

City of Hailey WWTP Photovoltaic Project Manual

Public Works Department – June 23, 2110 WWTP (Wastewater Treatment Plant)

Tom Hellen, P.E. City Engineer

1.01 - BID INSTRUCTIONS

- A. Any request for bid document interpretations shall be in writing, addressed to Tom Hellen, preferably by email; tom.hellen@haileycityhall.org or at 115 Main St S, Hailey ID. 83333 and shall be received at least five (5) days prior to the date fixed for the opening of proposals. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the RFP, which, if issued, will be posted for all prospective vendors online at the city website: <http://www.haileycityhall.org/publicWorks/engineering/EECBGWWTP.asp#top> not later than two (2) days prior to the date fixed for the opening of proposals. (If a hard copy is required, the bidder may request such correspondence to be mailed or printed out at City Hall. This request must be made at the mandatory job walk in writing at the respective address furnished for such purpose). Failure of any vendor to receive any such addendum or interpretation shall not relieve any vendor from any obligation under his/her/its proposal submitted. All addenda so issued shall become part of the contract documents.
- B. **A mandatory pre-bid onsite job walk** will be conducted on **Thursday, July 1, 2010, 2 p.m.** at the City Wastewater Treatment Plant, 4297 Glenbrook Dr. Hailey, ID. Representatives of the City of Hailey ('City') will be present to discuss the Project. Bidders are required to attend and participate in the conference. The City will transmit to all prospective Bidders of record such Addenda as City considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.
- C. In preparing your bid you are advised to refer to the **Bid Evaluation Criteria** listed herein.
- D. Where purchase is contemplated herein, the amount of items to be purchased as indicated in the RFP is not guaranteed. The City reserves the right to delete any items it deems unsuitable or unnecessary. Contract payments cannot be processed until the contract items have been delivered and installed in a satisfactory condition.
- E. Payment will be based on an invoice used in the supplier's normal course of business. However, such invoice must contain sufficient information, including, but not limited to, description of material, quantity, unit price per unit, extended price and invoice total. In the event the successful vendor fails to respond within the time allowed, the City reserves the right to purchase these services elsewhere, and any excess cost to the City will be absorbed by such delinquent successful vendor.

2.01 - TECHNICAL SPECIFICATIONS FOR PHOTOVOLTAIC SYSTEM

- A. The system to be installed requires a non-penetrating solar PV system weighing less than five (5) pounds per square foot and yielding over 125,000 kWh/ac of production in Year 1. The system shall produce 24.2 kW, in a maximum area of 4,000 sf, within the roof area shown on the attached drawings S-1. The standing seam roof is to remain as-is. All equipment to be installed will be made in the U.S.A.

and all labor will be prevailing wage. In addition, all equipment supplied shall have at least a twenty year warranty.

- B. The Scope of work is to include electrical permitting, inspection, design, complete photovoltaic system hardware, installation and intertie to existing plant electrical systems, including but not limited to; all wiring, conduit and cabling and support thereof, system controls, inverters, P.V. source disconnect, inverter output/Utility disconnect, overload protection, output monitor, racks or cabinets as needed and final system commissioning. The System is to include a display of system output in the water treatment plant. Providing sufficient information to provide a Structural review (at City's expense) of panel & mounting hardware for snow, wind, roof point and distributed loads is a requirement.
- C. Construction is scheduled for PV system completion by Nov. 8, 2010.
- D. Vendor is required to coordinate and supply "net metering" hardware in accord with Idaho Power's Schedule 84 requirements, see references below.
- E. The Vendor is required to furnish labor, materials and reporting in accord with the American Recovery and Reinvestment Act, 3/15/2010, Attachment B. See material forms on page 13-14 of Attachment B. as posted on Project website:
<http://www.haileycityhall.org/publicWorks/engineering/EECBGWWTP.asp#top>
- F. The Davis-Bacon Act applies including wage rates and reporting requirements (certified payrolls and monthly apprenticeship reports). Journeyman and apprentices must have State and Federal registration. More information on Davis-Bacon wage rates is available at <http://www.wdol.gov> (select DBA WD/Idaho/Blaine/Buildings). The most current local information can be verified with the Idaho State Director for U.S. Dept of Labor; Bill Kober at (208)-321-2923. The Vendor is responsible for compliance with all requirements. A public works license is required. Vendors that are barred from performing on Federal projects shall not bid.

2.02 – REFERENCES

- A. S-1, Hailey WWTP Roof Plan (Schematic), and any bid addendums posted on project website:
<http://www.haileycityhall.org/publicWorks/engineering/EECBGWWTP.asp#top>
- B. Idaho Power Schedule 84 (<http://www.idahopower.com/pdfs/BusinessToBusiness/tariffPdf84.pdf>)
- C. American recovery and Reinvestment Act, 3/15/2010, Attachment B, from OER Standard Federal Provisions posted on project website:
<http://www.haileycityhall.org/publicWorks/engineering/EECBGWWTP.asp#top>
- D. Davis-Bacon Act Requirements, refer also to; <http://www.wdol.gov>
- E. *Objectives and Task Analysis for the Solar Photovoltaic System Installer*, North American Board of Certified Energy Practitioners®: <http://www.nabcep.org>
- F. American Solar Energy Society.
- G. Factory Mutual: Fire Protection Tests for Solar Component Products.
- H. Institute of Electrical and Electronics Engineers, Inc. (IEEE):
 - 1. 519, Recommended Practice and Requirements for Harmonic Control in Electrical Power Systems.
 - 2. 929-2000, Photovoltaic Interconnection Standard.
 - 3. 1262, Recommended Practice for Qualification of Photovoltaic (PV) Modules.
 - 4. 1374, Guide for Terrestrial Photovoltaic Power System Safety.
- I. International Electro technical Commission (IEC):
 - 1. 904-2, Requirements for Reference Solar Cells.
 - 2. 904-6, Requirements for Reference Solar Modules.
 - 3. 904-7, Computation of Spectral Measurement of a PV Device.

4. 904-8, Guidance for Spectral Measurement of a PV Device.
 5. 1173, Overvoltage Protection for Photovoltaic Power Generating Systems.
 6. 1194, Characteristic Parameters of Stand-Alone PV Systems.
 7. 1277, Guide-General Description of PV Power Generating System.
 8. 1646, Thin-film Terrestrial Photovoltaic (PV) Module.
 9. 61215, Crystalline Silicon Terrestrial Photovoltaic (PV) Modules - Design
- J. Qualification and Type Approval.
- K. National Electrical Code (NEC): 690, Solar Photovoltaic Systems.
- L. Underwriters Laboratories, Inc. (UL):
1. 1703, Flat-Plate PV Modules and Panels.
 2. 1741, Standard for Static Inverters and Charge Controllers for Use in Photovoltaic Power Systems.
- J. U.S. Department of Energy's Energy Efficiency and Renewal Energy Network.

2.03 – BID SUBMITTALS: Provide The Following Information As Complete As Possible:

- A. Submit pricing for your complete proposed system. Separately list any system alternates and system components under a separate line item or unit pricing. The Vendor may propose more than one type of panel and mounting option. As an option include separate line item pricing for any web-based monitoring, software and programs available allowing owner to monitor the system.
- B. Vendor Experience and Qualifications: Include project descriptions and owner contact information for five similar P.V. projects (largest) performed in the last five years by the Vendor. Mention the term of maintenance agreed upon and whether project continues to be maintained by the Vendor. List intertie experience with similar size switchgear, generators and 'net metering' equipment.
- C. Install Team Experience and Qualifications: If applicable, provide the name of the NABCEP certified employees including certificate number, incept date and length of term with Vendor's company. Define the role of NABSEP personnel on the project. Name the on-site install foreman, master electrician/journeyman or key installation personnel. Supply any qualifications information if desired (experience, term with Vendor, resume, etc.). Define any subcontracted labor or services that are to be used on the project. Define commissioning procedures, verification and on-site quality control.
- D. System Design, Application, Compatibility:
1. Submit a preliminary roof panel array layout showing areas where P.V. panels are to be placed. Determine location of major electrical components. Indicate the placement of electrical equipment.
 2. Submit specification and description of mounting method and/or attachment to roof. Provide a written description and drawings describing the roof mounting hardware, location and number of roof penetrations required (preferably none), panel and footing point and distributed loads. Define any modifications to be made to the structure and building to accommodate the installation.
 3. Bid Submittals, Drawings (sketches) and Specifications:
 - a. Commissioning and start-up plan for PV System.
 - b. P.V. panel roof plan with dimensioned layout, subarray grouping and/or racking arrangement.
 - c. Details of PV Module mounting intertie with existing roof. Include details of hardware rack, feet, clamps and interaction with roof (standing seams, valley or standoffs).

- d. Manufacturer's Certificate of Proper Installation (or testimony) for this given application (snow climate, flat roof, standing seam attachment, etc.), if desired provide Vendors/Supplier's design contact name and number.
- e. List PV Rack roof loading, point loads at attachments and resultant loads at 90 mph wind conditions.
- f. One-line diagram indicating: P.V. panels – size of subarrays, Combiner boxes, Disconnects, Overload Devices, Inverter, output display device, Lightning Arrestors, grounding and intertie with existing switchgear.
- g. Provide (as complete as possible for the proposal) Location of PV Combiner Boxes, Inverter, Disconnects, Racks, Buckets or Panels. Indicate cable runs, cable type and gauge with listed design amperage load, cable rated maximum and losses at max. design amps.
- h. Define Utility Metering Gear in compliance with Idaho Power 'Schedule 84'.
- i. Provide a project timeline, stating all major milestones in project.
- j. Note in your bid any non-compliance or exception with this Project Manual and related documents; including related materials, services, installation, performance, warranty or guarantee.
- k. Submit the Bidders Checklist as attached.

E. Performance Projections and Documentation: Vendor shall provide the following information:

- 1. Exhibit the system's expected performance estimates and supporting data. Input and results from different modeling programs (performance models) is encouraged to be presented and will assist the City's staff in their evaluation. Both vendor and non-proprietary (independent) modeling software programs are encouraged to be presented. In addition a 'PVWATTS Version 1' run is highly encouraged to form a Vendor-to-Vendor baseline comparative model- show your input data, run Version 2 as well possible
- 2. Indicate key input modeling assumptions, derating factors and other input parameters (e.g. weather data, altitude, efficiencies, fouling, etc), list the evaluation program or procedure and preferably list the contact information for the designer or vendor performing this task. Note, the actual performance of a similar installed system (of which the system owner or electricity off taker has attested to) may be noted.
- 3. Show any design calculations for sizing the system
- 4. Submit manufacturer's performance literature for each major component. Include inverter and panel efficiency curves. Include both published data and any specific data prepared for this project and any Certified Factory Test Reports.

F. Warranty and Guarantees:

- 1. Along with the vendor's proposal, vendor shall define the warranty terms and conditions for the overall system installation and operation (beyond component warranties).
- 2. Provide information stating who would be servicing agent(s) which should include company name, location and contact person references.
- 3. List warranties on all major equipment (panels, inverters at minimum) with any applicable exclusions to the Project Manual List any optional warranty extensions and the cost associated as a separate line item optional cost.
- 4. If desired, submit a separate proposal for proposed maintenance services contract for the project on a seasonal or annual cost basis. Include any optional services such as monitoring, testing, technical support, training, etc. This separate proposed contract must contain contractual terms, cost and coverage. The contract shall be subject to review and modification by the City's attorney and will be awarded separately upon acceptance and approval by the City Council.

2.04 - QUALITY ASSURANCE

A. UL Compliance:

1. Materials manufactured within the scope of Underwriters Laboratories shall conform to UL Standards and have an applied UL listing mark.
2. If no UL compliance available, provide the Work in accordance with NFPA 70, National Electrical Code (NEC). Where required, material and equipment shall be labeled or listed by a nationally recognized testing laboratory or other organization acceptable to in order to provide a basis for approval under the NEC.

2.05 - WARRANTY AND GUARANTEE

- A. Provide manufacturer's extended guarantee or warranty, with Owner named as beneficiary, in writing, as special guarantee. Special guarantee shall provide correction, or at the option of the Owner, removal and replacement of work specified in this Specification section found defective during a period of 2 years after the date of Substantial Completion. Correction, removal and replacement of defective work shall be completed within 21 days of discovery unless hampered by weather or site conditions. PV modules shall have a minimum 20-year manufacturer's warranty, and the inverter shall have a 20-year factory warranty.

3.01 - GENERAL SYSTEM OVERVIEW

- A. The owner proposes to install a photovoltaic system on the south facing roof of the water treatment plant processing building. The 24.2 kW average peak output is after site (de)rating factors such as; orientation, surrounding surface reflectivity, altitude, etc. but excludes weather. The PV system installed is to generate a minimum average of 32,300 kWh of production in Year 1 given historical weather conditions. Nameplate kW value of the P.V. panels may need to be higher to meet these requirements. This performance output is considered to be the baseline for the solar PV system. In addition to this specification, the PV array location and electrical layout is shown in the drawings. Further site information may be obtained at the mandatory on-site job walk.

3.02 - GENERAL SCOPE OF PV INSTALLATION WORK

- A. The installer should be familiar with and follow procedures outlined within NABSEP installer guidelines. Refer to Objectives and Task Analysis for the Solar Photovoltaic System Installer, North American Board of Certified Energy Practitioners: <http://www.nabcep.org>
- B. The PV installer will be responsible for providing all the necessary equipment and will execute the electrical and mechanical tasks associated with the installation of a turn-key system. The PV installer will be responsible for starting up the entire PV system under the supervision of an owner designated representative and for obtaining all relevant federal, state and local permits if required. The PV installer will be responsible for complying with National Electric Code Article 690 Solar Photovoltaic Systems.
- C. Provide Shop Drawings and City approval before commencing work detailing:
1. Final configuration and system design for all components as listed above in part '2.02 Bid Submittals, D. System Design, Application, Compatibility'.
- D. The mechanical services shall include, but not be limited to, the following:
1. Mechanical Equipment and Installation
 - a. Furnish and install all mounting equipment for deploying modules on the roof. The system shall be non-penetrating, and shall attach to the standing seems in the roof. PV installer to coordinate with the Owner ensuring the system in placed on the roof is in accordance with the limitations represented in the proposal.

- b. Provide all penetrations through building structure including escutcheons, jacks, waterproofed wall and roof penetrations. Cut, patch and paint to match existing structure.
 - c. Raise all necessary materials to be mounted on the roof without overloading roof. All roof damages incurred by the Vendor during construction shall be repaired immediately, to Owner's satisfaction (or that of an Independent Roofing Expert) at Vendor's cost.
 - d. Inspect and survey the structural materials and solar modules for manufacturing flaws and defects before installing.
 - e. Inspect and survey the structure
 - f. Clean the work area at the job site upon completion
2. The electrical services shall include but not be limited to the following:
- a. Electrical Equipment Installation and Wiring.
 - b. Furnish and install transition boxes at the end of each source circuit to transition from exterior wire on modules to conduit.
 - c. Furnish and install source circuit combiner boxes as necessary.
 - d. Furnish and install all equipment and system grounding cables such that:
 - 1) All non-current-carrying exposed metal parts of source circuit boxes, junction boxes, and power conditioning equipment in the entire PV system are grounded.
 - 2) The system grounding conductor for the DC portion of the PV system is connected to the PV-output circuits at a single point.
 - 3) The system grounding conductor and the equipment- grounding conductor are tied to the same grounding electrode.
 - e. *Quick-test the output of each panel before installing to identify defective or under-performing panels.* Field wire the solar array, transition boxes, (solar modules shall be equipped with DC polarized connectors. The PV installer must furnish and install wire from each source circuit to transition boxes and throughout)
 - f. Mount and install power-conditioning equipment which includes DC and AC switches, solar combiner box, transformer and inverter.
 - g. Field wire all power conditioning equipment. Note that conduit is provided between the building exterior and inverter location, as shown on the plans
 - h. Furnish and install lightning arrestors on AC and DC disconnects
 - i. Install EMT conduit from the combiner boxes of each solar array to the conduit termination location shown on the attached plans
 - j. Furnish and install conduit and wiring for connecting the components of the power conditioning equipment to the main service panel.
3. Required PV Installer Experience:
- a. The PV Installer is required to have previous experience supplying and installing utility-grade, grid-connected solar electric systems similar in size.
 - b. The PV installer must have a Idaho Electrical License.
 - c. The PV installer must have an Idaho Public works License.

3.03 INSTALLATION

- A. In accordance with manufacturer's instructions and recommendations.
- B. In accordance with structural engineer's final requirements for roof installation after review.
- C. Solar installer shall be responsible for all installation work associated with the PV system.

4.01 FIELD QUALITY CONTROL

- A. Testing shall be in accordance with applicable industry standards, requirements, and procedures.
- B. Inspections to be performed by:

1. Idaho Power as per their requirements.
 2. Plant Operations Personnel and Owner's representative.
 2. Local underwriting Inspection
- C. Commissioning, Start-up and System Testing (by PV Installer and City's Representative):
1. Start-up and test the operation of the PV system subsequent to approval of the Commissioning Plan.
 2. An acceptable commissioning plan includes a written procedure with field reporting with these required elements:
 - a. Quick-test and verification of each panel output performance onsite before installation including identifying each panel and its output power under measurable (metered solar insolation/intensity) conditions. Record date, time, solar data and compare with rated panel performance. Involve independent supervision.
 - b. Final testing of completed sub-array and total array configurations and their combined output power under measurable (metered solar insolation/intensity) conditions. Record date, time, solar data and compare with rated panel performance. Involve independent supervision.
 - c. Tests of major components under different load conditions and operating scenarios (define in plan).
 - d. Compare long-term system production against performance models to check longer term system operation (define procedure in plan).
 - e. Define additional quality control inspections, tests or record keeping to optimize system reliability and performance.
 - f. Include onsite supervision of City's project representative during the system commissioning (partial or spot test), provide written reportage of commissioning.
 - g. Provide training to City employees subsequent to acceptance of O&M manual and training description.

5.01 OPERATION AND MAINTENANCE DOCUMENTATION

- A. Submit Operation and Maintenance (O&M) Data specifically applicable to this contract and a complete and concise depiction of the provided equipment, product, or system, stressing and enhancing the importance of system interactions, troubleshooting, and long-term preventative maintenance and operation. The vendor shall compile and prepare data and deliver to the Owner prior to the training of City personnel. The vendor shall compile and prepare aggregate O&M data including clarifying and updating the original sequences of operation to as-built conditions. Vendor shall organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal.
1. Package Quality: Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.
 2. Submit specifications on major electrical components and inverters (efficiency) with Certified Factory Test Reports.
 3. Include manufacturer's installation instructions for each required components. Include both published data and any specific data prepared for this project.
 4. Changes to Submittals: Manufacturer-originated changes or revisions to submitted data shall be furnished by the vendor if a component of an item is so affected subsequent to acceptance of the O&M Data. Changes, additions, or revisions required by the Owner for final acceptance of submitted data shall be submitted within 14 calendar days of the notification of this change requirement.
 5. Types of Information Required In O&M Data Packages:
 - a. Operating Instructions :

- b. Include specific instructions, procedures, and illustrations for the following phases of operation for the installed model and features of each system:
 - c. Safety Precautions
 - d. List personnel hazards and equipment or product safety precautions for all operating conditions.
 - e. Operator Pre-start: Include procedures required to install, set up, and prepare each system for use.
 - f. Startup, Shutdown, and Post-Shutdown Procedures: Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.
 - g. Normal Operations: Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.
 - h. Emergency Operations: Include Emergency Procedures for equipment malfunctions to shut down the equipment to prevent further damage to systems and equipment.
- B. Include Design Calculations for sizing the complete systems, system performance modeling including assumptions made, derating factors and other input parameters.
 - C. Operator Service Requirements: Include instructions for services to be performed by the operator such as adjustment, inspection, and recording meter readings.
 - D. Environmental Conditions: Include a list of Environmental Conditions (solar insolation, weather, temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.
 - E. Preventive Maintenance
 - 1. Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair for the installed model and features of each system. Include potential environmental impacts of recommended maintenance procedures and materials.
 - 2. Preventive Maintenance Plan and Schedule: Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.
 - 3. Cleaning Recommendations: Provide environmentally preferable cleaning recommendations as appropriate.
 - 4. Corrective Maintenance (Repair): Include manufacturer's recommended procedures and instructions for correcting problems and making repairs for the installed model and features of each system.
 - F. Troubleshooting Guides and Diagnostic Techniques: Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or requires replacement.
 - G. Wiring Diagrams and Control Diagrams: Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and the terminals for each type, identically to actual installation configuration and numbering.
 - H. Spare Parts and Supply Lists: Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.
 - I. Warranty Information

1. Submit warranties on all equipment, components and installation along with any applicable exclusions. Include any available options for extending warranty on system and components and associated costs for extension as a separate line item price.
 2. List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers or contract documents in order to keep warranties in force. Include warranty information for primary components.
- J. Testing and Performance Data: Include completed pre-functional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms.
- K. Manufacturer Information: For each item installed, provide the name address and telephone number of the manufacturer's representative and service organization that can provide replacements most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

6.01 - BID EVALUATION CRITERIA

The evaluation of bids will be based upon the following guidelines. Final score will help determine the successful bidder. The scoring criteria for each item is listed in general, but not strictly limited to these terms. Refer to **2.03 – BID SUBMITTALS** for the following scoring categories.

(Refer to part 2.03 above for proposal submittal content to be evaluated)

- A. **100 points** maximum score, Refer to 2.03 A: “Submit pricing for your complete proposed system” and options. Scoring based on; comparable overall value of proposed price, price per watt installed (net adjusted) and cost vs. annual production (caveat: quality of performance analysis and possible derating may be factored in). Comparison of equipment quality and performance under variable conditions.
- B. **50 points** maximum score: Vendor qualifications & experience.
- C. **50 points** maximum score: Onsite install team qualifications & experience, and stated commissioning plan procedures.
- D. **50 points** maximum score: Design solution, compatibility with existing conditions, diligence of design, impact to building roof and structure, coherency and application of proposed design. Suitability of system to this particular application. Strength of commissioning procedure. Quality of system design documentation; bid submittals, drawings (sketches) and specifications.
- E. **25 points** maximum score: Overall projected system performance. Quality of the analysis procedures; modeling methods, input variable descriptions, whether independent analysis (PVWATTS and others and/or proprietary models (note bias). This may also relate to ‘net’ performance in item A. Component performance and conversion efficiencies under normal and variable conditions.
- F. **25 points** maximum score, Warranty value, servicing abilities and desirable warranty options.

300 point maximum score

6.04 - BIDDER'S CHECK LIST

The Bidder's Check List is offered to assist the prospective bidder in checking his/her Bid. This checklist does not relieve the Bidder from properly completing his/her Bid.

Initial when completed *and submit with the bid package.*

1. ___ Are all blank spaces filled out on Bid Form?
2. ___ Have questions arising from the bidding, contract, specifications or plans been submitted to the proper authority and resolved in the proper manner?
3. ___ Are Bid amounts shown correctly as well as extensions and totals? Recheck for errors or omissions. Both lump sum and unit prices must be shown in words and figures.
4. ___ Are authorized signatures properly affixed to the Bid form, giving also title, Idaho Public Works Contractor license number, evidence of authority to sign, etc.?
5. ___ Have all plumbing, heating, air conditioning and electrical subcontractors to whom work will be awarded been listed, as well as their Idaho Public Works Contractor license numbers?
6. ___ Have all other subcontractors, suppliers, individuals or entities as required in the Instructions to Bidders been listed, and in the case of subcontractors, their Idaho Public Works Contractor license number?
7. ___ Have all Addenda been received and acknowledged with the proper signature on the Bid Form?
8. ___ In order for a Bid to be considered, the Bid form, Bid Security, naming of subcontractors form, and other required attachments must be placed in a properly addressed sealed envelope and delivered to the specified authority prior to the time designated for the bid opening.
9. ___ Has Bid Security been enclosed?
10. ___ Has Bidder performed examinations in accordance with the Bid Instructions?
11. ___ Has Bidder included additional information as required in Part 2.03 – Bid Submittals and reviewed the related Bid evaluation criteria 6.01?
12. ___ Note in your bid any non-compliance or exception with this Project Manual and related documents; including related materials, services, installation, performance, warranty or guarantee.
13. ___ Has bidder acknowledged Buy America, Davis-Bacon and disbarment requirements?

7.01 - ADVERTISEMENT FOR BIDS (Advertised: **June 23 and June 30, 2010**).

PROJECT TITLE: **City of Hailey WWTP Photovoltaic Project**

Separate sealed BIDS for **the furnishing and installation of a roof mounted 24 kW photovoltaic solar power system and intertie to the WWTP electrical system** located at The City of Hailey Wastewater Treatment Plant, 4297 Glenbrook Dr and other related work as set forth in the contract documents for **City of Hailey WWTP Photovoltaic Project** will be received by **the City of Hailey** ("City") at **115 Main St S, Hailey ID**, until **2:00 p.m.** local time on **July 19, 2010**, and then at said office publicly opened and read aloud. **A mandatory onsite job walk** will be conducted on **Thursday, July 1, 2010, 2 p.m.** at the City Wastewater Treatment Plant, 4297 Glenbrook Dr. Hailey, ID.

The work involves **the furnishing and installation of a roof mounted 24 kW solar photovoltaic system and intertie to the WWTP electrical system.** It is the intent of these documents to describe the work required to complete this project in sufficient detail to secure comparable bids. All parts or work not specifically mentioned which are necessary in order to provide a complete installation shall be included in the bid and shall conform to all Local, State and Federal requirements.

The Bid Package, including but not limited to the Project Manual, Drawings and Exhibits, may be examined online at the City/Public Works/Wastewater/announcements website, posted on **Thursday, June 23, 2010** at:

<http://www.haileycityhall.org/publicWorks/wastewater/index.asp>

Hard copies of these documents may be purchased for a non-refundable fee of \$26.50 (\$25.00 plus \$1.50 tax) at City Hall.

A current Public Works Contracting License is required at the time of the bid.

This request for proposal ("RFP") includes a request for services requiring special technical skill, training or expertise. Award will be made to a qualified bidder submitting the lowest responsive bid as determined to be in the best interest of the City based on qualifications and price. The City will consider all acceptable bids on a basis consistent with the bid package and its stated evaluation criteria. Only qualified vendors who have adequate experience, finances, equipment and personnel will be considered in making awards.

Before a contract will be awarded for work contemplated herein, the Owner will conduct such investigation as is necessary to determine the performance record, qualifications and ability of the bidder to perform the size and type of work specified under this Contract. Upon request, the bidder shall submit such information as deemed necessary by the Owner to evaluate the bidder's qualifications.

All bids must be signed and accompanied by evidence of authority to sign.

Bids must be accompanied by Bid Security in the form of a bid bond, certified check, cashiers check or cash in the amount of **5%** of the amount of the bid proposal in accordance with Idaho law. Bid security of Bidders whom the City believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening. Said bid security shall be forfeited to the **City** as liquidated damages should the successful bidder fail to enter into contract in accordance with their proposal as specified in the Instructions to Bidders.

The City of Hailey reserves the right to reject any or all proposals, waive any nonmaterial irregularities in the bids received, and to accept the proposal deemed most advantageous to the best interest of the **City**.

Date

Thomas Hellen, City Engineer

Dates Advertised: **June 23 and June 30, 2010.**>

8.01 - PAYMENT BOND – BID SECURITY

“Bids must be accompanied by Bid Security in the form of a bid bond, certified check, cashiers check or cash in the amount of **5%** of the amount of the bid proposal in accordance with Idaho law. Bid security of Bidders whom the City believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening. Said bid security shall be forfeited to the **City** as liquidated damages should the successful bidder fail to enter into contract in accordance with their proposal as specified in the Instructions to Bidders”.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**City of Hailey
115 Main St S, Hailey ID**

CONTRACT

Date:

Amount:

Description (Name and Location):

**City of Hailey WWTP Photovoltaic Project
4297 Glenbrook Dr**

BOND

Date (Not earlier than Contract Date):

Amount: (5% of Bid)

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company: (Corp. Seal)

SURETY

Company: (Corp. Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: (Corp. Seal)

SURETY

Company: (Corp. Seal)

Signature: _____
Name and Title:

Signature: _____
Name and Title:

EJCDC No. 1910-28-B (1996 Edition)

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

8.02- PAYMENT BOND – BID SECURITY

- A. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.
- B. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:
 - 1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and;
 - 2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.
- C. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.
- D. The Surety shall have no obligation to Claimants under this Bond until:
 - 1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 2. Claimants who do not have a direct contract with the CONTRACTOR:
- E. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
- F. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and
- G. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.
- H. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.
- I. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 2. Pay or arrange for payment of any undisputed amounts.
- J. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
- K. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the

performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.

- L. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
- M. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
- N. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- O. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
- P. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.
- Q. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.
- R. DEFINITIONS
 - 1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.
 - 2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.
 - 3. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform.

9.01 - NAMING OF SUBCONTRACTORS FORM

Per Idaho Code, 67-2310, Bidder shall include in his or her Bid the name, or names and address, or addresses, and Idaho Public Works Contractor License Numbers of the Subcontractors who shall, in the event the Bidder secures the Contract, subcontract the plumbing, heating and air-conditioning work, and electrical work under the general Contract. Failure to name Subcontractors as required shall render any Bid submitted by the Bidder unresponsive and void.

<u>Subcontractor Name and Address</u>	<u>Classification</u>	<u>License Number</u>
_____		_____

_____		_____

_____		_____

_____		_____

10.01 - BID FORM

PROJECT IDENTIFICATION:

City of Hailey WWTP Photovoltaic Project
4297 Glenbrook Dr

THIS BID IS SUBMITTED TO:

The City of Hailey, 115 Main St S, Hailey ID

THIS BID IS SUBMITTED By: _____

- A. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with City of Hailey ('City') in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
- B. Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of CITY.

10.02 BID AGREEMENTS

In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

- A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

<u>Addendum No.</u>	<u>Addendum Date</u>
1. _____	_____
2. _____	_____
3. _____	_____

- B. Attended the Mandatory Site Pre-bid Meeting or made special arrangements to Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;
- D. Obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning site conditions which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including any specific means,

methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;

- E. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
- F. Become aware of the general nature of the work to be performed by City of Hailey ('City') and others at the Site that relates to the Work as indicated in the Project manual and Bidding Documents;
- G. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work or; promptly give City written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by City is acceptable to Bidder.
- H. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this part, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given City written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by City are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.
- I. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- J. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- K. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- L. Bidder has given CITY'S REPRESENTATIVE written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and

SUBMITTED on _____, 19__.

By: (Name, Address, Contact Information):

Idaho Public Works Contractor License No. _____.

Expiration Date _____

Authorized Signature _____

Name in Capital Letters _____