EXPRESSION OF INTEREST (EOI) NO. EOI/GPHY/G/001/2022-23 DATED 01.04.2023.

FOR

PROCUREMENT OF ONE (1) NO. OF NEW GENERATION, FIELD PROVEN STATE OF-THE-ART, 24 BIT DELTA SIGMA TECHNOLOGY OR HIGHER CABLE-LESS (NODE BASED) DATA ACQUISITION SYSTEM

1.0 PREAMBLE:

OIL INDIA LIMITED (OIL), a premier National Oil Company, is engaged in the business of exploration, production and transportation of crude oil and natural gas for over five decades. It is a Navaratna Company under Ministry of Petroleum and Natural Gas, Government of India and the second largest National Oil Company in the country.

As part of its strategy to strengthen its position as a leading operator, OIL is continuously carrying out seismic data acquisition, exploratory and development drilling in its operated acreages. OIL is currently carrying out domestic E&P activities in a total of 59 nos. of operated acreages. These include 25 nomination Petroleum Mining Leases (PML) (21 in Assam, 2 in Arunachal Pradesh and 2 in Rajasthan), 3 nomination Petroleum Exploration Licenses (PEL) in Arunachal Pradesh, 4 NELP blocks (2 in Assam, 1 in Mizoram and 1 in Andhra Pradesh), 29 OALP Blocks (12 in Assam & AP, 1 in Nagaland, 3 in Tripura, 5 in Rajasthan, 5 in Odisha, 2 in Andaman shallow offshore and 1 in Kerala Konkan shallow offshore) and 3 Discovered Small field (DSF) blocks (1 each in Tripura, in KG Shallow Offshore and Rajasthan). The total operating acreage covers an area of 63,045 sq. km.

In connection with its ongoing exploration activities, OIL has planned to procure the one (1) number of Cables less (Node based) seismic data acquisition system.

2.0 OBJECTIVE

OIL invites reputed and established OEM/equipment manufacturer to provide the latest (ready to use) state of art cable less (node based) seismic data acquisition equipment system and its capabilities to working in different terrain conditions.

3.0 BROAD SCOPE OF WORK

One (1) no. of new generation, field proven state of-the-art, 24-bit delta sigma technology or higher cable-less (node based) data acquisition system for acquiring seismic data in different terrain/basins. The detailed specifications of the equipment are enclosed as **Enclosure- I.**

4.0 GENERAL NOTES

(i) The OEM needs to submit documents/brochures showcasing its capabilities as mentioned in Enclosure-I.

(ii) All documents submitted along with the EOI must be self-certified by the OEMs/Authorized dealers and should be clear & legible.

(iii) The EOI is liable to be ignored in case of submission of any misleading / false representation by the OEMs/Authorized dealers.

(iv) OIL INDIA LIMITED reserves the right to ignore any or all EOIs, without assigning any reason thereof.

(v) OEMs/Authorized dealers who wish to present their technology be present on **24 Apr 2023** at below address.

CGM-GEOPHYSICS
OIL INDIA LIMITED
GEOPHYSICS DEPARTEMNT
P.O. DULIAJAN-786602
DIST. DIBRUGARH, ASSAM, INDIA

5.0 SUBMISSION OF EOI:

I. Interested OEMs/Authorized dealers are invited to submit their EOI and any related queries at our e-mail ID: **hgp_office@oilindia.in** within **12.04.2023**, followed by hard copies of the same through courier/post super-scribing "EOI No. EOI/ for “Procurement of One (1) No. of New Generation, Field Proven State Of-The-Art, 24 Bit Delta Sigma Technology or Higher Cable-Less (Node Based) Data Acquisition System" at the following address:

CGM-GEOPHYSICS
OIL INDIA LIMITED
GEOPHYSICS DEPARTMENT
P.O. DULIAJAN-786602
DIST. DIBRUGARH, ASSAM, INDIA

II. The EOI(s) may also be uploaded in Parties' FTP server/ File sharing website (portal) and the link(s) may be provided to us at our e-mail within above specified period.

III. OIL reserves the right to (a) accept or reject any / all EOI(s) submitted by parties(b) cancel the process at any time without any liability and assigning any reason thereof.

ENCLOSURE-I

1.0 SCOPE OF WORK

1.1 The Seismic Data Acquisition System shall have capability of **cableless (node based)** operation in land seismic data acquisition. The system shall offer:

- Single point platform (Common Central Platform) to allow recording of seismic data of a shot (source) and Cableless recording channels (sensors) deployed in the acquisition spread.

- Capability of producing complete seismic record (shot-gathers etc.) for Cable-less sensors active under the recording spread (shooting template).

The seismic data acquisition system shall have complete adaptability for any survey size, any source, any condition, and any terrain for full-fledged multiline field operation.

1.2 OEMs/Authorized agents should submit EOI for the latest make & model.

1.3 The system is to be fully operational with a minimum deployment of **12000 cable-less channels (nodes**).

1.4 The system should have the capability of up gradation to higher channel capacity up to **a minimum of 20,000 cableless channels**.

1.5 Seismic data recording must have the capability of recording data using a mixed type of sensor i.e., **high sensitivity geophone, 10 hz or 5 hz natural frequency geophone etc.**

1.6 The system should also have the capability to record data using **a mix of geophones and hydrophones** within the same acquisition spread.

1.7 The system should work on a user-friendly menu driven software for field QC status, field management, shooting operation and data harvesting / data transcription etc.

1.8 Capability of providing graphical & numeric display of the GPS (Global Positioning System), Battery, Sensor Status and self-diagnostic test of unit(s) will be required.

1.9 The data acquisition station units/links, ground electronics for land / Marshy Area seismic should be rugged for field use and should be waterproof up to minimum one (01) meter.

1.10 All the peripheral equipment and accessories offered along with the seismic data acquisition system and ground electronics should be of the brand new, **latest make & model** available at the time of offering.

1.11 The acquisition system should support impulsive energy source (Explosive) controller as well as non-impulsive energy source (Vibrator) controller during seismic data acquisition.

1.12 The system must be fully scalable.

1.13 The central recording system should (including man-machine interface /operator console) be duly interfaced and hooked up with the seismic data storage device (Rugged Internal Storage devices or External Storage Devices with RAID 5 & RAID 1 or higher available configurations respectively), shooting systems, radios for two way communication, peripheral equipment like plotters, LED or higher monitors (to display operational, test and Quality Control data), and other modules / accessories necessary to operate the system optimally as per the specifications/requirements. The Central recording system should be mounted on suitable shock mounts so as to withstand the shocks & vibrations encountered during transportation in cross country. The entire central recording system should be mounted in an adequately & properly air-conditioned cabin.

1.14 Central Controlling/recording unit should be capable of initializing and setting up recording parameters of the data acquisition units/Links.

1.15 The system is broadly inclusive of the following modules:

- Central Recording Unit (combination of hardware & software)
- Cable-less channels (node based)
- Data Harvesting & Data Integration facility and Transcription unit (combination of hardware & software)
- Source Encoder & Decoder system
- Up-hole/ LVL Recording Equipment
- Radio Communication system (walkie-talkie etc.)
- Instrument Cabin Truck (for Central Recording Unit), Genset and Genset mounted Truck.
- Cabin for data harvesting/data coping facility

2.0 Supplier must have experience in manufacturing of Cable-less system.

3.0 Supplier must have the experience of successful supply and commissioning of minimum 01 (one) no. of the item of above-mentioned technical specification in the last 05 (five) years.