
TENDER DOCUMENT - ANNEX 1

Acquisition of 2D seismic data on the Norwegian Continental Shelf, 2016

Ref no 2016/268



**NORWEGIAN PETROLEUM
DIRECTORATE**

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1 Seismic acquisition programme

The NPD acquisition programme planned for 2016 is as follows:

In the 2012, 2013 and 2014 seasons, NPD did acquire substantial volumes of 2D seismic data in the Barents Sea Northeast and North. Further to this, NPD now plans to acquire more seismic data in these waters.

The 2016 2D seismic survey has a scope of approximately 6.000 Km (firm) plus up to 2.500 Km (contigent / optional). NPD will revert with details of the specific survey areas as soon as possible after the decision has been made in this respect.

Due to the nature of fishing activities, changes to the ice-edge and/or changes to the survey programme – the schedule and scope may be modified / changed during the cruise - in agreement with NPD and the Contractor.

The line length (average) is anticipated to range between 100 Km and 300 Km. (See Section 7.2).

2 Project timing and funding

2.1 Project timing

The timing of the seismic acquisition programme is critical due to weather conditions and fishing activities. NPD therefore prefers that the acquisition is done within the time period from late July/early August to late September /early October. The suppliers must provide an account of vessel availability. The acquisition is under all circumstances conditional upon NPD and the supplier reaching a mutual agreement concerning the time period for the acquisition.

2.2 Project funding

This project is conditional upon funding from the Norwegian Government. At this point in time, we cannot be sure to have all funds secured to cover the full data volume as indicated in Section 1.

The first 6.000 Km of 2D data acquisition should be considered as firm work. The next 2.500 Km should be considered optional work. The suppliers must provide quotations reflecting data volumes (Scope of Work) of 6.000 Km + contigent / optional - up to 2.500 Km 2D (table below to be completed)

Use of the 'option' depends of necessary additional funding from the Norwegian Government. NPD assumes that the question of funding will be clarified and resolved before the signing of the contract.

As a consequence of the above funding reservation, we require the bid to be structured accordingly:

Price table 1 (reflecting Section 2.2, above)

Maximum 2D Data Volume (Km):		First 6.000 Km "Firm" and next up to 2.500 Km "Optional"
6 000	2 500	
Price (NOK) per Km		

3 Technical specifications

3.1 Data acquisition

The acquisition of the 2D seismic streamer data should be performed with the highest quality industry equipment and geometry.

As we wish to survey in northern waters - we will require the bidder to provide an accurate description of the survey vessel's Ice Classification and the vessel's ability to survey in such northern waters. (This applies both to the Seismic Vessel as well as eventual Support Vessels).

Bidders are required to provide documentation with a proper description and particulars of the geophysical benefits of their streamer system, as well as a description of other attributes and benefits of such system. In particular, towing and towing depth, hereby weather (productivity) impact should be described.

Survey parameters:

Shot (pop) interval:	25 m (depending on selected recording length)
Source depth:	6.0 m or 7.0 m
Streamer active length:	8 Km
Streamer depth:	7.0 m (nominal) – 9.0 m (nominal) / and dependent on pre-survey geophysical evaluation & streamer technology
Record length:	9 - 11 Sec. (to be evaluated)
Sampling rate:	2 ms

Available options for the acquisition geometry and source configurations shall be specified. The bid should contain a detailed technical description of proposed equipment.

In addition, a table of possible pop intervals referenced to recording length(s) and vessel production speed shall be included.

3.2 Navigation specifications

The bidder should make use of an industry standard navigation system.

The bidder shall specify in detail the navigation system which will be applied for the 2D seismic acquisition.

The bidder is responsible for navigation supply. Navigation data shall be processed by bidder in order to produce final positions for each source and trace.

The centre of sources shall at all times be determined better than +/- 5 m. Receivers shall at all times be determined better than +/- 10 m. Both figures shall refer to a confidence level of 95%.

3.3 Additional services

Provision of one Support/Scout/Work- boat for the planned survey shall be quoted or included in the prices specified in Section 7 in this document.

Provision of an additional Support/Scout/Work- boat shall be quoted as an additional cost item.

NPD may consider other geophysical measurements to be made simultaneously. The bidder is requested to specify arrangements and costs for inclusion of the following additional geophysical equipment:

- Gravity field data
- Magnetic field data

4 Data quality

The bidder shall provide Quality Control during the acquisition of the data.

For the seismic acquisition programme, vessels that are constructed, equipped and operated in accordance with relevant requirements from the competent Authorities in the country of registration and from a first class international classification bureau approved by IACS, shall be used.

The bidder shall describe his routines for quality control of the data, using acceptable, industry standards such as "Procedures and Specifications for Field Operations and Data Processing" as an appendix to the response to tender.

The bidder shall:

- Give details of the vessel to be used and all its maritime equipment (sources, streamers, navigation and positioning system). The vessel and the equipment should satisfy the highest industry standards.
- Give a description of the vessel and relevant equipment for carrying out the assignment and copies of relevant certifications.

The bidder shall describe his seismic QC system for recording, monitoring and analysis of seismic and navigation data.

All equipment, instruments and other materials supplied by the bidder are subject to approval by NPD before commencement of the survey acquisition.

A representative of NPD shall be onboard the survey vessel at all times for quality control. This does not, however, exempt the bidder from his responsibility of delivering all products to the specified acceptable standard / quality. In addition, a fisheries representative will also be required to be onboard (this cost will be covered by NPD), and other NPD personnel (if decided by NPD) will be onboard during the acquisition.

5 Seismic data processing

The NPD will tender the following Data Processing in a separate procurement.

6 Data delivery and final products

6.1 General

Raw 2D seismic data:

The bidder shall deliver raw 2D acquired seismic data on 3592 tapes as standard SEG-D. All navigation data shall be delivered on a suitable medium in standard UKOOA P1&P2 format.

All raw seismic data and all navigation data shall with no undue delay, and in any case no later than three weeks after survey completion, be shipped to NPD offices in Stavanger.

6.2 Data delivery

The following list of data shall be delivered to NPD:

- Two copies of seismic field data on 3592 tapes in SEG-D format.
- Navigation data, UKOOA P2/94 and P1/90 on 3592 tapes.
- TOC files including tape-, acquisition- and FFID logs on CD-ROM.
- CMP map on CD-ROM and one paper copy.

6.3 Reporting

The following reports shall be delivered to NPD:

- Observers' Logs, Navigation Logs and Tape Logs on CD-ROM
- Onboard Seismic Processing QC and Calibration Report (delivered on completion of fieldwork) on CD-ROM
- Final acquisition reports on CD-ROM and one paper copy.

7 Costs

7.1 General conditions

- All costs shall be stated in NOK.
- All conventional navigation costs, surface positioning and in-sea positioning shall be included in the acquisition cost.
- Costs related to equipment performance and acceptance tests shall be covered by the bidder.
- The bidder shall allow adequate time, at no cost to NPD, for checkout by NPD of all systems (including seismic, navigation/positioning equipment) under operating conditions, i.e. with streamer(s) and energy sources deployed and test shots recorded. A formal start of operations is conditional upon a satisfactory checkout.

7.2 Production rate

Production rates shall be stated in four (4) ways – in addition to Price table 1, cf. section 2.2 "Project funding".

Kilometer rates:

1. Kilometer rate using average line length of 100 Kilometers
2. Kilometer rate using average line length of 300 Kilometers

Daily production rates (24 hours) when doing seismic data acquisition pop-to-pop plus nominal line change time up to 3.0 hours calculated for an 8 Km configuration:

- Daily production rate using average line length of 100 Kilometers
- Daily production rate using average line length of 300 Kilometers

All four rates must be quoted - and linear interpolation to be used to determine final rate. NPD will reserve its right to choose whichever price model (Kilometer rate or Daily production rate) to be used for this contract. The following costs shall be included in all rates stated:

- Costs for geophysical survey planning
- Costs for logistical survey planning
- All the specified processing (including post-processing of navigation data to UKOOA P1/90 format), end products and consumables (tapes etc)

7.3 Standby rate

Standby rate shall be stated as rate per day (24 hours).

Standby time is classified as time spent on:

- Waiting on weather
- Waiting due to seismic interference or other circumstances (e.g. fishing activity)
- Waiting due to marine conditions preventing or delaying the seismic operation to go-head, outside control of the contractor – also including time spent on port calls and other steaming on specific request by company
- Waiting due to Force Majeure
- Non-operational periods due to instructions received from the Company to delay the Work

The breakdown of timing regarding production and standby shall, on a daily basis, be agreed between the Party Chief and the NPD representative onboard. The bidder's breakdown standards on this issue must be part of the tender documentation.

Downtime due to technical breakdown and Contractor's Crew Change must be covered by the bidder.

7.4 Transit rate

Transit rate classified as steaming and transit to and from survey areas.

Transit rate shall be stated as rate per hour.

7.5 Mobilization and demobilization

The exact position(s) for the survey is to be decided and Contractor shall suggest alternative harbours for mobilization and demobilization for the Barents Sea. The costs shall be stated as Lump Sums.

The mobilization period will be regarded as finished when the equivalent of one prime line in each survey direction has been successfully recorded, and all equipment work correctly as far as it can be reasonably demonstrated to the satisfaction of the NPD's representative onboard. The production time will then be counted from the first accepted shot point on the first accepted line.

7.6 Seismic data processing

N/A cf. section 5 "Seismic data processing".

7.7 Early termination fee

See annex 2 – General Conditions of Contract.

8 Contract conditions

NPD will use a revised version of the NPD 2010 standard contract - which again is based on IAGC standard contract conditions. These terms and conditions are enclosed to the tender document in annex 2 – 5.

The bidder shall complete schedules B- G, listed in annex 3, as appropriate.

Minor reservations with reference to specific contract clauses must be quoted with alternatives, cf. tender document section 6.2 Disposition of tender, "DOC05 – Contractual"

This type of procedure does not allow for contract negotiations.

Significant reservations by the bidder regarding the terms stipulated in this bidding invitation, in the competition specifications or the contractual terms may affect his chances of being awarded the contract.

We specially refer to the Norwegian public procurement regulations of 7th of April 2006 no 402 § 20-13 d. According to this, an offer shall be rejected if the bidder has made significant reservations to the contract conditions.

The contract (GCC) contains a prohibition against social dumping, cf. clause 4.1.8. NPD is obliged by law to use this clause in our contracts. Reservations against this clause will be regarded as significant reservations and will lead to rejection of the bid.