



State of Utah

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Division of Facilities Construction and Management

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Addendum No. 1

Date: June 24, 2015
To: Design/Build Teams
From: Bianca Shama – Project Manager
Reference: Roof-Mounted Solar Photovoltaic System – Moab Regional Center
Division of Facilities Construction and Management – Moab, Utah
DFCM Project No. 14321300
Subject: **Addendum No. 1**

Pages	Addendum Cover Sheet	2 pages
	<u>Mandatory Meeting Presentation Document</u>	<u>5 pages</u>
	Total	7 pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

1.1 SCHEDULE CHANGES: There are no Project Schedule changes.

1.2 GENERAL ITEMS: Questions/Answers

1.2.1 Question: Can the presentation from the June 17, 2015 Mandatory Meeting be posted?
Answer: Attached.

1.2.2 Question: What is the clearance requirement for the micro-wave dish (erroneously marked 'satellite dish' in various drawings in the RFP and presentation)?
Answer: There needs to be 3' clearance around the dish for access. There needs to be a clear line of sight pathway from the dish to the space in between the two trees on the north-east side of the building. The array cannot be higher than 3' in height on either side of this pathway. Even a small deviation from the dish's current location will cause significant effect on the receiving dish (many miles away); therefore, if the dish has been accidentally moved during construction this needs to be reported immediately. The emergency services person (Loren Lamoreaux) needs to be included in the construction kick-off meeting.

- 1.2.3 Question: Have new vents or equipment been installed as part of the reroofing project?
Answer: One small additional box has been placed on the roof, but for the purpose of bidding assume no changes have taken place with mechanical equipment.
- 1.2.4 Question: Can there be roof access for measurements after the vendor walk-through meeting?
Answer: No, not until vendor is the winning bidder.
- 1.2.5 Question: What happens if the design proposal in our Response document interferes with equipment on the roof?
Answer: Minor, reasonable design changes are allowable after the vendor selection process.
- 1.2.6 Question: Can we take a look at the switch gear box next to the meter?
Answer: No. Maintenance Staff will ask RMP to arrange for the box to be opened and photographs will be posted as a separate Addendum if possible. Please check the DFCM website periodically for updates on this and other matters.
- 1.2.7 Question: Does the local Fire Marshal need to be involved in the permitting process?
Answer: Yes
- 1.2.8 Question: What is the new roofing material?
Answer: PVC
- 1.2.9 Question: Who was the roofing contractor?
Answer: The roofing contractor is North Face Roofing. Craig Peters is the contact for them. His number is 801-455-8492.
- 1.2.10 Question: Were you able to determine the interconnection service voltage and location?
Answer: Please refer to the RFP document for details about the interconnection service voltage. The interconnect location can be in the main panel inside the building or outside the building close to the RMP meter. Determining the best location is the responsibility of the vendor.
- 1.2.11 Question: Can you provide any and all roof assembly data?
Answer: Please refer to the RFP and its Exhibits for information that is currently available.



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES
Division of Facilities Construction and Management




Request for Proposals for Design/Build Services

SINGLE-STAGE COMPETITION June 17, 2015

ROOF MOUNTED SOLAR PHOTOVOLTAIC FACILITY
At the State Regional Facility in Moab, Utah

DFCM Project No. 14321300 Maud de Bel
BacGen Technologies, Inc





Contents

- » Admin Announcements
- » Goals and Deliverables
- » Cost Proposal
- » Location Specific Details





Schedule

Event	Day	Date	Time	Place
Mandatory Pre-Proposal Site Meeting	Wednesday	June 17, 2015	1:00 PM	Moab Regional Center, 1165 S Highway 191, Moab, UT
Last Day to Submit Questions	Monday	June 22, 2015	4:00 PM	Bianca Shama- DFCM bshama@utah.gov
Addendum Issued	Wednesday	June 24, 2015	3:00 PM	http://dfcm.utah.gov (DFCM QUICK LINKS "current projects")



Schedule

Response Document	Tuesday	July 7, 2015	12:00 noon	DFCM 4110 State Office Bldg SLC, UT
Short listing (if necessary)	Thursday	July 9, 2015	2:00 PM	http://dfcm.utah.gov (DFCM QUICK LINKS "current projects")
Interviews	Wednesday	July 15, 2015	TBA	TBA
Announcement	Friday	July 17, 2015	4:00 PM	http://dfcm.utah.gov (DFCM QUICK LINKS "current projects")
Substantial Completion Date		July 31, 2016		



Goals

- 90 kW_{DC} roof mounted solar PV system
- ad-alternative 80 kW_{DC}
- Design – Build (no PPA)
- “Best Value” (DC and AC Watt installed, annual production)
- “Investment Grade”
- Completion Date July 31, 2016 (USIP)
- Workmanship Warranty – Minimum 10 years



Deliverables

- Engineering / Design Plans
- Structural Analysis
- Roof Warranty
- DFCM Approval
- Permitting
- Interconnect / Net Metering
- Purchasing
- Construction
- Inspection
- Monitoring System
- Manuals including warranty docs
- Training
- Code Compliant
- UL Certified Materials
- As Specified in RFP



Deliverables



- Modules: 25 year output performance warranty
- Inverter: min 10-year nationwide warranty, investment grade, 95% efficiency, micro or DC-DC optimizers allowed
- Racking: no ballasted systems; 12” leading edge



Code Compliance

- » 2014 NEC Adopted from July 1, 2015
- » Section 15.09.7 .2 of the 2012 IBC was deleted in the 2014 legislative session (effective for the Utah unified building code), meaning vendors are exempted from the fire classification of PV **systems** (under the testing regime of UL 2703) for systems permitted prior to July 1, 2016



Cost Proposal Form

	kW _{DC} Installed	Estimated Annual kWh Output	Total System Output after 25 Years (kWh)	Total Build Price
Moab Regional Center (90 kW _{DC})				
Moab Regional Center (80 kW _{DC})				

Costs: **90 kW_{DC}** **80 kW_{DC} (Alternate)**
 Materials \$ _____ \$ _____
 Labor \$ _____ \$ _____
 Total \$ _____ \$ _____

- ### Value Based Selection:
- » Price Proposal Form not Visible to Interview Committee until after Interview
 - » Points for Price Proposal Proportionally Distributed between Highest and Lowest Bidder (and In-Between)
 - » DC Size as well as Annual Production Taken into Account to Promote Maximizing DC Size as Well as Industry Standard Materials & Design

- ### Please Note:
- » Debarment Form
 - » Subcontractor List
 - » Performance Bond / Payment Bond
 - » Standard Contract Conditions
 - » DFCM Administrative Fee \$0.17 per Watt installed
 - » Funding: State and USIP (no Prevailing Wage)

- ### New Roof
- » New Roof Complete 'end of June'
 - » Inspection Before and After Solar Install Required
 - » Maintain Roof Warranty
 - » "North Face Roofing" / Craig Peters (801-455-8492)

USIP:

- » Payable to DFCM
- » Completion 18 months from April 1, 2015
- » Please Start Interconnect Application Early
- » Please Note Very Specific Production Metering Spec
- » Effective Grounding!!!!!!!!!!!!

Grounding Bank System Design Requirements

Grounding bank specifications are provided as service to our customers. Any system meeting IEEE and Rocky Mountain Power requirements to achieve effective grounding is acceptable and will be received and reviewed.

In addition to IEEE requirements to achieve effective grounding, the X/R ratio shall be greater to or equal to 4 (four). The specifications supplied, call for copper windings in the grounding transformer which typically achieve this. If the selected transformer does not achieve this value, a reactance shall be inserted in each phase or in the neutral between the neutral of the transformer and the neutral of the system.

It is acceptable, if you choose, to use three single phase transformers wired into a zig-zag configuration.

A neutral current path meeting the IEEE definition for effective grounding must exist, through all customer owned equipment including transformers, from the distribution transformer to the effective grounding equipment. Special care shall be accessed in evaluating the system if a delta configured transformer is used in any part of the circuit.

Phase and ground pickup level are specified.

When either the phase pickup or ground pickup (neutral current through the grounding transformer) current levels are reached, both the generation and the grounding bank must open. Breakers can be sized according to NEC requirements. The generation cannot be closed or remain closed if the grounding transformer is open or opens. The grounding bank cannot be closed unless all three phases are present.

Evaluation

- Design and Components (30 points)
- Schedule (10 points)
- Past Performance (10 points)
- Strength of the Team (10 points)
- Project Management (10 points)
- Cost (30 points)

TOTAL 100 POINTS

Project Details

Moab Regional Center
Roof Mount (flat roof, EPDM/ TPO)
1140 S Highway 191
Utility: Rocky Mountain Power
Acc# 92233026-028 0
Meter # 1286569 schedule 6 Annual consumption 157,467 kWh/y
Voltage: 3 phase (120/ 208 Y) Main panel (600 amps, 3 phase) is on ground floor.
Mechanical units 5'5" Note tree on northeast side and south side of building

