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JUSTIFICATION AND APPROVAL

Justification for Other Than Full and Open Competition (FAR 6.3)

1. Contracting Agency and Activity. The Department of the Interior, United States Geological Survey, OAG Sacramento plans to contract by means other than full and open competition. This document sets forth the justification and approval for use of one of the exceptions to full and open competition allowed under the Competition in Contracting Act (CICA) of 1984.

2. Nature of Action Being Approved. This action involves the licensing of two-dimensional seismic reflection data from the Arctic Alaska Petroleum Province. The proposed awardee is SEI (Seismic Exchange Inc.) of Denver, Colorado.

3. Description of Supplies or Services. The Eastern Energy Resources Science Center, Alaska Petroleum Systems project requires the acquisition of digital, two-dimensional (2D), seismic reflection data from the Arctic Alaska Petroleum Province, which includes the Alaska North Slope and adjacent offshore areas. These seismic data are required to comply with Secretarial Order 3352 (SO-3352, signed May 31, 2017), which directs the USGS to conduct on an accelerated schedule updated assessments of undiscovered, conventionally recoverable oil and gas resources of the Arctic Alaska Petroleum Province, with an emphasis on Federal lands. The seismic data must be located onshore between 146.0 and 149.0 degrees west longitude. Data collected later than 1988 must be of not less than 96 fold geometry and data collected prior to 1988 must be of not less than 24 fold geometry. All data must have been collected with a vibroseis energy source and must be pre-stack time migrated data in sgy format, and complete navigation data must be provided.

4. Estimated Dollar Value. _____

5. Statutory Authority. The proposed action may be awarded without full and open competition under 41 U.S.C. 253(a)(1) as implemented in FAR 6.302-1.

6. Rationale Supporting Use of Citation in No. 5.

- a. SEI is the only vendor that offers 2D seismic data in specific locations needed for the USGS to conduct an assessment as directed by SO-3352.
- b. The USGS has conducted a search of all companies that offer licenses for 2D seismic reflection data in the areas in which assessments will be conducted as directed by SO-3352. Using the parameters described in No. 7 (below) as selection criteria, the data offered for licensing by SEI in Alaska State lands of the Alaska North Slope between 146.0 and 149.0 degrees west longitude are unique. No other company offers data that matches the needed data.

7. Other Information. An explanation of seismic reflection data and the licensing of such data for use is necessary to provide background for this procurement.

Seismic reflection data: The objective of this procurement is to obtain a *license* to *speculative, multi-client (non-exclusive), 2-D* digital seismic reflection data. USGS requires *post-stack time migrated (PSTM)* data in *sgy* format to facilitate loading into digital workstations and integrating with previously licensed data already resident in our workstations.

Companies that specialize in the collection of seismic data commonly identify regions of interest to the oil industry and design *speculative* seismic surveys. The seismic company bears the entire cost of designing, collecting, processing, and marketing the seismic data. Seismic surveys may be *2-D*, in which seismic data are collected along discrete lines, or may be 3-D data, in which seismic data are collected as a volume across a broad area. Only 2-D data are considered in this procurement because the cost of 3-D data is prohibitively high.


After data are collected, they are made available for a fee to any organization that has interest in the region, and the data can be acquired either as individual seismic lines or as an entire set of seismic lines. The right to use the data is transferred as a *license*, and the license fee typically is set as a per-mile (or per-kilometer) charge. *Speculative* seismic data are considered *multi-client*, or *non-exclusive*, because multiple organizations may purchase a license to the same data. However, the data are considered confidential and may not be shared with parties outside the licensing organization.

Because the seismic data collected by a specific company are exclusive to that company, no two companies offer for licensing the same data. Therefore, a number of parameters must be considered in selecting seismic data for licensing, including:

- (i) Location – the seismic data must be located in an area pertinent to the work to be conducted.
- (ii) Line orientation – the seismic data must be oriented in specific geographic coordinates to perform the work to be conducted.
- (iii) Line length – longer continuous seismic lines typically are more useful for mapping subsurface rock layers than shorter seismic lines.
- (iv) Vintage – typically newer data is better than older data because of incremental improvements that have been made in data collection and processing.
- (v) Energy source – seismic data are collected by introducing sound waves into the earth using vibroseis (large vehicles with hydraulic pads that vibrate), compressed air (when data are collected from water surface), or dynamite; the energy source influences the quality of data obtained.
- (vi) Fold – this is a measure of the number of seismic receivers (instruments that collect the sound waves that are reflected off of rock layers and return to the earth's surface) used to produce a single seismic trace in the data; larger fold data typically are better quality.
- (vii) Reprocessed data – the quality of older seismic data commonly are improved by “reprocessing,” which involves the application of advanced computer algorithms to improve the resolution of the data.

13. Approvals:


Recommend approval:



Joseph Riccomini
Contracting Officer

18 June 2018
Date


Concur:



Sasha L. Klingler
Contracting Officer

18 June 2018
Date


Concur:



Nancy V. Miller
Chief, OAG-Sacramento

18 June 18
Date

Approved:



Jennifer Kelley
Bureau Competition Advocate

Date