July 11, 2020

RE: ADDENDUM NO. 3 TO REQUEST FOR PROPOSALS (RFP) PACKAGE

RFP 21028
AK Intertie Snow Load Monitoring System

EMAIL TO: All RFP recipients on record.

The RFP Package is hereby clarified or changed as follows:

QUESTION AND ANSWERS

Question:
1. If there are times where stretches of trail do not have snow for normal snow machine use, are there any restrictions on the types of vehicles that can be used in the intertie right-of-way?

Answer:
   a) The ROW is maintained by Matanuska Electric Association (MEA). MEA has indicated they have no particular requirements regarding contractor vehicle specifications in the ROW.
   b) The contractor must maintain compliance with all local, regional, state, and federal laws. In particular, the Department of Natural Resources and Fish and Game permit requirements shall be followed.

Question:
2. Are there other public access trails that can be used to gain access to sections of the intertie, are there any route restrictions by AEA?

Answer:
   AEA has no route restrictions.

Question:
3. For the section of the AK Intertie north of the Talkeetna River, if there are public access routes that can be used for safer access, is this an option?

Answer:
   There are no restrictions on access outside of compliance with all applicable laws.
Question:
4. Are there any required permits, for access or other issues, that the contractor is expected to get?

Answer:
The contractor is required to obtain applicable permits from regulatory agencies. Neither AEA nor MEA have permit requirements.

Question:
5. Are there any specific licenses required by the contractor to have?

Answer:
The contractor is required to ensure its employees are properly trained, equipped, certified and licensed for the task required. For example, weather reporting requires computer and communication skills, but does not require specialized licensing. Completing a snow load patrol requires specialized skills in backcountry travel and hazards, and snow machine and/or other off-road vehicle experience. Climbing a transmission tower to maintain PV panels, strain gauges, or other tower-mounted equipment will require coordination with Matanuska Electric Association, a lineman certificate of fitness, and other safety measures.

Question:
6. What type of SLMS server is located at the ML&P headquarters?

Answer:
Dell Services

Question:
7. What software programs are used to support the SLMS on the server at ML&P headquarters?

Answer:
Wonderware Intouch HMI software

Question:
8. Are there any specific software programs required for the contractor to have?

Answer:
Business software.

Question:
9. For SLMS server malfunctions and call-outs to either the ML&P headquarters or dispatch center, what is the required response time?

Answer:
Within 3-5 days unless there are unusual circumstances.

Question:
10. What on-site equipment is located at the ML&P dispatch center?

Answer:
A Dell server with the Supervisory Control and Data Acquisition (SCADA) Human Machine Interface (HMI).
Question:
11. What type of equipment is located at each tower that is part of the SLMS?

Answer:
   a) Six deep cycle batteries
   b) Battery cabinet
   c) PV panels mounted on the transmission tower
   d) Charge controller
   e) Strain gauges
   f) Inclinometer
   g) Modem
   h) Electrical conduit
   i) Antenna
   j) Dataloggers
   k) Battery temperature sensor

Question:
12. What type of battery systems (type (manufacturer, model number) and quantity) are located at each tower that is part of the SLMS?

Answer:
   All of the batteries are deep cycle, valve-regulated, lead acid. Most of them are Sunlyte 12-5000X. However, since that battery is no longer available, we have started installing MK Battery E27-SLD-G. See cut sheet attached.

Question:
13. Are the battery conditions (voltage, temperature, and current use) monitored as part of the SLMS?

Answer:
   Yes

Question:
14. What is the latitude and longitude of Tower 5 and Tower 69?

Answer:
   Tower #5: 61deg46'37"N, 150deg1'24"W
   Tower #69: 61deg59'32"N, 150deg, 0', 58"W

Question:
15. During the automatic snow patrols, is the monitored section start at Tower 5, or Tower 79?

Answer:
   Per p.14/30 of the RFP, the patrols start at Tower 5.
Question:
16. In the requirements for the automatic snow patrol (see function #3), it discusses taking photographs at "each lower station". What defines the lower stations?

Answer:
The lower station is the base of the tower.

Question:
17. For the automatic snow patrols, when defining 2" or more of snow to initiate a field response, what time period is used (such as 2" or more of snow over a 24-hour period)?

Answer:
The time period is 24 hours.

Question:
18. For the automatic snow patrols, some snow events (storms) may last several days or longer. Are patrols to be made during active snow storms, or made once when they are over?

Answer:
Automatic snow patrols are to be conducted when 2” or more of new snow is recorded in Talkeetna. If conditions are too hazardous to conduct the patrol, the contractor shall inform ML&P and AEA’s project manager.

Question:
19. There are some differences in the listing of towers that are part of the SLMS in the RFP. In comparing the marked-up USGS maps and the Snow Conditions Report, and the RFP text, there are some differences

Answer:
Tower #109 should be added to the Snow Conditions Report list for a total of 24 towers. The maps show towers that don’t have snow load monitoring systems. Here is a complete list of the towers that have monitoring equipment:


a. the RFP in Task3 (page14) indicates 24 locations are shown on the attached maps (A-C). The maps show labeling for 18 towers and 1 substation (Stevens).

Answer:
Please refer to p.16 of the RFP: 1. Attachment A – Maps of the Tower Locations (The attached topo maps depict the locations of SLMS towers #79 – 231. The remaining SLMS towers, #5 – 69, are located along the Intertie ROW between Willow and Talkeetna.

b. the RFP on page 16, in the Attachments section indicates Towers 5 through 69 (?) are located in the Intertie ROW between Willow and Talkeetna. The listing of sites on the
Snow Conditions report has a total of 23 towers listed. It does not list three towers that do show up on the marked-up topo maps (Towers 92, 109 and 115)

Answer:
See responses above. Towers #92 and #115 do not have snow load monitoring equipment and are not included in the scope of this solicitation.

c. is there an available listing of the towers that are part of the SLMS, with latitude and longitude? Or approximate locations on a map?

Answer:
The RFP included maps showing the locations of towers #79-231. Towers #5-69 are located along the Intertie ROW between Willow Fishhook Road and Caswell Lake Drive.

Question:
20. In Task 3 automatic patrols, function 2 (page 14), it mentions a data sheet (Attachment D). Is this the same as the Snow Conditions Report labeled as Attachment B?

Answer:
Yes

Question:
21. Is there a standard method used for measuring snow depth?

Answer:
A tape measure should work fine.

Question:
22. Is there a standard method used for measuring snow density (which is not shown on the snow conditions report)?

Answer:
The Snow Conditions Report includes the volume of snow before and after melting. These measurements will allow ML&P to calculate snow density.

Question:
23. The electric utilities, MEA and MLP, only allow certificated linemen to perform line inspections when needed as directed by the utility. From a safety perspective, if a line is down or sagging close to the ground, a person with specific electrical hazard training will understand the precautions to take. Does this project require proper state licensing for this work?

Answer:
The contractor is required to ensure its employees are properly trained, equipped, certified and licensed for the task required. For example, weather reporting requires computer and communication skills, but does not require specialized licensing. Completing a snow load patrol requires specialized skills in backcountry travel and hazards, and snow machine and/or other off-road vehicle experience. Climbing a transmission tower to maintain PV panels, strain gauges, or other tower-mounted equipment will require coordination with Matanuska Electric Association, a lineman certificate of fitness, and other safety measures.
All other terms and conditions remain the same.

END OF ADDENDUM

We appreciate your participation in this solicitation.

Sincerely,

Lois Lemus,
Contracting Officer
907-771-3909
llemus@aidea.org
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Nominal Voltage (V)</td>
<td>12V</td>
</tr>
<tr>
<td>Capacity at C/100</td>
<td>99 Ah</td>
</tr>
<tr>
<td>Capacity at C/20</td>
<td>88 Ah</td>
</tr>
<tr>
<td>Capacity at C/5</td>
<td>72 Ah</td>
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<tr>
<td>Weight</td>
<td>62 lbs. (28 kg)</td>
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<tr>
<td>Plate Alloy</td>
<td>Lead Calcium</td>
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<tr>
<td>Posts</td>
<td>Forged Terminals &amp; Bushings</td>
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<tr>
<td>Container/Cover</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>-76°F (-60°C) - 140°F (60°C)</td>
</tr>
<tr>
<td>Charge Voltage @ 77°F (25°C)</td>
<td>13.8 - 14.6 volts</td>
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<tr>
<td>Cycle</td>
<td>13.4 - 13.6 volts</td>
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<tr>
<td>Float</td>
<td>Self-sealing</td>
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<tr>
<td>Electrolyte</td>
<td>Sulfuric acid thixotropic gel</td>
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<tr>
<td>Terminal</td>
<td>B (T876)</td>
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- Rated non-spillable by ICAO, IATA and DOT
- Made in the U.S.A. by East Penn Manufacturing Co, Inc.

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Inches (mm)</th>
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<tr>
<td>Length</td>
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<tr>
<td>Width</td>
<td>6.56 (167 mm)</td>
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<tr>
<td>Height</td>
<td>9.33 (237 mm)</td>
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<tr>
<td>Including terminal</td>
<td>11.03 (281 mm)</td>
</tr>
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</table>

**Gel Cycle Life vs Depth of Discharge at +25°C (77°F)**

Based on BCI 2-hour Capacity

**MK Battery**

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