180) calendar days to use the Site and the Licensed Area, but solely for the purpose of Removal and Restoration (as defined below). During this period, Licensee shall (i) remove all equipment, System, materials and other property comprising the System (other than equipment and property owned by the CLIENT/AGENCY) from the Site and CLIENT/AGENCY property at Licensee's cost and expense ("Removal"), and (ii) restore the Site, the Licensed Area and all affected electrical lines and meters to their pre- installation condition, and shall leave the Licensed Area and Site in neat and clean order ("Restoration"). However, if CLIENT/AGENCY purchases the System pursuant to the SPPA or Section 7.5 of this SLA, or otherwise takes ownership of the System, then Licensee shall not perform Removal and Restoration. Any such required Removal and Restoration shall be completed by a mutually agreed date, but in no case later than one hundred and eighty (180) calendar days after the expiration or termination of this SLA. Removal and Restoration shall be at Licensee's cost unless this SLA has been terminated due to an CLIENT/AGENCY default, or because CLIENT/AGENCY has terminated this SLA under Section 9.6, in which case

CLIENT/AGENCY shall reimburse Licensee for the actual and necessary costs of Removal and Restoration within 30 calendar days of receipt of an invoice for such costs.

- 7.2 CLIENT/AGENCY Remedies: If Licensee fails to Remove the System and complete the Restoration when required to do so under this SLA, CLIENT/AGENCY may: (i) remove the System and complete the Restoration of the Site at Licensee's cost and expense; (ii) take ownership of the System; and (iii) pursue all other remedies that may be available to CLIENT/AGENCY under this SLA, at law, or in equity. CLIENT/AGENCY may exercise these remedies individually or in any combination. If CLIENT/AGENCY takes any action or combination of actions described in subsections (i), (ii), or (iii) above, all equipment and other property on the Site, including without limitation the System, (the "Abandoned Equipment") shall be deemed abandoned and CLIENT/AGENCY may dispose of the Abandoned Equipment in any manner authorized by law and retain the proceeds of any such disposal, or may retain ownership thereof, as CLIENT/AGENCY may determine in its sole discretion. The proceeds of any sale of the Abandoned Equipment if any, received by the CLIENT/AGENCY shall be applied first against the expenses incurred by CLIENT/AGENCY in taking action under this Section, including but not limited to the expenses of System Removal, Site Restoration, the preservation and valuation of the System and any components, the pursuit of legal remedies, and the disposition of the System or any components, with the balance, if any, retained by CLIENT/AGENCY.
- 7.3 CLIENT/AGENCY Purchase Option. During the term of the SPPA and this SLA, CLIENT/AGENCY's option to purchase the System shall be as described in the SPPA.

ARTICLE 8 – FORCE MAJEURE

- 8.1 Definition of Force Majeure Event. For purposes of this SLA, an act or event is a "Force Majeure Event" if such act or event is beyond the reasonable control, and not the result of the fault or negligence, of the affected Party and such Party has been unable to overcome such act or event with the exercise of due diligence (including the expenditure of commercially reasonable sums). Subject to the foregoing conditions, "Force Majeure Event" shall include the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning, volcanic eruption and earthquakes; (ii) explosions or fires arising from lightning or other causes unrelated to the acts or omissions of the Party seeking to be excused from performance; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, epidemic, terrorist acts, or rebellion; (iv) strikes or labor disputes; (v) action by a Governmental Authority, including a moratorium on any activities related to this SLA; and (vi) the impossibility for one of the Parties, despite its reasonable efforts, to obtain, in a timely manner, any approval by a Governmental Authority necessary to enable the affected Party to fulfill its obligations in accordance with this SLA, provided that the delay or non-obtaining of such approval by a Governmental Authority is not attributable to the Party in question and that such Party has exercised its reasonable efforts to obtain such approval.
- 8.2 Procedure for Claiming Force Majeure. Any Party claiming a Force Majeure Event shall advise the other Party as soon as possible of the occurrence of the Force Majeure Event and

shall provide the other Party with the basis of the claim, in writing, within ten (10) calendar days of the occurrence of the Force Majeure Event.

- 8.3 Consequences of Force Majeure Event. The Parties shall make reasonable efforts to avoid the adverse impacts of a Force Majeure Event and to resolve the event or occurrence once it has occurred in order to resume performance, unless Licensee has no repair and replacement obligations as contemplated under Section 7.1.1 of the SPPA. Subject to the termination rights contained in this Section 8.3, if a Party is prevented from performing its obligations under this SLA by a Force Majeure Event, the period for performance of such obligation will be extended by the number of days of the duration the Force Majeure Event. If a Force Majeure Event shall have occurred that has affected Licensee's or CLIENT/AGENCY's performance of its obligations hereunder and that has continued, or is likely in the reasonable opinion of Licensee and CLIENT/AGENCY to continue, for a period of one hundred twenty (120) consecutive days in a twelve-month period or one hundred eighty (180) days in the aggregate in a twelve-month period, then CLIENT/AGENCY and Licensee shall each be entitled to terminate this Agreement with no liability of either Party, except as provided under Section 7.1 upon thirty (30) calendar days' prior written notice to the other Party.
- 8.4 Change of Law. Notwithstanding any other provision herein, a change of law, including CLIENT/AGENCY's nondiscriminatory exercise of its regulatory authority, shall not constitute a Force Majeure Event.

ARTICLE 9 -- MISCELLANEOUS

- 9.1 Notices. Unless a provision in the SPPA or this SLA specifically provides otherwise, all notices or other communications required or permitted hereunder shall be in writing, and shall be personally delivered (including by means of professional messenger service) or sent by overnight courier, or sent by registered or certified mail, postage prepaid, return receipt requested to the addresses set forth below, or sent by electronic facsimile to the facsimile numbers set forth below. All such notices or other communications shall be deemed received upon the earlier of (i) if personally delivered or sent by overnight courier, the date of delivery to the address of the person to receive such notice, (ii) if mailed as provided above, on the date of receipt or rejection, or (iii) if given by electronic facsimile, when received by the other Party if received between Monday through Friday between 9 a.m. and 5:00 p.m. so long as such day is not a state or federal holiday and otherwise, on the next day, provided, however, that if the next day is a Saturday, Sunday, or a state or federal holiday, such notice shall be effective on the following business day.

TO LICENSEE:

NAME

Attn:

Address: _____

Phone: _____

Fax:

TO CLIENT/AGENCY:

AGENCY NAME

Attn: _____

Address:

Phone: _____

Fax: _____

With a copy to:

Attn: _____

Address:

Phone: _____

Fax: _____

9.2 Communications/Publicity. No later than _____, 2013, Licensee and CLIENT/AGENCY shall mutually agree on, and shall thereafter comply with, a written communications plan governing all publicity related to the System, which at a minimum shall provide that:

9.2.1 Licensee, subject to approval of the CLIENT/AGENCY, which approval shall not be unreasonably withheld, and CLIENT/AGENCY may publish or post factually accurate information regarding the System;

9.2.2 Any tours or guest access to the Licensed Area shall be subject to CLIENT/AGENCY's prior approval, which shall not be unreasonably withheld and may be granted in advance for defined circumstances, as agreed in the communications plan;

9.2.3 CLIENT/AGENCY may take photographs or video of the System and its construction and operation and may use such photographs and video in its sole and reasonable discretion to promote similar solar projects with or by CLIENT/AGENCY. CLIENT/AGENCY may also take photos, video or other non-intrusive evidentiary actions to evaluate the System as well as any impact on the CLIENT/AGENCY facility(ies);

9.2.4 Any records prepared, owned, used or retained by CLIENT/AGENCY are public records which are governed by the Utah Government Records Access and Management Act, Section 63G-2-101, *et. seq.*, Utah Code Ann. ("GRAMA"), as amended and all other applicable State's Public Records Laws. Licensee acknowledges that public records are subject to disclosure on request unless exempt from disclosure under GRAMA. CLIENT/AGENCY will not be liable for the release of any information when required by law or court order to do so, whether pursuant to GRAMA or otherwise.

9.3 Integration; Exhibits. This SLA, together with the SPPA, and all other documents incorporated by reference, constitute the entire agreement and understanding between CLIENT/AGENCY and Licensee with respect to the subject matter hereof and supersedes all prior agreements relating to the subject matter hereof, which are of no further force or effect. All Exhibits and other documents referred to herein are integral parts hereof and are made a part of this SLA by this reference.

9.4 Failure to Perform Obligations.

9.4.1. Except as otherwise expressly provided for herein, the failure of a Party to perform or cause to be performed any material obligation required to be performed by such Party under this SLA or the failure of any material representation or warranty set forth herein to be true and correct as and when made shall be a default and grounds for the other Party to terminate this Agreement;. It is provided, however, that if such failure by its nature can be cured, then the defaulting Party shall have a period of sixty (60) calendar days after receipt of written notice from the other Party of such failure of the defaulting Party, to cure the same and a default shall not be deemed to exist during such period; provided, further, that if the default cannot reasonably be cured within sixty (60) calendar days and the defaulting Party has commenced curing such failure during such period and is diligently and in good faith attempting to effect such cure, said cure period shall be extended for an additional sixty (60) calendar days.

However, the completion, acceptance and normal operation of the System and the Interpretational Kiosk(s) by (INSERT DATE), is critical to, and of the essence of this SLA. Therefore, the cure periods provided in this Section 9.4.1 shall not apply to Licensee's obligation to complete and obtain acceptance of the System, and to achieve normal operation of the System and its Interpretational Kiosk(s) by (INSERT DATE).

9.4.2. The non-defaulting Party may not terminate this SLA until completion of the cure period, as described above.

9.5 Payment Obligations Upon Termination; Termination without liability of either Party. In the event that this SLA is terminated in accordance with Section 8.3 (Force Majeure), no Party shall have any liability to the other Party under this SLA as a result of such termination, and the only amounts due shall be those amounts that accrued in accordance with this SLA prior to the Termination Date, provided, however, that Licensee will be responsible for the Removal of the System and Remediation of the Site in accordance with Section 7.1.

9.6 CLIENT/AGENCY Termination for Official Purpose. CLIENT/AGENCY may terminate this SLA, in whole or in part, subject to sixty (60) calendar days' written notice to Licensee. If CLIENT/AGENCY elects to terminate this SLA pursuant to this Section 9.6: (a) prior to the Commercial Operation Date, CLIENT/AGENCY shall pay or reimburse Licensee only to the extent not paid pursuant to SPPA Section 10.3.1, for all time and material expenses actually incurred by Licensee subsequent to execution of this SLA to the extent permitted by CLIENT/AGENCY's normal procedures for time and materials contracts plus all costs of Removal of System and Restoration of the Licensed Area and Site, but not including full Fair

Market Value of the System, which may be re-deployed with value; or (b) after the Commercial Operation Date, only to the extent such amounts are not paid by CLIENT/AGENCY pursuant to the SPPA, CLIENT/AGENCY shall be required to pay for the Removal of the System and Restoration of the Site, but not including full Fair Market Value of the System, which may be re-deployed with value. In no event shall CLIENT/AGENCY be required to pay any amount under this Section 9.6 for which CLIENT/AGENCY has already paid under the SPPA.

- 9.7 Cumulative Remedies. Except as set forth to the contrary herein or in the SPPA, any right or remedy of either party shall be cumulative and without prejudice to any other right or remedy, whether contained herein or not.
- 9.8 Time is of the Essence. Time is of the essence in each Party's performance of its obligations under this SLA. In particular, but not in lieu of or in derogation of other performance obligations of Licensee, Licensee shall have completed the construction of the System, including the Interpretational Kiosk(s), and shall have achieved its acceptance and commenced its normal operation, on or before (INSERT DATE). Licensee shall send to CLIENT/AGENCY a written Notice of Final Completion.
- 9.9 Limited Effect of Waiver. The failure of either CLIENT/AGENCY or Licensee to enforce any of the provisions of this SLA, or the waiver any provision of this SLA in any instance, shall not be construed as a general waiver or relinquishment on the waiving Party's part of any such provision in any other instance or of any other provision in any instance.
- 9.10 Survival. Any provision of this SLA that, by its nature is intended to survive termination, shall survive termination or expiration of this SLA.
- 9.11 Relation of Parties. The relationship between CLIENT/AGENCY and Licensee shall not be that of partners, agents or joint venturers for one another, and nothing contained in this SLA shall be construed as establishing or constituting a partnership, agency agreement or joint venture between them for any purposes, including federal income tax purposes. Licensee shall be considered an independent contractor and responsible for its own tax liabilities and all other matter indicative of an independent contractor.
- 9.12 Assignment, Successors and Assigns. This SLA and the rights and obligations under this SLA shall be binding upon and shall inure to the benefit of CLIENT/AGENCY and Licensee and their respective permitted successors and assigns. The rights, duties and obligations of Licensee under this SLA shall not be assignable by the Licensee in whole or in part without the written consent of CLIENT/AGENCY and upon such reasonable terms and conditions that CLIENT/AGENCY may require. CLIENT/AGENCY's consent to one assignment shall not constitute, and shall not be construed as constituting, consent to any subsequent assignment.
- 9.12.1 Event of Default. In the event of default by any assignee or successor to Licensee, CLIENT/AGENCY may proceed directly against Licensee without the necessity of exhausting remedies against such assignee or successor.

9.12.2 Unique Expertise. Notwithstanding the foregoing, Licensee acknowledges that CLIENT/AGENCY is relying upon the unique expertise and capability of Licensee. Licensee must demonstrate that any proposed assignee has both the financial capacity and the technical ability to perform the obligations required under this SLA at a level reasonably deemed appropriate by CLIENT/AGENCY.

9.12.3 Definition of Assignment. For purposes of this Section 9.12, the dissolution, liquidation, sale, assignment, transfer or disposition, directly or indirectly, of any type which results in a change of control of Licensee, or a transfer of all or any portion of Licensee's rights under this Agreement to any third party, shall be deemed an assignment of this Agreement. Change of control shall be as defined in common law, and may be the result of a single or of multiple related transactions which result in the cumulative transfer of all or substantially all of the assets of Licensee, or more than fifty percent (50%) of the equity interests of Licensee.

9.12.4 Permitted Transfers. Notwithstanding anything to the contrary in this Section 9.12, Licensee may transfer all or substantially all of its assets to the local, serving electric utility ("Utility"), including without limitation the System, together with the duties and obligations of Licensee under this SLA, without CLIENT/AGENCY's consent but on sixty (60) calendar days prior written notice to CLIENT/AGENCY, provided that Utility assumes this SLA, the SPPA and all of Licensee's rights and obligations thereunder. In the event that Licensee transfers such assets to Utility, CLIENT/AGENCY acknowledges that Utility may include such transferred assets in Utility's rate base.

9.12.5 Collateral Security. Nothing in this Section 9.12 shall prohibit Licensee from assigning or granting a lien on, for purposes of collateral security, Licensee's rights to payments under this Agreement.

9.12.6 Notice. For any assignment or request for consent to assignment, Licensee shall provide sixty (60) calendar days notice to CLIENT/AGENCY regarding its intent to assign this Agreement, which shall include adequate supporting information to verify that the assignee is qualified to assume Licensee's rights and obligations under this Agreement.

9.12.7 Financing. CLIENT/AGENCY will not subordinate its interest in the Site as security for any Licensee loans or financing. However, Licensee may pledge its interest in the Agreement, including any rights to payment and to the System, as security for loans or financing. If Licensee's lenders request additional terms and conditions to those already provided in this Agreement, CLIENT/AGENCY agrees to consider any such requests, but may refuse such requests in its reasonable discretion. CLIENT/AGENCY acknowledges that Licensee may be financing the acquisition and installation of the System with financing accommodations from one or more financial institutions and that Licensee's obligations may be secured by, among other collateral, a pledge or collateral assignment of this Agreement and a first security right in the System. In order to facilitate such necessary financing, and with respect to any such Mortgagee of which Licensee has notified CLIENT/AGENCY in writing, CLIENT/AGENCY agrees to classification of the System as personal property only. CLIENT/AGENCY acknowledges that part of the collateral

securing financial accommodations of Licensee may be the granting of a first priority security interest (“Security Interest”) in the System to a Mortgagee to be perfected by a filing under the Uniform Commercial Code (UCC) and to be documented in a recorded notice on title to the Site. CLIENT/AGENCY agrees to such filings so long as they reflect the Parties’ agreement that any filing to perfect or provide notice of the Security Interest clearly document the Parties’ intent that the System is considered personal property only and is not considered a fixture to the Site. These filings by Licensee or Mortgagee may include a UCC filing of a Financing Statement (FORM UCC-1) which clearly covers the System as personal property only and not as a fixture. Every provision of this paragraph is subject to the requirement that any foreclosing or succeeding entity shall be bound to all the terms of this SLA.

- 9.13 Default Under SPPA. CLIENT/AGENCY shall have the right to terminate this SLA at any time if there is a Provider Default under the SPPA.
- 9.14 Evaluation of the System. CLIENT/AGENCY and Licensee shall reasonably cooperate with one another in the evaluation of the System, this SLA, the SPPA and any related arrangements in order to contribute toward the feasibility of other CLIENT/AGENCY solar projects.
- 9.15 Counterparts. This Agreement may be executed in one or more counterparts, all of which taken together shall constitute one and the same instrument.
- 9.16 Authority.

9.16.1 Licensee Representations. Licensee hereby represents and warrants that:

- (i) It is a limited liability corporation of the state of _____ duly organized, validly existing and in good standing under the laws of the State of _____, is authorized to do business in the State of Utah, and has all requisite power and authority to enter into this SLA, to perform its obligations hereunder, and to consummate the transactions contemplated hereby;
- (ii) The execution and delivery of this SLA and the performance of its obligations have been duly authorized by all necessary corporate action;
- (iii) This SLA is a legal, valid and binding obligation of Licensee, enforceable against Licensee in accordance with its terms, except as such enforcement may be limited by bankruptcy, reorganization, insolvency, or other law affecting creditors’ rights generally and the general principles of equity;
- (iv) To the best knowledge of Licensee, as of the date of execution of this SLA, no approval of a Governmental Authority (other than any approvals that have been previously obtained or disclosed in writing to CLIENT/AGENCY) is required in connection with the due authorization, execution and delivery of this SLA by Licensee or the performance by Licensee of its obligations hereunder or which Licensee has reason to believe that it will be unable to obtain in due course on or before the date required for Licensee to perform such obligations;

(v) As of the date of execution hereof, Licensee (a) has taken all required actions, if any, necessary to comply with the Public Utility Holding Company Act of 2005, as amended, (b) is not intending to dedicate its property to public use, (c) is not a “public utility” (as defined in any Applicable Laws and Requirements) and (d) is not an electric utility subject to rate regulation by any Governmental Authority.

(vi) Neither the execution and delivery of this Agreement by Licensee nor compliance by Licensee with any of the terms and provisions hereof (i) conflicts with, breaches or contravenes the provisions of the articles of formation or operating agreement of Licensee or any contractual obligation of Licensee or (ii) results in a condition or event that constitutes (or that, upon notice or lapse of time or both, would constitute) an event of default under any material contractual obligation of Licensee.

9.16.2 CLIENT/AGENCY Representations. CLIENT/AGENCY hereby represents and warrants that:

(i) It is a public transit district and a political subdivision of the State of Utah, legally and regularly created, established, organized and existing pursuant to Utah law and has all requisite power and authority to enter into this SLA, to perform its obligations hereunder and to consummate the transactions contemplated hereby;

(ii) The execution and delivery of this Agreement and the performance of its obligations hereunder have been duly authorized by all necessary action; and

(iii) This Agreement is a legal, valid and binding obligation of CLIENT/AGENCY, enforceable against CLIENT/AGENCY in accordance with its terms, except as such enforcement may be limited by bankruptcy, reorganization, insolvency, or other law affecting creditors’ rights generally and the general principles of equity.

9.17 Consent. Except as otherwise specifically provided herein to the contrary, in each instance where consent or approval of a Party is required, such consent or approval shall not be unreasonably withheld or delayed.

9.18 SPPA Survival. In the event that the SPPA is terminated according to its terms and this SLA is still in effect, the terms and conditions contained in the SPPA and expressly referenced in this SLA shall survive the termination of the SPPA for use in interpreting and enforcing this SLA.

9.19 Attorney Fees. In the event that either Licensee or CLIENT/AGENCY institutes any action or proceeding against the other relating to the provisions of this SLA or any default hereunder, then the unsuccessful party in such action or proceeding agrees to reimburse the successful party for the reasonable expenses of such action including reasonable attorneys’ fees, incurred therein by the successful party.

IN WITNESS WHEREOF and in confirmation of their consent to the terms and conditions contained in

this Agreement and intending to be legally bound hereby, CLIENT/AGENCY and Licensee have executed this Agreement as of the Effective Date.

NAME

Signature Date

Title: _____

Please type/write name clearly

Federal Identification Number

AGENCY:

Name Date
Title

Reviewed by:

Name Date
Title

name Date
title

Solar Site License Agreement - Exhibits

D-1. Site Location Maps and Descriptions

D-2 Licensed Area

D-3. Description of System and System Appurtenances

D-4. Applicable Procedures for Site and System Specifications

D-5. Site Communications, Metering and Interconnections

D-6. Permits and Initial Approval Procedures

Solar Site License Agreement - Exhibit D-1

Site Location Map and Description

Solar Site License Agreement - Exhibit D-2

Licensed Area

[Will be Updated Upon Completion of Final Engineering]

Jordan River Service Center—Construction Period

Licensed Area during the construction of the System will be as follows:

1. Staging Area, including reasonable ingress/egress access to the staging Area, as shown in the staging map A-2-1 below.
2. All rooftop Area.
3. Utility transformer /meter area north of LAC building.
4. Electrical conduit Area from the roof to the utility area.
5. An area, to be selected, adjacent to the staging Area for waste containers.
6. Other Area as necessary for installation of the system.

Jordan River Service Center —Post-Construction Period

1. All rooftop Area except the following:
 - A ___ foot wide setback area from the edge of any rooftop space.
 - Area already in use by the LAC for HVAC, hatches, vents or other building equipment not related to the System.
2. Area for conduit access between the System and the utility area.
3. A space of approximately ___ feet in the utility area for inverters and metering.
4. Natural ingress/egress Area for operations personnel and maintenance equipment to rooftop Area and the utility area.
5. Area necessary for staging, movement or installation of equipment for major maintenance in the event major maintenance is required on the System. Any disturbance of Area not included in this Exhibit F-2 for major maintenance shall be pre-approved by CLIENT/AGENCY.

Solar Site License Agreement - Exhibit D-3

Description of System

[Subject to Final Engineering]

EXAMPLE

A solar photovoltaic facility of 900 kW to be located at the CLIENT/AGENCY, XXX, Utah consisting of the following:

1. 240 watt SolarWorld solar photovoltaic panels (4,000 panels), comprising the “array”.
2. UniRac Isys Racking system.
3. Solaron 333 kW inverter(s).
4. [XXX] power meter and meter base [TBD pending final engineering].
5. Interconnecting wiring and conduit between array, inverter, meter base and CLIENT/AGENCY site main circuit breaker panel.

CLIENT/AGENCY Owned Equipment consists of the following:

1. System Main Circuit Breaker Panel
2. As necessary, power conduit for Utility Line Extension on CLIENT/AGENCY property

Utility Owned Equipment may consist of the following:

1. XXX V Transformer
2. XXXXX meter
3. Utility/CLIENT/AGENCY Shared Communications Cabinet
4. Router, switch and Uninterrupted Power Supply (UPS) System

Solar Site License Agreement - Exhibit D-4

Applicable Procedures for Site & System Specifications

Reserved

Solar Site License Agreement - Exhibit D-5

Site Communications, Metering and Interconnection

Licensee Responsibilities:

At its sole expense, Licensee shall procure, provide and install all necessary materials and equipment for the Installation Work required in the SLA pertaining to Site Communications, Metering and Interconnection, and maintain the same at the Licensed Area, including the cost of capital repairs and replacements. Subject to the terms of this SLA, Licensee shall perform the Installation Work at the Licensed Area on a schedule approved by CLIENT/AGENCY, and in a manner that minimizes inconvenience to and interference with CLIENT/AGENCY and CLIENT/AGENCY's invitees' use of the Licensed Area, to the extent practical.

AGENCY Responsibilities:

CLIENT/AGENCY will, at its own expense, host the software-based solar electric Performance Monitoring System, as provided by Licensee, and as described in Section 5.5.1 of the SLA. Details of the work and cost involved for hosting the web based monitoring system are required before finalization of the contract.

ARTICLE 1 – SITE COMMUNICATIONS

1.1 Procurement and Installation. Licensee shall be responsible for the procurement, installation, operation and maintenance of all site communication requirements in accordance with the terms of the SLA, including the procurement of data cables, cable connectors and solar electric metering hardware, connecting the site solar arrays to the Licensee monitoring station, and the procurement, operation and maintenance of the monitoring software as further described in this Exhibit F-5, Article 2. Licensee and CLIENT/AGENCY shall cooperate to ensure that proper communication is established and maintained between parties regarding the solar electric performance, primarily through emailed messages sent via the monitoring software, throughout the term of the SLA.

ARTICLE 2 -- METERING

2.1 Procurement and Installation. Licensee shall be responsible for the procurement, installation, operation and maintenance of all solar electric metering equipment and monitoring software, as required in the SLA. This includes the Communications Gateway hardware that Licensee determines necessary for the chosen Solar Options, the Administrator's Monitoring Software described in Section 5.5.1 of the SLA, and CLIENT/AGENCY's web based Solar Performance Monitoring System as further described in Section 5.5.1 of the SLA.

ARTICLE 3 -- INTERCONNECTION

3.1 Installation. Subject to Section 4.2.4 of the SLA, Licensee must cause the System to be designed, engineered, installed and constructed substantially in accordance with the terms of this SLA, in compliance with CLIENT/AGENCY referenced technical requirements, and all applicable federal, state and local solar electric System requirements.

3.2 Site Communications. CLIENT/AGENCY and Licensee shall cooperate in good faith to provide the site communications specified in this Exhibit and in Section 5.4 of the SPPA, and as applicable, to obtain necessary permits to provide said communications.

3.3 Monitoring. Licensee shall provide, at its expense, on-going 24 hours per day, 7 days per week performance monitoring of the Solar Electric System, as specified in this Exhibit, Articles 1 & 2, and Section 5.5 of the SLA.

(a) Licensee must ensure that the System comply with all applicable rules for interconnected distributed generation System and with applicable State and local codes. Licensee must further ensure that the System interconnection with the Local Electric Utility grid complies with the interconnection protocols of the Local Electric Utility. Licensee shall be responsible to have current licenses and all permits to do the work indicated before a Notice to Proceed is issued. Licensee shall be responsible for any taxes or fees involved in constructing, owning, operating and maintaining the System.

Solar Site License Agreement- Exhibit D-6

Electronic copies of all documents will be made available to all parties.

Permits and Initial Approval Procedures

Reserved

Example elements to be included:

Action

System Plans and Specifications: Submit two (2) copies of proposed and any revised site and System plans and specifications.

Project Schedule

Utility Permit(s): Secure Application(s) and Permit(s) – including both the System permit and the permit for extension of Utility’s customer service to the interchange

Administrative Rules: Submit letter acknowledging receipt and review of and pertinent Utah Administrative Rules

Permits and Licenses: Submit a list of all relevant permits and licenses that need to be obtained for this project. Submit letter certifying that all permits and licenses required to be obtained under applicable laws and requirements in connection with the construction and operation of the System have been obtained and are in full force and effect, and enclose copies of the permits and licenses.

Certificates of Insurance: Submit certificates of insurance evidencing coverages as required.

Financial Assurance: Submit original and copy of a performance bond or other financial assurance in an amount necessary to restore the site to its pre-installation condition in the event Licensee fails to complete the installation and is responsible for site restoration as specified in the agreements. CLIENT/AGENCY must review and approve both the amount and the form of the bond.

Further Assurances: Submit original and copy of Utility’s further assurances letter.

Precedent Conditions: Submit a letter stating by precedent condition whether that condition has been fulfilled or waived.

Notice to Proceed: Issued by Project Manager

Billing and Reconciliation Procedures: Submit proposed billing, including monthly and annual reconciliation, procedures.

Electrical Breaker Panel: Obtain written permission to connect the System power to the CLIENT/AGENCY electrical breaker panel.

Notice of Acceptance Testing: Notify CLIENT/AGENCY not less than three (3) days prior to the anticipated date of System Acceptance Testing.

Completion Notice: Following acceptance testing, submit a letter to CLIENT/AGENCY certifying that the System is capable of generating Energy for commercial use by CLIENT/AGENCY, as designed, and the System has been approved for interconnected operation by the local electric utility.

Emergency Contacts and Procedures: Submit written emergency contact information and procedures and provide licensed site access keys (prior to commercial operation).

Commercial Operation: Submit letter certifying that System has been placed in service and forwarding any punch list of work that may remain.

Emergency Training: Provide training to CLIENT/AGENCY's personnel to respond in case of emergencies (within 60 days of Commercial Operation).

Final Completion: Submit letter certifying Final Completion of the System, including completion of all punch list work (within 60 days of Commercial Operation).

As-Built Drawings, Manuals and Warranties: Submit two (2) sets of the as- built construction drawings, installation work manuals, operation, maintenance, and parts manuals, and equipment and System warranties within 60 days of completion, including completion of any revision. This includes copies of any manuals specifically describing scheduled maintenance requirements, troubleshooting, and safety precautions.