



REQUEST FOR PROPOSAL
(RFP Document # 204377-002)

November 12, 2020

NW Colorado Regional Solar Planning

Solar Project

Electrical Contracting Services (Construction Only)

for

Steamboat Regional EPC Project



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1. PROPOSAL GUIDELINES

Proposals must be emailed in one single PDF document to McKinstry Essention, LLC. Please do NOT submit binders, folders, or any additional information other than the required Attachments list in this document.

SEND PROPOSAL & OTHER RELATED CORRESPONDENCE TO:

Joe Goodman – Construction Project Engineer
Cell Phone: (530) 777-8268
Email: joegoodman@mckinstry.com

PROPOSAL DUE: **Friday, December 4th @ 4:00 pm MDT**

The person designated above shall be the only contact for all inquiries regarding any aspect of this Request for Proposal process and its requirements.

2. ANTICIPATED SCHEDULE

The following are approximate dates for this project. Be advised that McKinstry Essention, LLC. reserves the right to modify this schedule to accommodate the Owner’s operational usage. Final schedule is to be mutually agreed upon between McKinstry Essention, LLC., Owner, and the selected Subcontractor.

RFP SCHEDULE:

RFP issue date:	November 12, 2020
Walk-through:	Tentatively November 19-20, 2020 – Schedule to follow as addendum
Due Date for last questions:	November 25, 2020
Due Date of Proposal:	December 4th, 2020 @ 4:00 pm MDT

ANTICIPATED PROJECT SCHEDULE:

Anticipated Project Commencement: Summer 2021

3. PROJECT SUMMARY & OVERVIEW

McKinstry has been contracted by the City of Steamboat Springs to design, install, commission, and monitor solar installations financed through an energy performance contract. McKinstry is soliciting proposals from a qualified contractor/vendor who can complete the scope of work detailed herein.

We look forward to working with each of our selected contractors/vendors on this project, and we thank you in advance for your time and efforts.



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4. SCOPE OF WORK

4.1. GENERAL

- 1) *Supplemental Documentation:* The following documents support this Scope of Work and shall be considered part of the SUBCONTRACTOR's requirements. Where discrepancies exist among referenced documents, the more stringent shall apply.
 - a) Owner's Construction Design Guidelines and Specifications
 - i) N/A
 - b) Codes
 - i) Steamboat Building Codes
 - ii) Hayden Building Codes
 - iii) Oak Creek Building Codes
 - iv) Yampa Building Codes
 - v) Moffat County - 2018 I.B.C.
 - c) Industry Standards
 - i) IEC62446-1:2016+A1:2018 Minimum requirements for system documentation, commissioning tests and inspection of grid connected photovoltaic systems.
 - (1) Includes measurement procedures and test limits for Insulation Resistance tests
 - ii) IEC6034-6 Low-voltage electrical installations – Part 6: Verification
 - (1) Provides the requirements for the inspection and commissioning of any electrical installation.
 - d) McKinstry Renewable Energy Standards & Best Practices
- 2) *Basis of Design:*
 - a) SUBCONTRACTOR acknowledges that the project includes materials and equipment specifically identified within the RFP Dated 11/12/2020, drawings, specifications and/or contract scope narrative. Specifically identified materials and equipment shall be considered the Basis of Design, and as such are required without substitution to meet the performance and operational requirements of the project.
 - b) SUBCONTRACTOR may submit to McKinstry, prior to the proposal due date listed in the RFP Dated 11/12/2020, a substitution request for material and equipment alternatives to the Basis of Design.
 - i) Substitution requests must provide at a minimum the manufacturer, model, performance specifications, and the change in overall bid price compared to the Basis of Design.
 - ii) Substitution requests shall in no way relieve the SUBCONTRACTOR from its responsibility to provide the Basis of Design materials and equipment.
 - iii) At its sole discretion, McKinstry shall evaluate substitution requests. If a Substitution Request is granted, McKinstry shall then notify all bidders of the approved alternate.
 - iv) SUBCONTRACTOR shall be responsible for any and all changes to supporting systems resulting from acceptance to substitutions.
- 3) *Definitions:*
 - a) Furnish – Purchase and bring to the site equipment, materials, etc.
 - b) Install – Position and fasten equipment, materials, etc. furnished by others.
 - c) Provide – Furnish and install equipment, materials, etc.
- 4) *Acronyms:*
 - a) IOM – Installation & Operations Manual
 - b) MLPE – Module Level Power Electronics
 - c) RSD – Rapid Shutdown Device



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4.2.MCKINSTRY DETAILED GENERAL CONDITIONS

McKinstry assumes responsibility for the following general conditions:

AHJ/Owner Requirements

- 1) Fees and coordination of Planning and Zoning approvals from Authority Having Jurisdictions (AHJ).
- 2) Fees and coordination of all Building and Safety permitting approvals from Authority Having Jurisdiction (AHJ).
- 3) Fees and coordinate with utility for interconnection, incentives, inspections.
- 4) Coordinate facility shutdowns required by Utility or Owner.
- 5) Project signage required by Owner.

Material Responsibility – Delivery to Job Site

- 6) Delivery of all McKinstry procured material to the locations specified in the *Material Scope Responsibility Matrix* below.
- 7) For material being delivered to the jobsite, McKinstry will make best efforts to reasonably coordinate delivery of material to jobsite in partnership with Subcontractor.

Site Access

- 8) Coordinate site access, craning operations, site staging areas, permissible storage areas, permissible parking areas, and hours of operation with the Owner.
- 9) Coordinate any road closures, traffic control.
- 10) All work to be conducted during normal working hours except craning and electrical shutdowns. SUBCONTRACTOR to assume craning and electrical shutdowns to be after hours.

Safety

Permanent Fencing

- 11) [McKinstry will provide any permanent fencing required for the ground mounted arrays.]

Construction Requirements

- 12) McKinstry is responsible for notifying the Owner ten (10) business days in advance of the commencement of installation activities at the Site.
- 13) Responsibility for researching, understanding, and communicating to SUBCONTRACTOR, the specific roof deck-by-roof deck manufacturer warranty requirements to maintain the roofing warranty after installation of a rooftop solar system (as applicable).



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4.3.SUBCONTRACTOR GENERAL CONDITIONS

SUBCONTRACTOR assumes responsibility for the following general conditions as part of their scope of services:

AHJ/Owner/Utility Requirements

- 1) SUBCONTRACTOR will furnish and install the scopes of work in accordance with all current federal, state and local codes, publications and standards relevant to this scope of work as outlined in SECTION 4.1.
- 2) SUBCONTRACTOR will furnish and install the scopes of work in accordance with all YVRA interconnection requirements.
- 3) SUBCONTRACTOR to provide all necessary costs for inspections, permits, licenses, plan checks, connection fees, etc. for the SUBCONTRACTOR's scope of work as required by Authority Having Jurisdiction.
- 4) SUBCONTRACTOR needs to respond to contractor request for inspection notice and be on site within 24 hours of notice.
- 5) No special wage determination for this project is required; project is not classified as prevailing wage or union wage.
- 6) SUBCONTRACTOR shall have all appropriate licenses to conduct work in the municipality, county, and state of project site locations.

Material Responsibility

- 7) SUBCONTRACTOR will furnish all labor, supervision, material, equipment, tools, hoisting, scaffolding, freight, unloading, traffic control, taxes, parking, material and labor escalation, overhead, clean-up and other miscellaneous costs in order to provide a complete and working system.
- 8) SUBCONTRACTOR shall coordinate deliveries of materials at least seven (7) days in advance.
- 9) SUBCONTRACTOR shall be responsible for delivering, unloading, moving, lifting and craning SUBCONTRACTOR procured material shown in the *Material Scope Responsibility Matrix* for the scope of work covered under this Agreement.
- 10) SUBCONTRACTOR shall furnish all hoisting facilities for SUBCONTRACTOR's material, equipment, and personnel. Provide all vertical and horizontal movement of materials, including forklift, crane (as qualified), lifts, scaffolding, etc. as required for unloading, transport and distribution for work under this scope. SUBCONTRACTOR to provide a Crane Pick Plan no later than (2) weeks prior to planned craning operations for McKinstry and Owner's approval.
- 11) SUBCONTRACTOR will assume responsibility for the McKinstry procured materials at two handoff points specified in the *Material Scope Responsibility Matrix*,
 - a) Delivered to the jobsite: Ownership of the materials shall begin after McKinstry inspects the materials on the shipping vehicle. Once SUBCONTRACTOR assumes ownership of the equipment the SUBCONTRACTOR is responsible for securing (including fencing or Conex), storing, unloading, moving, lifting, and craning, as required to complete contracted scope of services.
- 12) SUBCONTRACTOR shall coordinate all equipment and material deliveries, storage and installation with the McKinstry Superintendent.
- 13) [SUBCONTRACTOR shall provide crew flexibility and allow for a (3) day window for all material deliveries.]
- 14) This SUBCONTRACTOR is solely responsible for the security of the materials and equipment for this scope of work throughout the life of the project, including loss from damage, theft, or vandalism.
- 15) All materials supplied by SUBCONTRACTOR will be new and in an unused condition.

Site Access

- 16) SUBCONTRACTOR should expect utility interconnection and facility shutdown to be during off peak hours and include accordingly in bid. SUBCONTRACTOR must provide written Method of Procedures for utility interconnection and facility shutdown at least (2) weeks in advance of the shut down for McKinstry and Owner's approval.
- 17) SUBCONTRACTOR shall provide backup generator for critical facilities during shutdown.

Safety

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- 18) SUBCONTRACTOR is responsible for safety of all direct and subcontract personnel performing work, and for the safety of their work and all others in the areas of the site being worked on.
- 19) SUBCONTRACTOR shall meet all safety standards required by McKinstry, OSHA, applicable law, and shall create a site-specific safety plan for the Project.
- 20) SUBCONTRACTOR is responsible for providing temporary safety fall protection systems relevant to their scope of work.
- 21) In the event existing ladders and/or roof access does not meet current OSHA requirements, SUBCONTRACTOR shall provide ladders. Roof access plans shall be included in the Site-Specific Safety Plan provided and approved by McKinstry before mobilization.
- 22) If SUBCONTRACTOR disturbs an area that is suspected to be asbestos, SUBCONTRACTOR shall seal off the area, post hazard signs for the area, and contact McKinstry. Awarded SUBCONTRACTOR will be provided ACM good faith survey/reports for each location upon request. SUBCONTRACTORS are not responsible for asbestos abatement work.
- 23) SUBCONTRACTOR is responsible for providing all temporary fencing, barricades, secured containers, and other forms of protection as required to protect personnel and general public from injury during construction.

Sanitation, Trash & Recycling

- 24) SUBCONTRACTOR will provide readily accessible sanitation facilities for contractor use during construction, including portable toilets.
- 25) SUBCONTRACTOR is responsible for providing any dumpsters necessary to complete the scope of work herein.
- 26) SUBCONTRACTOR is responsible of the disposal of non-ACM hazardous materials per state and federal regulations and requirements.

Licensing/Background Checks

- 27) SUBCONTRACTOR shall have all appropriate licenses to conduct work in the municipality, county, and state of project sites.
- 28) SUBCONTRACTOR is responsible for all expenses associated with client required badging and background checks for employees.
 - a) *Define what the client required badging and background checks are.*

Project Management

- 29) SUBCONTRACTOR will provide the appropriate supervision in both the field and office to maintain and execute the work according to the above-mentioned Supplemental Documents.
- 30) SUBCONTRACTOR must provide daily signed logs for all employees on site indicating the trade work and hours performed by individual employees.
- 31) SUBCONTRACTOR must submit Certificate of Insurance to subinsurance@mckinstry.com.

Schedule

- 32) SUBCONTRACTOR acknowledges that McKinstry has employed other contractors to work on the project.
- 33) SUBCONTRACTOR will coordinate with other contractors so the work can proceed in an orderly, productive, and continuous operation. Due to the nature of the work, multiple move-ins may be required, and SUBCONTRACTOR shall include these in the cost of work.

Construction Requirements

- 34) SUBCONTRACTOR shall notify McKinstry immediately of any damage to the existing facilities found prior to mobilization.
- 35) SUBCONTRACTOR shall notify McKinstry of any expected damage to the existing conditions due to this scope of work. Given such knowledge of potential damage, if McKinstry does not direct work to proceed, SUBCONTRACTOR shall be responsible for any damage to the existing conditions. If McKinstry is not



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- alerted of such potential damage and SUBCONTRACTOR damages existing conditions, SUBCONTRACTOR shall be responsible for this damage to the existing conditions.
- 36) SUBCONTRACTOR shall protect all existing finish work and roof surfaces from damage during mobilization, installation and demobilization. Subcontractor shall notify McKinstry immediately of any damage to the existing facilities and patch and repair any damage to existing facilities caused during mobilization and the installation of the project. All repairs must be as good, or in better than the condition at the time the damage occurred.
 - 37) SUBCONTRACTOR is responsible for any patching, painting, and repair of existing surfaces damaged by SUBCONTRACTOR'S work.
 - 38) SUBCONTRACTOR to provide all necessary penetrations as required for a complete working system. SUBCONTRACTOR to provide all waterproofing, caulking, damp proofing, etc. for penetrations created to complete the work including all roof penetrations and repair.
 - 39) SUBCONTRACTOR to provide and install all necessary framing, hangars, inserts, racking, suspension systems, backing/blocking, bracing, sleeves, fasteners, caulking, fire caulking for a complete system.
 - 40) The SUBCONTRACTOR is responsible for maintaining fire ratings at all penetrations required for this scope of work. SUBCONTRACTOR is to provide all sleeves, caulking, fire seals, firesafing, firestopping, fire caulking, penetration seals, flashing, escutcheon plates and assemblies, or other material for penetrations for this scope. All materials shall be installed in a manner that meets the material Manufacturer's recommendation. All penetrations in designated assemblies are to be U.L. rated to meet applicable codes. Sealing of penetrations shall be in accordance with local codes and must meet sound attenuation requirements as well as aesthetic requirements.
 - 41) SUBCONTRACTOR is responsible for field verification of materials and all field measurements prior to installation or submittal of shop drawings. Field verification, as noted on the drawings, includes field measurements, general fitment and verifying substrate/surface is adequate before installation.
 - 42) SUBCONTRACTOR shall coordinate and verify equipment and device locations with McKinstry prior to rough-in.
 - 43) SUBCONTRACTOR to provide temporary lighting, task lighting, and weather protection as necessary to complete the work.
 - 44) SUBCONTRACTOR shall provide any temporary utilities required for construction site, including backup power during facility shutdowns if necessary.
 - 45) SUBCONTRACTOR must provide all locates (public and private) necessary for areas that will be impacted by their scope of work.
 - 46) SUBCONTRACTOR is responsible for at their expense, repairing any damaged underground utilities or obstructions caused by excavating, trenching, or directional boring ground.
 - 47) SUBCONTRACTOR shall take all necessary measures to prevent tracking of mud onto surrounding streets and driveways. Any major cleaning as a direct result of this scope of work is the responsibility of the SUBCONTRACTOR.
 - 48) SUBCONTRACTOR to provide a site laydown plan for approval by McKinstry and the Owner no later than (2) weeks prior to mobilization.
 - 49) For roof mounted systems, SUBCONTRACTOR shall secure any loose material with straps rather than ballast blocks. SUBCONTRACTOR shall include this in their Site-Specific Safety Plan and obtain McKinstry approval prior to mobilization.
 - 50) [For roof mounted systems, SUBCONTRACTOR to provide a temporary Roof Protection Plan for McKinstry approval prior to installation. Roof Protection Plan shall meet industry standard practice and include;
 - a) Place all pallet loads greater than 15psf on OSB boards with foam board underneath (or similar materials) that can spread the load without damaging the membrane/insulation below.
 - b) Protect areas that are considered high traffic (or frequently traveled) with OSB boards and/or walk mat material (weighted down when necessary to avoid wind uplift). OSB board should be used in any locations frequently traveled by hand carts. High traffic areas are walkways traveled more than 2-3 times a day.
 - c) Use hand carts with balloon wheels to spread the load while moving heavy equipment on the roof. Wheel load should not exceed 15 psi unless approved by McKinstry.
 - d) Any damage to the roof must be identified with a clear mark on the roof immediately after it occurs. Report the damage to the McKinstry Superintendent immediately.



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Taxes

51) SUBCONTRACTOR shall include tax rates of 4.5% (City of Steamboat Springs), 2.0% (Town of Yampa), 3.0% (Town of Oak Creek), and 4.0 % (Town of Hayden, Moffat County) in their scope of work.

Workmanship Warranty

52) SUBCONTRACTOR must provide a minimum 1-year workmanship warranty for all installed equipment and labor beginning on the date of substantial completion.

a) Warranty shall include all labor and materials to execute warranty work. McKinstry will be responsible for equipment warranties on McKinstry procured materials. Subcontractor(s) shall provide a workmanship warranty for installing McKinstry procured materials. For example, if a warranty issue arises that is solely due to an equipment defect, McKinstry will be responsible for the labor and equipment costs associated with repair/replacement. Once the Subcontractor(s) take ownership of McKinstry procured equipment, if a warranty issue arises that is due to improper installation or improper handling, the subcontractor will be responsible for labor costs and any equipment repair/replacement costs that are directly related to improper installation or handling.

4.4.SUBCONTRACTOR DETAILED SCOPE OF WORK

4.4.1. OVERVIEW

The SUBCONTRACTOR shall provide all necessary construction services to successfully complete a 2,132.8 kW DC/ 1,563 kW AC Ground Mount/Rooftop PV system installation.

We will likely not award the entire scope to one bidder. Rather the project portfolio will be divided amongst X groups. McKinstry plans on awarding groups based on value, economics and ability to meet implementation schedules. Bidders are asked to bid based on documents provided by McKinstry and reasonable assumptions based on best practices. Therefore, any existing code violations, concealed or unknown conditions, and potential NEC working space requirement conflicts can be excluded from pricing at this time. Please notify McKinstry if any of the issues above are identified during site walks.

4.4.2. PROJECT SITE LIST

Group	Site	Address	PV Array Size (kW dc)	System Application
1a	Craig Wastewater Treatment Facility - Meter 1	2301 W. 1st St., Craig, CO 81625	209.1	Ground Mount
1a	Craig Wastewater Treatment Facility - Meter 2	2301 W. 1st St., Craig, CO 81625	62.7	Ground Mount
1b	Craig Water Treatment Facility	111 Ranney St., Craig, CO 81625	209.1	Ground Mount
1c	Moffat County Safety Center	800 W. 1st St., Craig, CO 81625	209.1	Ground Mount
1d	Moffat High School - Meter 1	900 Finely Ln., Craig, CO 81625	209.1	Ground Mount
1d	Moffat High School - Meter 2	900 Finely Ln., Craig, CO 81625	34.9	Ground Mount
2a	City of Steamboat Springs Transit Operations Center	1463 13th St., Steamboat Springs, CO 80487	41.8	Rooftop
2b	City of Steamboat Springs Wastewater Treatment Plant - Meter 1	39565 Routt County Rd. 33, Steamboat Springs, CO 80487	209.1	Ground Mount



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2b	City of Steamboat Springs Wastewater Treatment Plant – Meter 2	39565 Routt County Rd. 33, Steamboat Springs, CO 80487	209.1	Ground Mount
3a	Yampa Valley Regional Airport – Meter 1	11005 Routt County Rd. 51A, Hayden, CO 81639	209.1	Ground Mount
3a	Yampa Valley Regional Airport – Meter 2	11005 Routt County Rd. 51A, Hayden, CO 81639	41.8	Ground Mount
3b	Hayden Police Station	249 Hawthorne St., Hayden, CO 81639	36.9	Rooftop
3c	Hayden School District Secondary Site Redevelopment Building	495 W. Jefferson Ave., Hayden, CO 81639	209.1	Rooftop
3d	Hayden Wastewater Treatment Plant	1200 W. Jefferson Ave., Hayden, CO 81639	209.1	Ground Mount
4a	Oak Creek Town Hall	129 Nancy Crawford Blvd., Oak Creek, CO 80467	20.5	Rooftop
4b	Yampa Old Town Hall	56 Lincoln St., Yampa, CO 80483	12.3	Rooftop

4.4.3. MATERIAL SCOPE RESPONSIBILITY MATRIX

Subcontractor shall review the table below and incorporate furnishing materials in their proposal.

- 1) Furnish at SUBCONTRACTOR’s expense, all material shown in the *Material Scope Responsibility Matrix*.
- 2) Furnish at SUBCONTRACTOR’s expense, all miscellaneous electrical AC & DC material not specifically shown in the *Material Scope Responsibility Matrix* required to construct an electrically complete solar system, interconnected to the utility grid.

Ground Mount Scope Responsibility Matrix:

Scope Item #	Scope Item Description	Electrical Subcontractor	Mounting Structure Installer	McKinstry
1	DC Module Grounding & Bonding	-	Provide	-
	DC Racking Grounding & Bonding	Provide	-	-
	DC Wire Management	Provide	-	-
	DC Combiners	Provide	-	-
	AC Panelboards	Provide	-	-
	AC & DC Cable & Conduit/Conductors	Provide	-	-
	AC Main Disconnect	Provide	-	-
	AC Switchgear	Provide	-	-



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	AC Switchgear Protective Devices	Provide	-	-
	AC Grounding & Bonding	Provide	-	-
	Inverters	Install	-	Furnish
	Inverter Fuses ¹	Install	-	Furnish
	Inverter & BOS Mounting Posts	-	Provide	-
	Inverter & BOS Racking		Provide	
	Utility Bi-Directional Meter Base	Provide	-	-
	Labeling Material	Provide	-	-
	Underground Boring/Trenching	Provide	-	-
	Data Acquisition System (DAS)	Install	-	Furnish
	Communication Cable & Conduit	Provide	-	-
2	Transformer	Provide	-	-
	Transformer Pad	Provide	-	-
	Grounding Transformer	Provide	-	-
3	Modules	-	Install	Furnish
4	Ground Mount Foundations (Piles/Posts)	-	Provide	-
	Ground Mount Racking & Hardware	-	Provide	-
5	Permanent Fence	-	-	Provide

1. Inverter Fuses may need to be replaced. If McKinstry is furnishing inverters, confirm the fuse size included in the inverter meets the spec in the Issued for Construction (IFC) drawings.

Flat Rooftop Scope Responsibility Matrix:

Scope Item #	Scope Item Description	Electrical Subcontractor	Mounting Structure Installer	McKinstry
1	DC Module Grounding & Bonding	-	Provide	-
	DC Grounding & Bonding	Provide	-	-
	DC Wire Management	Provide	-	-
	MLPE/RSD Device	Install	-	Furnish
	AC Panelboards	Provide	-	-



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	AC & DC Cable & Conduit/Conductors	Provide	-	-
	AC Main Disconnect	Provide	-	-
	AC Switchgear	Provide	-	-
	AC Switchgear Protective Devices	Provide	-	-
	AC Grounding & Bonding	Provide	-	-
	Inverters	Install	-	Furnish
	Inverter Fuses ¹	Install	-	Furnish
	Inverter Mounting Rack	Install	-	Furnish
	Inverter Shade Cover	Install	-	Furnish
	Utility Meter Base	Provide	-	-
	Utility Bi-Directional Meter Base	Provide	-	-
	Labeling Material	Provide	-	-
	Underground Boring/Trenching	Provide	-	-
	Data Acquisition System (DAS)	Install	-	Furnish
	Communication Cable & Conduit	Provide	-	-
2	Transformer	Provide	-	-
	Transformer Pad	Provide	-	-
	Grounding Transformer	Provide	-	-
3	Modules	Install	-	Furnish
4	Rooftop Racking & Anchor Hardware	Install	-	Furnish
	Rooftop Ballast Blocks	Provide	-	-
	Rooftop Membrane Slip Sheets ²	Provide	-	-

1. Inverter Fuses may need to be replaced. If McKinstry is furnishing inverters, confirm the fuse size included in the inverter meets the spec in the Issued for Construction (IFC) drawings.

2. Slip sheets shall match roof type and manufacturer of roof below.

Pitched Rooftop Scope Responsibility Matrix:

Scope Item #	Scope Item Description	Electrical Subcontractor	Mounting Structure Installer	McKinstry
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1	DC Module Grounding & Bonding	-	Provide	-
	DC Grounding & Bonding	Provide	-	-
	DC Wire Management	Provide	-	-
	MLPE/RSD Device	Install	-	Furnish
	AC Panelboards	Provide	-	-
	AC & DC Cable & Conduit/Conductors	Provide	-	-
	AC Main Disconnect	Provide	-	-
	AC Switchgear	Provide	-	-
	AC Switchgear Protective Devices	Provide	-	-
	AC Grounding & Bonding	Provide	-	-
	Inverters	Install	-	Furnish
	Inverter Fuses ¹	Install	-	Furnish
	Inverter Mounting Rack	Provide	-	-
	Inverter Shade Cover	Install	-	Furnish
	Utility Meter Base	Provide	-	-
	Utility Bi-Directional Meter Base	Provide	-	-
	Labeling Material	Provide	-	-
	Underground Boring/Trenching	Provide	-	-
	Data Acquisition System (DAS)	Install	-	Furnish
Communication Cable & Conduit	Provide	-	-	
2	Transformer	Provide	-	-
	Transformer Pad	Provide	-	-
	Grounding Transformer	Provide	-	-
3	Modules	Install	-	Furnish
4	Rooftop Racking & Anchor Hardware	Install	-	Furnish

1. Inverter Fuses may need to be replaced. If McKinstry is furnishing inverters, confirm the fuse size included in the inverter meets the spec in the Issued for Construction (IFC) drawings.

Backup Generator Scope Responsibility Matrix:



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Scope Item #	Scope Item Description	Electrical Subcontractor	Mounting Structure Installer	McKinstry
1	Diesel Generator	Install	-	Furnish
2	AC Cable & Conduit/Conductors	Provide	-	-
3	Automatic Transfer Switch	Install	-	Furnish

Backup Battery Scope Responsibility Matrix:

Scope Item #	Scope Item Description	Electrical Subcontractor	Mounting Structure Installer	McKinstry
1	Outback Load Center & Inverter/Charger	Install	-	Furnish
2	Outback Integrated Battery Rack & Battery Array	Install	-	Furnish
3	AC Cable & Conduit/Conductors	Provide	-	-
4	Automatic Transfer Switch	Install	-	Furnish

4.4.4. ELECTRICAL CONTRACTING SERVICES - CONSTRUCTION

SUBCONTRACTOR will, without limitation, assemble, construct, and install with its own forces or with Subcontractors the following work:

General Requirements

- 1) SUBCONTRACTOR shall furnish all tools, equipment, transportation, and labor necessary to furnish the services herein described.
- 2) Install and wire all electrical components and interconnect the system in accordance with NEC, Owner and YVEA requirements.
- 3) SUBCONTRACTOR to complete site restoration and restore areas of disturbance to their original condition.
- 4) SUBCONTRACTOR to coordinate with YVEA to ensure installation compliance.
- 5) SUBCONTRACTOR shall be responsible for relisting electrical gear, should the need arise.
- 6) The Engineer of Record will provide direction on AC conduit routing. Subcontractor shall submit DC conduit routing for review and approval by McKinstry and the Owner. For exterior mounted conduit to be acceptable, it must be clearly identified on conduit routing drawings for McKinstry and Owner approval.

DC Install

- 7) Wire all modules per Issued for Construction (IFC) drawing set and applicable module installation manuals provided by module manufacturer.
- 8) DC wire management shall comply with the following requirements;
 - a) DC conductors shall be properly routed to avoid sharp edges, rough surfaces, overly tight bending radii, moving parts of racking systems, direct exposure to sunlight, sagging wires, or mis-sized cable clips.

- b) DC conductors shall be supported by stainless steel wire clips, UV-stabilized composite wire clips, UV-stabilized wire ties or a cable tray. Standard Nylon 6/6 zip ties are NOT acceptable.
 - c) DC wire management shall comply with NEC 2020 Article 690.31(C)(1).
 - i) *Code Reference: NEC 2020 Article 690.31(C)(1): Exposed cables shall be supported and secured at intervals not to exceed 600mm (24 in.) by cable ties, straps, hangers or similar fittings listed and identified for securement and support in outdoor locations. PV wire or cable shall be permitted in all locations where RHW-2 is permitted. Exception: PV Systems meeting the requirements of 691.4 shall be permitted to have support and securement intervals as defined in the engineered design.*
 - d) Intra-array sleeving is required to protect all 'north/south' row-to-row DC conductors and meet 4.4.4.8.c. Sleeving shall meet one of the following requirements;
 - i) Racking manufacturer provided DC wire management products
 - ii) PVC (flexible or Schedule 40)
 - iii) UV Resistant (outdoor rated) split loom corrugated tubing
 - e) DC module connectors shall match the connector specification of the PV module specified for the project(s). Contractor shall confirm with McKinstry which module connectors to use prior to procurement.
- 9) DC bonding and grounding required by the AHJ adopted codes and racking.

MLPE/RSD Install

- 10) SUBCONTRACTOR to install any Module Level Power Electronics (MLPEs) or Rapid Shutdown Units (RSDs) per Issued for Construction (IFC) drawing set and applicable manufacturer installation manuals.
- a) *Note: Tigo TS4-2F units will require separate conduit for PV conductors (DC Homeruns) that share a different RSS Transmitter per the Tigo TS4-2F Installation Manual Addendum.*

AC Install

- 11) SUBCONTRACTOR to provide all conductors and conduit required to interconnect the system in accordance with YVEA and NEC standards. Any material changes or deviations from the Issued for Construction (IFC) drawings will be approved by McKinstry prior to installation. SUBCONTRACTOR will be responsible for all costs associated with changes without McKinstry consent.
- 12) SUBCONTRACTOR to install Inverters with correctly sized inverter fuses and AC combiners.
- a) Wire all inverters per Issued for Construction (IFC) drawing set and inverter manufacturer installation manuals.
 - b) All MPPTs shall be properly balanced according to inverter manufacturer installation manuals.
- 13) SUBCONTRACTOR to provide switchgear per Issued for Construction (IFC) drawings provided by McKinstry.
- a) Switchgear to include combiner panel, FDS fuse disconnect switch (include surge arrester at location), and AC distribution panel.
 - b) SUBCONTRACTOR shall be responsible for the housekeeping pad structural engineering design if equipment is greater than 400lbs per IBC 1708.5. Other exemptions may apply. Consult with McKinstry prior to installation if equipment is greater than 400lbs.
- 14) SUBCONTRACTOR to provide the required meter housing(s) for project metering in accordance with local utility standards.
- 15) SUBCONTRACTOR to provide AC system disconnects as required by the local utility and AHJ adopted codes.
- 16) SUBCONTRACTOR to provide Arc Flash labels, equipment labels, and safety labels per NEC requirements. Arc Flash study details will be provided by design engineers.

Boring/Trenching

- 17) SUBCONTRACTOR to complete trenching, directional boring, and required backfill to provide an electrically complete solar system, interconnected to the utility grid.



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- a) Install AC trenching. Depth, width, depth flagging, and utility inspections shall be installed/completed in accordance with YVEA standards.
 - b) Install DC trenching. Depth, width, depth flagging, and utility inspections shall be installed/completed in accordance with YVEA standards.
 - c) Communication trenching depth, size, depth flagging, and McKinstry inspections shall be installed/completed in accordance with McKinstry and YVEA standards.
- 18) SUBCONTRACTOR required to submit trenching and/or boring plan for approval by McKinstry prior to excavating ground.
- 19) SUBCONTRACTOR to repair/restore trenched areas as needed. Contractor to restore disturbed areas to their original condition.

Transformer (If Applicable)

- 19) *BEHIND THE METER/CUSTOMER SIDE CONNECTION ONLY*
- a) SUBCONTRACTOR to provide any transformers required by the Issued for Construction (IFC) drawing set.
 - i) Transformers and/or grounding transformers shall be installed in accordance with YVEA standards and AHJ codes.
 - b) SUBCONTRACTOR shall be responsible for the housekeeping pad structural engineering design if equipment is greater than 400lbs per IBC 1708.5. Other exemptions may apply. Consult with McKinstry prior to installation if equipment is greater than 400lbs.

DAS (Data Acquisition System)

- 21) Installation of data acquisition system (DAS) including conduit, metering, CT's, data logger, communications cabling, and weather station components (pyranometers, back of panel temperature sensor, and ambient temperature sensors shall be installed per manufacturer manuals)
- 22) SUBCONTRACTOR to install seal tight data acquisition system (DAS) conduit.
- 23) Any splices made between RS485 data connections shall use gel crimp wire connectors. RS485 cable should be Belden 3106A or similar.

Module Install

- 24) SUBCONTRACTOR to install all modules per Issued for Construction (IFC) drawing set and applicable manufacturer installation manuals.
- 25) SUBCONTRACTOR is responsible for installation of solar modules and associated module installation hardware, including module bonding inherent within all module mounting hardware, as specified in Issued for Construction documents.
- 26) SUBCONTRACTOR is responsible for replacing solar modules broken during installation at their expense.
- 27) SUBCONTRACTOR is required to handle solar modules with extreme care, including, but not limited to: not sitting, walking or stepping on modules, not resting modules on helmet while transporting, unpacking and transporting modules per manufacturer requirements, and all other reasonable precautions. Violation of this scope item will result in a minimum of material and labor replacement at the contractor's expense, and full responsibility of any future damages to McKinstry as a result of Subcontractor's improper installation practices.
- 28) SUBCONTRACTOR is responsible for daily spot inspections to array during installation to ensure modules are attached to racking system appropriately and securely, including any associated temporary installation requirements.

Racking Install

- 29) SUBCONTRACTOR to provide all racking material identified in the *Material Scope Responsibility Matrix*.
- 30) SUBCONTRACTOR to provide all miscellaneous mounting structure material not specifically shown in the *Material Scope Responsibility Matrix* required to construct a code compliant, structurally erected solar mounting system, as specified in Issued for Construction documents.
- 31) SUBCONTRACTOR to install racking, ballast blocks, anchor hardware (mechanical attachments) protective membrane slip sheets, and per Issued for Construction drawings.



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- a) Ballasted roofs systems – SUBCONTRACTOR shall be responsible for removing the stone/gravel directly underneath the racking system prior to installation.
- 32) SUBCONTRACTOR shall be responsible for surveying the roof to confirm the final location of all racking components per the IFC Dwg's and racking manufacturer's installation manual. Surveying shall include thermal expansion breaks where applicable.
- 33) SUBCONTRACTOR shall install mounting structure row spacing and module tilt installed per Issued for Construction drawings.
- 34) SUBCONTRACTOR shall submit a roof deck warranty maintenance plan that adheres to the roof deck warranty maintenance requirements. Warranty maintenance requirements to be received from McKinstry's Construction Manager prior to commencement of any rooftop solar construction.
- 35) SUBCONTRACTOR shall provide pre-installation and post-installation roof deck inspection by a certified roofing installer of the specific roof manufacturer installed on each applicable roof deck. Some roofing manufacturers do not require a pre-install inspection to maintain roof warranty, regardless, SUBCONTRACTOR shall have a roofing installer certified on the specific manufacturer's roof system provide a pre-install inspection. A report of any deficiencies discovered during the pre-install inspection shall be provided to McKinstry/the Owner at least (3) weeks in advance of install to ensure the owner has adequate time to correct deficiencies prior to install. It is not the responsibility of the SUBCONTRACTOR to correct deficiencies discovered during the pre-install inspection.
- 36) SUBCONTRACTOR shall also provide, as required, built-up roof (BUR) spudding, protective membrane slip sheets and installation of approved mechanical attachments.
- 37) SUBCONTRACTOR will hire a certified roofing installer of the specific roof manufacturer installed on each applicable roof deck for the scope of flashing/sealing all mechanical roof attachments and roof penetrations. Installation must follow current roof warranty holder requirements.
 - a) McKinstry will hire a SEOR to determine the fastener specification and minimum embedment depth of the fastener into the structural component of the roof.
 - b) SUBCONTRACTOR and subcontracted roofer shall determine the depth of the coverboard, and insulation required to determine the total fastener length.
- 38) SUBCONTRACTOR is responsible for handling and loading material on rooftops, as per structural engineering loading plan. SUBCONTRACTOR to provide desired roof loading plan for review and approval by McKinstry's Structural Engineer.
- 39) For mounting structures provided by SUBCONTRACTOR, mounting structure will comply with UL2703 and be approved by McKinstry prior to installation.

Diesel Generator Install

- 40) SUBCONTRACTOR to install any diesel generators required by the Issued for Construction (IFC) drawing set.
 - a) Generators shall be installed in accordance with YVEA standards and AHJ codes.
 - b) SUBCONTRACTOR to form and pour a generator pad according to this scope of work and the attached drawings.
 - c) SUBCONTRACTOR shall be responsible for the generator pad structural engineering design if equipment is greater than 400lbs per IBC 1708.5. Other exemptions may apply. Consult with McKinstry prior to installation if equipment is greater than 400lbs.
- 41) SUBCONTRACTOR to install any automatic transfer switches required by the Issued for Construction (IFC) drawing set.
- 42) SUBCONTRACTOR to provide and install all new cabling and conduit to extend the incoming service and the generator into the new ATS.
- 43) SUBCONTRACTOR to provide and install all ground and electrical conductors per drawings.
- 44) SUBCONTRACTOR to reroute incoming service to the new ATS location and repurpose existing cabling and grounding to terminate at the new ATS.

Backup Battery Install

- 45) SUBCONTRACTOR to install any backup battery systems and load centers required by the Issued for Construction (IFC) drawing set.



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- a) Batteries shall be installed in accordance with YVEA standards and AHJ codes.
- b) SUBCONTRACTOR to form and pour a housekeeping pad with a Unistrut rack to mount equipment according to this scope of work and the attached drawings.
- 46) SUBCONTRACTOR to provide and install all new cabling and conduit to extend the incoming service from PAPI disconnect to new battery load center.
- 47) SUBCONTRACTOR to provide and install all new cabling and conduit to connect load center to integrated battery rack.
- 48) SUBCONTRACTOR to reroute and repurpose existing cabling and conduit and grounding from the load center to existing loads.

4.4.5. ELECTRICAL CONTRACTING SERVICES – COMMISSIONING & CLOSE OUT

SUBCONTRACTOR shall provide project commissioning services by conducting the Pre-Functional and Startup Testing shown in the *Commissioning Responsibility Matrix and Solar Commissioning Plan attached*. SUBCONTRACTOR is also responsible for all Close Out documentation and training as outlined below.

General Requirements

- 1) SUBCONTRACTOR must use NEC and implement NETA ATS testing standards for all voltages above 120VAC.
- 2) SUBCONTRACTOR is responsible for properly documenting the results of each Pre-Functional test.
- 3) Prior to testing, SUBCONTRACTOR is required to submit their proposed test procedure and final format for review by McKinstry. Failure to properly complete and thoroughly document commissioning tests will prevent both substantial and final completion payments.
- 4) SUBCONTRACTOR must provide on-site commissioning support to make adjustments or corrections identified by commissioning agent. If SUBCONTRACTOR does not have personnel capable of making adjustments, then SUBCONTRACTOR shall make factory trained persons available to McKinstry.

Commissioning Scope Responsibility Matrix

Subcontractor shall review the table below and incorporate commissioning tests into their proposal.

Special Note: MLPE Commissioning must be performed and successfully completed prior to installing the string fuses in the inverters and landing any DC Homeruns on the inverter terminal block. Remote power and internet access must be provided to the CCA for up to 48 hours to perform MLPE commissioning in this order.

Commissioning Test	Type of Test	Electrical Subcontractor	Mounting Structure Installer	McKinstry
Mech Torque Spot Check	Pre-Functional		Execute & Provide PDF	Witness
MLPE Serial Mapping (if applicable)	Pre-Functional	Execute & Provide PDF		Witness
MLPE Commissioning (If Applicable) ¹	Pre-Functional	Execute & Provide PDF		Witness
DC Insulation Resistance Test	Pre-Functional	Execute & Provide PDF		Witness
DC Polarity & Torque Test	Pre-Functional	Execute & Provide PDF		Witness
AC Insulation Resistance Test	Pre-Functional	Execute & Provide PDF		Witness
AC Polarity & Torque Test	Pre-Functional	Execute & Provide PDF		Witness
EGC Continuity Test	Pre-Functional	Execute & Provide PDF		Witness



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System Startup	Startup	Execute	Witness
Site Inspection	Functional		Execute
I-V Curve Tracing	Functional		Execute
Thermal Imaging (Major AC Equipment Only)	Functional		Execute
Data Acquisition System Test	Functional		Execute
Performance Test	Functional		Execute

1. Temporary power and internet access may need to be provided for MLPE Commissioning. MLPE Serial Mapping must be completed prior to MLPE Commissioning.

Commissioning Test Reports

SUBCONTRACTOR shall review the table below and incorporate commissioning reports into their proposal.

Commissioning Test	Description	Deliverable
Mech Torque Spot Check	Spot check 2-5% of all mechanical torque connections to ensure compliance with the manufacturer torque specifications.	Pdf with torque values and components spot checked. See McKinstry <i>DC Polarity & Torque Inspection</i> form.
MLPE Serial Mapping (if applicable)	Record all MLPE serial numbers in an organized spreadsheet OR remove the second barcode from each MLPE and create a paper system map. The spreadsheet or map should locate each MLPE according to its final location (in relation to each string/inverter).	Excel file or paper site map of MLPE serial numbers.
MLPE Commissioning (if applicable)	Configure and test all MLPE using the manufacturer’s cloud-based monitoring platform.	Screenshot of the cloud-based monitoring platform showing each MLPE is reporting and functioning properly.
DC Insulation Resistance Test	Test and record all DC homerun(s) insulation resistance measurements with a megohmmeter. Testing procedure shall follow recommendations described ANSI/NETA ATS-2017. Passing results shall exceed insulation resistance values outlined in NETA Table 100.1.	Pdf results with insulation recordings of all DC cables tested. See McKinstry <i>DC Insulation Resistance Test Report</i> form.
DC Polarity & Torque Inspection	Test and record all DC circuit polarity landed on the inverter. Check that all terminations are properly torqued. Immediately remedy any circuit found to have reverse polarity.	Pdf confirming all DC circuits have correct polarity. See McKinstry <i>DC Polarity & Torque Inspection</i> form.
AC Insulation Resistance Test	Test and record all AC cable insulation resistance measurements with a megohmmeter. Testing procedure shall follow recommendations described ANSI/NETA ATS-2017. Passing results shall exceed insulation resistance values outlined in NETA Table 100.1.	Pdf results with insulation recordings of all AC cables tested. See McKinstry <i>AC Insulation Resistance Test Report</i> form.
AC Polarity & Torque Inspection	Test and record continuity of all AC cables to ensure each cable is terminated on the correct phase. Check that all terminations are properly torqued with markings present.	Pdf results with insulation recordings of all AC cables tested. See McKinstry <i>AC Polarity & Torque Inspection</i> form.
EGC Continuity Test	Test and record continuity readings for all grounding and bonding connections to create a continuous path from equipment to ground. Bonding path shall include all system components (solar module, inverter, AC distribution equipment etc.). Check that all terminations are properly torqued with markings present.	Pdf with photo documentation and signature that the ground path has been properly installed. See McKinstry <i>EGC Continuity Report</i> form.

Close Out



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- 5) SUBCONTRACTOR will provide McKinstry with a "Close Out Package" that includes the following documents: (All documents shall be provided in digital format and hardcopies as required by the Owner).
 - a) Pre-Functional commissioning test results.
 - b) Equipment list of AC/DC equipment provided by SUBCONTRACTOR with installation date, warranty period, serial number and any manufacturer IOM manuals, including product data sheets.
 - c) Issued for Construction (IFC) drawing redlines.
 - d) String Wiring Diagram with the string # and inverter # listed for each string.
 - e) DAS Communication cable routing diagram.
 - f) Copies of passed inspection documents from the AHJ or utility, as applicable.
- 6) SUBCONTRACTOR will be responsible for repairing any issues documented on the Punchlist. Failure to properly complete and thoroughly document corrected Punchlist items will prevent final completion payment.

Training

- 7) SUBCONTRACTOR must provide a minimum of 4 hours of on-site training to key facility personnel. Training will be videotaped by McKinstry. Training syllabus must be approved by McKinstry prior to beginning training.

4.4.6. PRICING BREAKOUT

Subcontractor shall review the bid pricing spreadsheet included in *Attachment H – Final Pricing Form* and provide a proposal with breakouts as seen in the tables. Subcontractors should identify any value-added options or differentials that they are proposing and include a short description of how it adds value to the project in *Attachment B – Value Added or Engineering*.

4.4.7. ALTERNATE SCOPE OF WORK

SUBCONTRACTOR may provide pricing for the following alternate scope of work items. Pricing shall be broken out separately from the base scope of work listed in the sections above.

- 1) Bidders are encouraged to provide a bid alternate for the backup diesel generator scope with their own procurement of generator and ATS.

5. GENERAL PROJECT INFORMATION

5.1. BASIS OF SUBCONTRACTOR SELECTION

McKinstry Essention, LLC. expects to award this project to the best valued Respondent(s) ("Subcontractor(s)") based on the requirements in this solicitation.

The Respondent(s) selected for award will be the Respondent(s) whose proposal is responsive, responsible, and is the most advantageous to McKinstry Essention, LLC., as determined by the McKinstry Essention, LLC. in its sole discretion. The awarded Subcontractor is expected to complete this project without any delays or cost increases and meet the quality expectations of McKinstry Essention, LLC. McKinstry Essention, LLC. anticipates that all qualified Respondents will have a fair and reasonable opportunity to provide service.

McKinstry Essention, LLC. intends to award a contract, subject to the terms of this solicitation, to the best valued Respondent(s). McKinstry Essention, LLC. may choose to award portions of this project to one or more Subcontractors. McKinstry Essention, LLC. may add, delete, or modify any requirement or statement in this solicitation if McKinstry Essention, LLC. deems that it is in the best interest of McKinstry Essention, LLC. and the Owner.



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All submittal contents become the property of McKinstry Essention, LLC. and may become a part of any resulting contract. Award or rejection of a proposal does not affect this right.

McKinstry Essention, LLC. reserves the right to clarify, or seek clarification, on any submittal (this includes, but is not limited to, contacting past clients to verify performance, interviewing key personnel, performing additional investigating on the respondent's performance history, and requiring additional documentation or information to respond to any performance findings).

5.2. QUESTIONS & INQUIRIES

Respondents who have questions about this Request for Proposal should e-mail such questions to the Contact listed above by the date noted in the tentative schedule of events found above. Responses to written questions which involve an interpretation or change to this Request will be issued in writing by addendum and forwarded to all parties recorded by McKinstry Essention, LLC. as having received a copy of this Request. All such addenda issued by McKinstry Essention, LLC. prior to the time that responses are received shall be considered part of the Response.

Only additional information provided by formal written addenda shall be binding. Oral and other interpretations or clarifications, including those occurring at the pre-qualification meeting, site visits, tours, etc. will be without legal effect.

5.3. TERMS & CONDITIONS

The Respondents Proposal is a valid, firm, and irrevocable offer which McKinstry Essention, LLC. may accept within a minimum of 120 days from the Proposal's Due Date and Time as stated in the Schedule of Events listed above. The Proposal, if accepted, shall remain valid for the life of the contract.

The awarded Respondents are responsible to provide McKinstry Essention, LLC. a performance bond equal to or greater than the project contract and an insurance certificate in accordance with McKinstry Essention, LLC.'s current required limits of liability.

Under no circumstances shall McKinstry Essention, LLC. be responsible for any proposal preparation expenses, submission costs, or any other expenses, costs, or damages of whatever nature incurred as the result of a Respondents participation in this process.

Subcontractor will be selected based on Design Development drawings distributed at jobsite walk-thru. Subcontractor will submit a proposal based on these drawings and all information, attachments, and exhibits contained in the RFP.

5.4. INSURANCE REQUIREMENTS

The bidder acknowledges the insurance requirements attached to this RFP. Costs to increase current insurance requirement shall be covered in the subcontractors bid.

5.5. SCHEDULE

The bidder acknowledges that it has reviewed the anticipated project dates outlined in the RFP and agrees that it will complete the work of this proposal based on the dates provided. The bidder is to provide a construction schedule which is manpower loaded with the proposal. The start date is subject to change based on the notice to proceed from the owner. If the start date changes, the substantial completion date will change accordingly and within the agreed upon timeline. No additional costs nor an increased duration time will be applied to the project due to start date changes. Please use Microsoft Project Software (or equivalent) for your schedule.



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5.6 PAYMENT TERMS

McKinstry standard payment terms on all subcontracts are Net60 unless otherwise noted. Retainage will be held at 10% on all payments. Retainage will be paid out to all subs once the McKinstry receives our Final Completion for the project and have been paid our Retainage.



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6. ATTACHMENTS & EXHIBITS

6.1. ATTACHMENT A – RFP COVER PAGE & CHECKLIST

The Respondent must complete and submit this Attachment. This Attachment shall be the cover page for the Respondents Proposal. DO NOT MODIFY THE FORMAT OF ANY OF THE REQUIRED ATTACHMENTS. If the Proposal has modified Attachments or exceeds the maximum number of pages, the Respondent will be disqualified and deemed non-responsive.

Project Number:	204377-002
Project Name:	STEAMBOAT REGIONAL EPC PROJECT - SOLAR

The following documents are required for this proposal (and must be provided):

- | | |
|--------------|--|
| Attachment A | -Complete, sign, and staple as a cover page in your proposal |
| Attachment B | -VE Proposal Form |
| Attachment C | -Subcontractor Vendor List |
| Attachment D | -Changes in Scope |
| Attachment E | -References |
| Attachment F | -Prequalification Form |
| Attachment G | -Safety and Health |

By signing below, the Respondent acknowledges that they have carefully examined all RFP Documents and understands all instructions, requirements, specifications, terms and conditions; and that all statements, information, costs, and schedules submitted in response to the RFP are current, complete, true and accurate. The undersigned accordingly submits the following proposal.

Name of Company

Date

Printed Name of Firm Representative

Signature of Firm Representative

E-mail

Phone

Fax



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6.2. ATTACHMENT B – VALUE ADDED OR ENGINEERING

Subcontractors should identify any value-added options or differentials that they are proposing and include a short description of how it adds value to the project. Identify if the items will increase or decrease schedule, cost, or expectation. All cost and schedule impacts associated with these value-added options must NOT be included in your base cost/schedule. You may add/delete additional rows if necessary.

Item 1:	_____	
Impact:	Cost (\$) _____	Schedule (Days) _____
Item 2:	_____	
Impact:	Cost (\$) _____	Schedule (Days) _____
Item 3:	_____	
Impact:	Cost (\$) _____	Schedule (Days) _____
Item 4:	_____	
Impact:	Cost (\$) _____	Schedule (Days) _____
Item 5:	_____	
Impact:	Cost (\$) _____	Schedule (Days) _____



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6.3.ATTACHMENT C – SUBCONTRACTOR/VENDOR LIST

The Subcontractor shall furnish the following information for all Subcontractors and Material Suppliers proposed for this project. The list will show for each item, the manufacturer and/or supplier of all major work items that will be subcontracted. If no Subcontractor is listed, work will be performed by the Subcontractor. McKinstry reserves the right to purchase all or a part of the materials required to complete the project if it deems the cost of product or availability of product has an impact to the project budget or schedule.

The proposed Subcontractors and suppliers shall be established, reputable firms of recognized standing with a record of successful and satisfactory performance for the type of work proposed.

After the approval by McKinstry, the Subcontractor/vendor shall not be changed unless written approval of said change results in a revision of the contract price beneficial to McKinstry, or adequate written justification has been provided to McKinstry.

SUBCONTRACTOR

Description of Work Segment	Subcontractor
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

MATERIAL SUPPLIER

Description of Materials	Material Supplier
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Attach additional sheets if required.



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6.4.ATTACHMENT D – CHANGES IN THE WORK/SCOPE

McKinstry and/or Owner reserves the right to have any additional work done at a guaranteed best price, fixed negotiated price or separate cost-plus basis, which will include the Subcontractor’s profit and overhead. On a guarantee maximum price or cost-plus basis work, the Subcontractor will use 10% mark-up for overhead and 5% mark-up for profit.

Markup is the maximum total markup defined by McKinstry from the lowest tier Subcontractor up through the Subcontractor. This shall include all overhead and profit on labor and material as applies to every Subcontractor and/or supplier for a particular change in scope.

For purposes of this Contract, direct costs for Change Order work directed by McKinstry or Owner shall include direct labor, direct labor burden, associated labor taxes, material, equipment and Subcontract costs. It is expected that the Subcontractor will submit a GMAX pricing for a complete system and therefore no change orders are expected as it relates to the base design and installation requirement.

All other costs are considered overhead or profit (to include but not limited to small tools with an actual purchase price less than \$500.00, insurance and B&O Taxes) and shall be included in the percentage of mark-up as set forth in this contract.

Provide within the proposal a detailed list of labor rates (fully burdened) including job title, straight time rate, overtime rate and double time rate. Identify salaried personnel on this list.

Job Title	Straight Time	Over Time	Double Time	Swing Shift	Salary Y/N



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6.5.ATTACHMENT E – REFERENCES

Provide a list of three references that can provide information on the Subcontractor relating to projects with similar size and scope of work:

Reference 1:

Name: _____ Title: _____

Company/Organization: _____

Phone: _____ Email: _____

Reference 2:

Name: _____ Title: _____

Company/Organization: _____

Phone: _____ Email: _____

Reference 3:

Name: _____ Title: _____

Company/Organization: _____

Phone: _____ Email: _____



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6.6.ATTACHMENT F – PRE-QUALIFICATION APPLICATION

Please fill out the below document so we can perform a background and credit history check on your company

Name of Firm: _____
 Trade Name (DBA): _____
 Address Line 1: _____
 Address Line 2: _____
 City and State: _____
 Owner/Principle Names: _____
 Unified Business Id # _____ Website: _____
 Tax Id or Federal ID # /SS # _____ Duns # _____
 Qualifications to provide Service:
 (State) License # _____
 (State) License # _____

Experience/Project References: (**add attachment if necessary**)
 List **3** major projects over last **3** years demonstrating firm’s capability:
 (Include Name, location, Type of Contract, Name & contact person including phone number and email address, Original award amount and final cost of completed project)

Insurance & Bonding: Please attach a copy of your current general liability insurance certificate, bonding company/surety, and a current workers compensation policy.
 IF the company has been in business less than 1 year – please include bank reference: Name: _____
 Address: _____
 Contact Name: _____ Phone #: _____ Highest estimated total amount of potential **subcontract**: \$ _____



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Subcontractor must respond to and answer all of the questions below.

Subcontractor Qualification Section

1. Company Name:		Telephone:	Fax:
Street Address:		Mailing Address:	
2. Officers		Years With Company	
President:			
Vice President:			
Treasurer:			
3. How many years has your organization been in business under your present firm name?			
4. Under what other or former names has your firm operated?:			
5. Is your firm owned or controlled by any other organization? If yes, provide organization:			
6. Bonding Capacity and Rate:			
7. CO. or WY. Subcontractor ID #:			
8. Contact for Insurance Information:			
Title:	Telephone:	Fax:	
9. Insurance Carrier(s):			
Name	Type of Coverage	Limits	Telephone
10. Are you self insured for Worker's Compensation Insurance? Yes <input type="checkbox"/> No <input type="checkbox"/>			
11. Contact for Requesting Proposals:			
Title:	Telephone:	Fax:	
12. Form Completed By:			
Title:	Telephone:	Fax:	

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13. Form of Business: Sole Owner <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/>				
Date Founded: _____				
State of Incorporation if applicable: _____				
14. A. Do you normally employ? Average number of employees for last 3 years:	Union Personnel <input type="checkbox"/>	Non-Union Personnel <input type="checkbox"/>	Leased Personnel <input type="checkbox"/>	
	Year _____	Year _____	Year _____	
	Avg # _____	Avg # _____	Avg # _____	
15. Annual Dollar Volume for the Past Three Years:	Year _____	Year _____	Year _____	
	\$ _____	\$ _____	\$ _____	
16. Largest Job During the Last 3 Years: \$ _____		Avg. job in last 3 yrs: \$ _____		
17. Your Firm's Desired Project Size:		Maximum:	Minimum:	
18. Net Worth:	\$ _____			
19. Major jobs in progress:				
Customer/Location	Type of Work	Size \$	Customer Contact	Telephone
20. Major jobs completed in the past three years:				
Customer/Location	Type of Work	Size \$	Customer Contact	Telephone
21. Are there any judgments, claims or suits pending or outstanding against your company? If yes, please attach details. Yes <input type="checkbox"/> No <input type="checkbox"/>				



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22. Are you now or have you ever been involved in any bankruptcy or reorganization proceedings?		
If yes, please attach details	Yes <input type="checkbox"/>	No <input type="checkbox"/>
23. Has your firm ever had a claim against a bond on which your firm stood as principle?		
If yes, please attach details	Yes <input type="checkbox"/>	No <input type="checkbox"/>
24. Has your firm ever been denied a bond?		
If yes, please attach details	Yes <input type="checkbox"/>	No <input type="checkbox"/>



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6.7. ATTACHMENT G – SAFETY & HEALTH PERFORMANCE

List your Worker’s Compensation Interstate Experience Modification Rate for the last three years:

Current, Rate: _____

20_____, Rate: _____

20_____, Rate: _____

Who is responsible for safety at your company? _____

What is their Title? _____

Does your company have a written safety program? _____

Does your company have a written drug and alcohol policy? _____

Report the number of manhours, injuries and illnesses for the last three years. (Use your OSHA 200 Log as a source of information, but please do not attach a copy).

	Current Year	20____	20____
Employee (manhours) worked			
Number of recordable accidents			
Number of lost workday cases			
Number of lost workdays			
Number of restricted workday cases			
Number of restricted workdays			
Number of cases with medical attention only			
Number of fatalities			

Do you have a drug testing program? Yes ___ No ___

If not, do you plan to have one? Yes ___ No ___

How often do you have Site Safety Meetings?

Weekly _____ Monthly _____ Other (Specify) _____

Do they include all of the employees? _____

All Subcontractors? _____

How often do you conduct project/site safety inspections/audits?

Weekly _____ Monthly _____ Other (Specify) _____

Who conducts the inspections/audits?

Name _____ Title _____

Do you have a written safety program? Yes ___ No ___

When was the last time it was updated to meet current standards? _____



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Do you have a documented orientation program for:

New Hires? Yes _____ No _____
Foremen? Yes _____ No _____
Supervisors? Yes _____ No _____
Subcontractors? Yes _____ No _____

Have you received any regulatory (EPA, OSHA, etc.) citations in the last three years? _____
If yes, please attach copies of report(s).

Explain other special features and historical data relating to your safety program.



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6.1.ATTACHMENT H – SCHEDULE & CREW INFORMATION

Please provide the estimated schedule duration:

For a multi-site portfolio, an avg estimate per site OR a table containing each site and the number of weeks to construct can be provided.

Please explain if multiple crews are available (projects built concurrently) or if only one crew is available (projects built sequentially):

If projects can be built concurrently, identify which ones and how many.

Please provide the estimated number of crew members: _____

Please provide the total person hours estimated to construct this project(s): _____

Please provide the average ratio of Laborers to Journeyman Electricians: _____

Please provide the number of crew members with a NABCEP Certified PV Installer Certification: _____



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6.2.EXHIBIT 1 – PROJECT BACKGROUND DOCUMENTS

- Attached are PDF drawings of the design documents
- Drawings will be available at site meeting
- Drawings available for pick up at address:
- Plans available for download at website URL
- Drawings were e-mailed to Subcontractor prior to site visit on: _____
- Other: _____

Attached Drawings and Materials:

Subcontractor shall review and incorporate the following project bid drawing documents in their proposal.

Site ID (#)	Document	
Exhibit 1a	Solar design site plan	Bidder should base their bid response based on this conceptual design drawing.
Exhibit 1b	Solar design one-line diagram	Bidder should base their bid response based on this conceptual design drawing.
Exhibit 1c	Helioscope Model	For reference.
Exhibit 2	McKinstry Sample Subcontract & Standards	For reference.
Exhibit 3	McKinstry Submittal Requirements	For reference.
Exhibit 4	Insurance Requirements	For reference.
URL for Drawings and Exhibits access: https://www.dropbox.com/sh/ong0sizr08kxwfg/AAA5vxbSFUDt6v1GbszP7x5Ja?dl=0		