

**INVITATION FOR
EXPRESSION OF INTEREST FOR CAPACITY BOOKING**

5 MMTPA RLNG TERMINAL

at

Chhara, Gujarat



HPCL LNG Limited

(Formerly known as HPCL Shapoorji Energy Private Ltd)



EOI INVITATION ISSUE /DOWNLOAD PERIOD: 21st December 2022 to 25th January 2023

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2 EXECUTIVE SUMMARY

2.1 Introduction

The natural gas market in India is growing at a rapid pace and its share in overall energy basket is increasing. With increasing emphasis on clean environment, natural gas has emerged as a preferred fuel alternative. Natural gas which constituted around 1% of India's energy mix in the late 1980s, contributed around ~6% of the nation's energy requirement by end of 2019. The Government of India is keen on promoting the use of natural gas in the country and develop a gas based economy by enhancing the share of natural gas in the energy basket to 15% from the current 6.3% (*MoPNG Annual report FY 20-21*). However, increase in domestic production is projected to be limited and will not be sufficient to meet demand for natural gas in the country. Hence, imported LNG is expected to play an increasingly important role in meeting this demand supply gap.

In order to meet country's increasing gas demand, Hindustan Petroleum Corporation Limited ("HPCL") is setting up a 5 MMTPA land based LNG Storage and Regasification Terminal at Chhara Port in Gujarat ("the Project" or the "LNG Terminal") through its wholly owned subsidiary, HPCL LNG Limited (*erstwhile HPCL Shapoorji Energy Pvt Ltd*) ("HPLNG" or "the Company"). The Project has regasification capacity of 5 MMTPA and the same can be ramped up to 10 MMTPA in future.

HPLNG was established as an equal joint venture of HPCL and SP Ports Private Limited ("SP Ports"), a Shapoorji Pallonji Group company. However, SP Ports decided to exit from HPLNG and accordingly, the entire equity shareholding of SP Ports in HPLNG has been acquired by HPCL on 30th March 2021. Pursuant to the said acquisition, HPLNG became a wholly owned subsidiary of HPCL. Accordingly, to reflect change in ownership, the Company has changed its name to HPCL LNG Limited from HPCL Shapoorji Energy Private Limited.

The Terminal shall be operated on tolling business model wherein off-takers will book capacity in the terminal on 'Use or Pay' basis. Off-takers will source the LNG, regasify it at the Chhara LNG Terminal, pay re-gasification charges, and sell the RLNG onwards to their end consumers.

HPCL, being the promoter of HPLNG and an Anchor Customer of HPLNG Terminal, have booked majority capacity in the terminal and the balance is offered to the interested parties. The capacity of the terminal can be ramped upto 10 MMTPA at a short notice based on future demand.

2.2 Hindustan Petroleum Corporation Ltd.

HPLNG is a wholly owned subsidiary of Hindustan Petroleum Corporation Limited (HPCL).

HPCL was formed on July 15, 1974. HPCL is a 'Maharatna' Central Public Sector Enterprise (CPSE) and S&P Platts Top 250 Global Energy Company with a ranking of 26 (2022) with Annual Gross sales of Rs 3,72,642 Crore during financial year 2021-22.

HPCL has a strong presence in downstream hydrocarbon sector of the country with substantial share in petroleum product marketing and also has business footprints across other energy verticals and various overseas geographies. The company plays a significant role in meeting nation's energy requirements.

HPCL is an oil & gas refining and marketing company with strong infrastructures including refineries, lube plants, LPG bottling plants, pipelines, terminals/depots, retail outlets, etc. The refinery infrastructure includes refineries at Mumbai (West coast) & Visakhapatnam (East coast) which are owned and operated by HPCL. In addition to these two refineries, HPCL also holds stake in HPCL Mittal Energy Limited (HMEL) and Mangalore Refinery and Petrochemicals Limited (MRPL) which owns and operates refinery in Bhatinda, Punjab and Mangalore, Karnataka respectively. Another joint venture of HPCL is with Government of Rajasthan, HPCL Rajasthan Refinery Limited (HRRL), which is setting up a Greenfield refinery cum petrochemical complex in the State of Rajasthan. The Mumbai refinery also has the biggest Lube Refinery in India.

HPCL has strong marketing infrastructure which includes more than 20000 retail outlets and more than 6000 LPG distributorship. The company owns and operates the second largest petroleum product pipeline network of more than 5000 Kms in India for efficient transportation of petroleum products to key marketing terminals across the country. HPCL also has a HP Green R&D centre at Bangalore which is focused in developing, demonstrating and deploying novel & innovative products and technologies.

As an integrated oil company with refineries, marketing terminals/ depots and retail outlets, interest in E&P assets, HPCL is playing a significant role in the nation's economic development and growth.

2.3 The Project

The Project includes setting up of a 5 MMTPA LNG terminal at Chhara port in the Gir Somnath district of Gujarat, India. Chhara port is being developed by Simar Port Private Limited, a 100% subsidiary of SP Ports Private Limited (SP Ports), a Shapoorji Pallonji group company.

The key Project facilities include:

- Marine Facilities comprising of a single LNG jetty which can accommodate LNG ships with capacity of 65,000 cubic meter to 266,000 cubic meter.
- Tanks and Storage facilities comprising of two tanks having gross capacity of 200,000 cubic meter each.

- Re-gasification Facility based on Shell and Tubes Vaporiser (STV) system.
- Utilities including Nitrogen generating System, Captive Power Plant, Emergency Diesel Generator, etc.

The Project shall be operated on tolling business model wherein off-takers will book capacity in the terminal on ‘Use or Pay’ basis. Off-takers will source the LNG, regasify it at the Chhara LNG Terminal, pay re-gasification charges, and sell the RLNG onwards to their end consumers.

The Regasified LNG from the terminal shall be evacuated using GSPL’s gas grid. GSPL is constructing an ~ 87 km tie-in connectivity pipeline to connect Chhara LNG terminal to GSPL network at GSPL Dispatch Station, Londhpur. The first phase of pipeline is planned to be completed by April – June 2023. GSPL’s gas grid is connected to National Grid which help off-takers in accessing key consumption centers across the country.

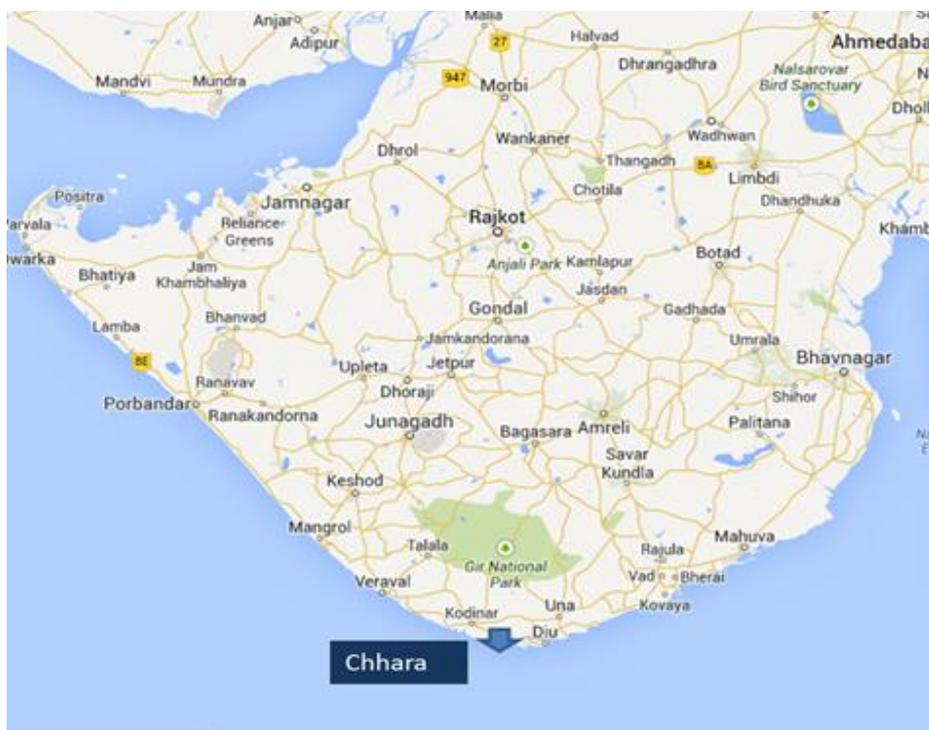
2.4 Construction Progress of HPLNG Project:

The Company has achieved an overall progress of ~ 97% as of November 2022 and plans to mechanically complete the Project by January 2023. The Company plans to start the Commercial Operations by third quarter of 2023.

2.5 Project Location

The Project location is shown in the following figure:

Figure 1 – Project Location



The Project location is near Chhara village located approximately at Latitude -20°43’19” N and Longitude - 70°44’28” in the Kodinar Taluka, Gir Somnath district of Gujarat state. The shoreline for Chhara Port is on the

South face of the area stretching for a length of 2.5 km. Kodinar is the nearest town and nearest National Highway is NH 51 which is approximately 6.5 km north of proposed port site.

2.6 Pipeline Connectivity to the Terminal

The Regasified LNG from the terminal shall be evacuated using GSPL's gas grid. GSPL is constructing an ~ 87 km tie-in connectivity pipeline to connect Chhara LNG terminal to GSPL network at GSPL Dispatch Station, Londhpur. The first phase of pipeline is planned to be completed by April – June 2023. GSPL's gas grid is connected to National Grid which help off-takers in accessing key consumption centres across the country.

Figure 2 – National Grid Pipeline Network connectivity from the terminal.



Legend

- Existing Gas Pipeline
- - - Authorised Gas Pipeline
- Existing GAs Upto Eighth Round
- GAs Covered Under Ninth Round
- GAs Covered Under Tenth Round
- GAs Covered under Eleventh Round
- Existing LNG Terminals
- Up-coming LNG Terminals

* Not to the Scale
* Gas Infrastructure of India is indicative in nature

Source: National Grid Pipeline Network as of 26 October 2021, PNGRB

2.7 The Chhara Port

The Chhara Port is being developed by Simar Port as an all-weather, direct berthing port with dredged depth of (-) 17.3-m CD in the Approach Channel, designed to handle Dry Bulk carriers of up to 82,000 DWT (Kamsarmax), LNG carrier of upto 266,000 CUM (Qmax) and LPG carrier of upto 100,000 DWT (VLGC)

The current scope of work under Phase-I includes infrastructure for LNG Terminal as given under:

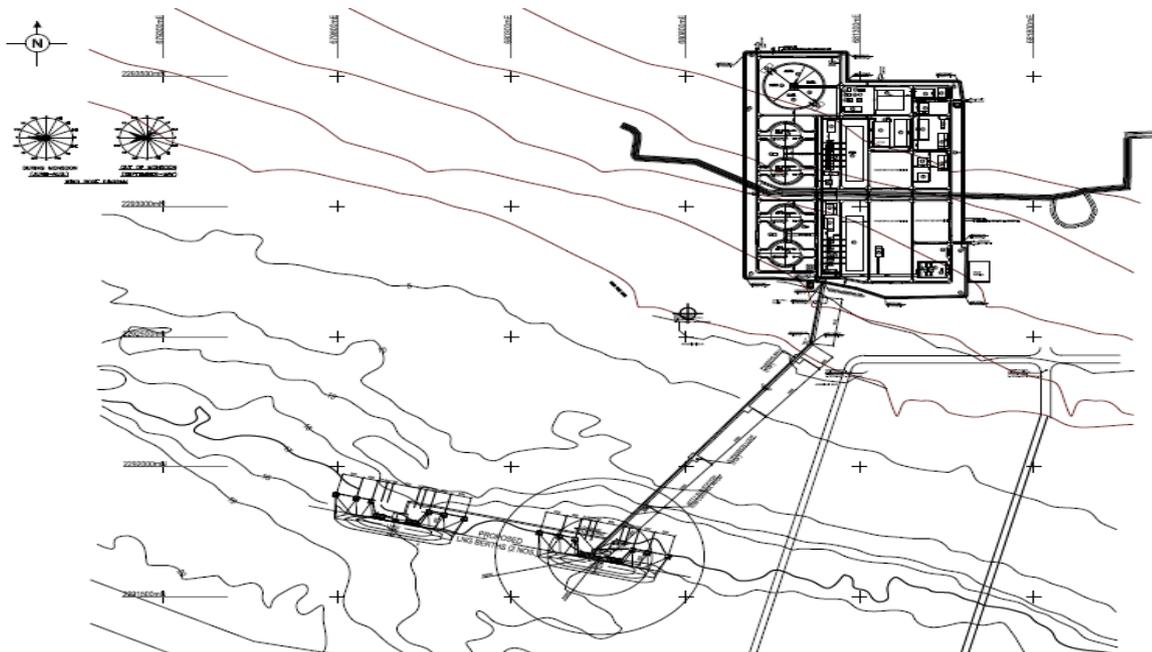
- Breakwater (~1,950 m) for LNG Operations;
- Approach channel;
- Road connectivity etc.

2.8 LNG Terminal

2.8.1 Terminal Layout

The Project facilities layout has been decided based on various site screening studies. The terminal layout is shown in the following figure:

Figure 3 – LNG Terminal Layout



The approach channel for the port is around 7 km long and 300 m wide. The Project will be having a rubble mound Breakwater at a distance of 2.5 km from the shore and aligned parallel to the shore on the natural shoal bank. Due to availability of sufficient natural draft, no major capital dredging is required and only some portion of the approach channel requires minor dredging, which is undertaken by Simar Port.

Simar Port would provide safe, tranquil conditions for harbouring LNG vessels and all other necessary services associated with the safe transit, mooring and unloading of the LNG carriers.

2.8.2 Marine Facilities

A. Jetty Head

As per the master plan for the Project, there is one main jetty with provision for standby jetty in future. The Jetty is at a distance of about 1.2 km from the shore. The jetty head will accommodate berthing of the LNG Carrier and is fitted with equipment and systems that will allow safe and efficient operation.

The operation will be monitored and controlled from the Central Control Room and from the jetty monitoring building.

B. Trestle

The trestle (pipe rack) will connect the shore line to the jetty head. The trestle supports the piping and also the power and instrumentation cable trays. Spare space is designed for the trestle connecting to Main jetty for additional unloading lines for future expansion. The trestle will also support the access road to enable quick and safe access to the jetty head for safety and maintenance crews. The trestle, the structures and the piping systems are designed to withstand all accidental and abnormal conditions (wind, earthquake, water hammers, wave shocks etc.).

2.8.3 LNG Unloading facilities

LNG will be unloaded by the ship unloading pumps. The LNG discharged from the LNG ship will flow via unloading arms to either or both the LNG storage tanks. Three identical LNG unloading arms will be used to achieve the design ship unloading rate of 11,000 m³/h. The brief specifications of unloading facilities are as follows:

Unloading Data	
LNG Carrier Capacity	65,000 m ³ to 2,66,000m ³ (Q-Max)
Design Unloading Rate	11,000 m ³ /hr
Peak unloading Rate	16,000 m ³ /hr
No of Liquid unloading arms	Three
No of vapour return arm	One

The flow rates into each LNG storage tank would be adjusted by control valves installed on the tank's unloading line. A part of the Boil-Off Gas (BOG), generated during unloading operation, will be returned to the cargo tanks of the LNG ship.

2.8.4 Onshore facilities

- LNG storage tanks:** The Project consist of 2 LNG tanks with gross capacity of 200,000 m³ each. As per the terminal layout, provision is made for 2 additional storage tanks.

- **LNG vaporization:** This include 4 Shell and Tube LNG Vaporizers (STV) with Air Heaters, 1 Submerged Combustion LNG Vaporizers (Capacity equivalent to 1 STV, as a standby) and associated equipment, piping and instrumentation. The Submerged Combustion LNG Vaporizer will be required for cold weather conditions. LNG will be vaporized in the STV with LNG on the tube side and ethylene glycol water mixture on the shell side. SCV type vaporizers will be operated to compensate for the reduced send-out resulting from the low ambient air temperatures. 1 Co generation heat exchanger is installed for heat recovery from GEG flue gases and utilize it to regasify LNG.
- **Boil off handling and flaring:** The facilities consist of 3 Boil Off gas compressors, 1 flare stack and associated equipment, piping and instrumentation.
- **Terminal process:** The LNG terminal facilities cover the following process functionalities:
 - ✓ Connection with marine facilities to receive the unloaded LNG and to return the boil-off gas to the ship.
 - ✓ LNG storage, as a buffer between the unloading and the send-out.
 - ✓ Vaporisation of the LNG.
 - ✓ Metering of the send-out gas.
 - ✓ Pipeline connection (within the plant boundaries) with space for the pig station (launcher or receiver)

RLNG Send-out

Send out pressure	
Design	95 bar
Nominal	88 bar
Minimum	50 bar
Send out rates:	
Average On yearly basis	5 MMTPA
Peak	120% Average

- **Power Supply:** The electrical power supply, from Gujarat State Electricity Board grid with backup from 3 gas engine generators is provided and also one emergency diesel generator is provided for meeting exigencies. Further for units requiring uninterrupted operations, suitable provisions of power supply / control systems is made.
- **Ancillary facilities:** Beside these process functionalities the following utilities and safety systems are provided:
 - ✓ The control and monitoring system.
 - ✓ The instrument and plant air supply.

-
- ✓ The nitrogen generation package for Wobbe Index adjustment, when required, and for sealing or maintenance purposes.
 - ✓ The service water supply for make-up in cooling system and cleaning.
 - ✓ The fire water system: service water tank, pumps (jockey and supply as per National Fire Protection Association - NFPA 20), the loop with hydrants and required accessories,
 - ✓ The foam system and portable/mobile fire extinguishers to reduce fire impacts or to extinguish it.
 - ✓ The nitrogen snuffing system to blow-off the fire at safety valves outlets

3 EXPRESSION OF INTEREST FOR CAPACITY BOOKING

Purpose of Invitation for EOI

Expression of Interest (EOI) is invited from offtakers ('Offtaker(s)' or 'Interested Party(ies)') for booking capacity at HPLNG's Chhara LNG terminal, India.

1. HPLNG Offering

HPCL LNG Limited (HPLNG), a wholly owned subsidiary of HPCL, is inviting EOI from interested parties to offtake LNG/book capacity from the Chhara Port LNG Terminal that is due for commercial operations by the third quarter of 2023. HPCL, being the promotor, will be the anchor customer and the balance will be available for interested offtakers. The terminal can be ramped up to 10 MMTPA at a short notice if there is enough requirement from the offtakers. The terminal will have all the associated facilities for receipt, unloading, storage and regasification of LNG and supply of regasified LNG to the gas grid.

2. List of documents to be submitted

- EOI Registration Form (sample attached in annexure II)
- Certificate of Incorporation
- Audited Financial Statement of the company for the last 3 years ending FY22
- Liquidation Undertaking (sample attached in annexure III)

All required documents or any other documents to be submitted by the interested party, shall be in English language only. The party shall provide certified English translations of any documents forming part of the EOI which are not originally in English language, in which case, for the purpose of interpretation of the EOI, the English translation shall govern.

Interested Parties are responsible for all of their expenses, costs and risks incurred towards preparation of the EOI.

3. Schedule for Submission of EOI

The complete EOI must be submitted, via hand delivery, RPAD or SPEED POST to HPLNG's office or via email on mktg@hplng.in, not later than 1700 hrs IST on 25 January 2023.

4. Non-Discloser Agreement (NDA)

Please note that adequate information is being provided in this Invitation enabling the Interested Parties for submission of EOI. The prospective off-takers will be shortlisted by HPLNG and such parties will be required to sign a Non-Discloser Agreement (NDA) before sharing the term sheet for Regasification Agreement.

5. Correspondence

HPLNG Correspondence details are as below:

Saurabh Rampal
Manager (C&P)
HPCL LNG Limited
Third Floor-West Wing, Forbes Building,
Charanjit Rai Marg, Fort
Mumbai-400001
Phone: 91-22-62796666/619
Email: mktg@hplng.in

6. Governing Law and Dispute Resolution:

This Invitation and EOI shall be governed by the laws of India.

The courts at Ahmedabad shall have exclusive jurisdiction in all matters pertaining to this Invitation and further process.

7. Other agreements to be entered by the Off-takers with third parties. (Port Operator: Simar Port, Pipeline Operator: GSPL)

All the Offtakers will have to get into contract agreement with HPLNG for allotted capacity for regasification of Liquefied Natural Gas. Offtakers will also need to get into agreement with Port Operator for port services and with Pipeline Operator to transport regasified LNG from the terminal to the end users. HPLNG will only provide reasonable assistance to the Offtakers for entering into the above-mentioned agreements with Port Operator and Pipeline Operator.

Annexure I: Recent Site Photographs

a) Aerial view of the LNG Terminal facility



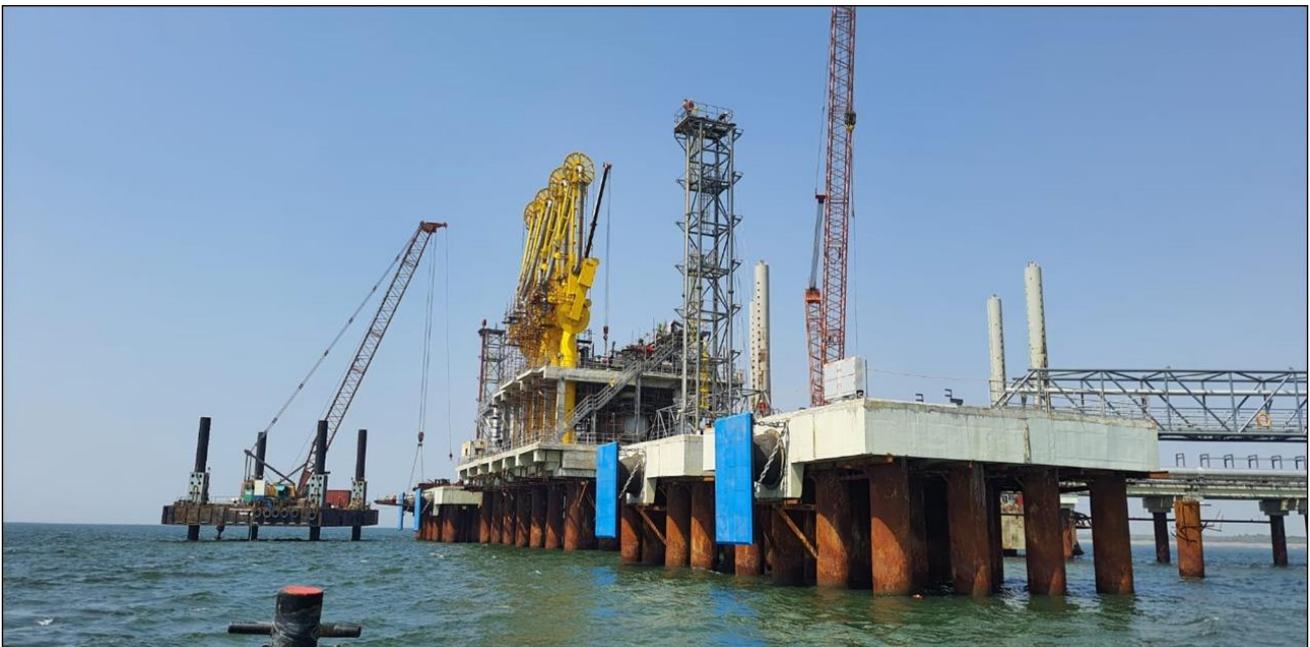
b) Jetty Approach Trestle



c) Tank T-101 & T-102



d) Unloading Arms



Annexure II: REGISTRATION FORM

REGISTRATION FORM TO BE FILLED IN BY APPLICANT

(To be submitted along with a covering letter on the Letter Head of Company []). All pages of the registration form to be signed & stamped by the authorized signatory of the company. The mere submission of an application by party doesn't guarantee shortlisting for further stage. HPLNG reserves the right to reject any application without assigning any reason thereof)

A.	Company Details	
(I)	Name Of the Company	
(II)	Nationality/Country Of Incorporation	
(III)	Corporate Headquarters	
(IV)	Date Of Incorporation	Please Enclose Copy Of Certificate Of Incorporation.
(V)	Core Business Activity Of The Company/Year Since Manufacturing	
(VI)	Type Of Company	Private/Public (Please Specify Whether Your Company Is Directly Or Indirectly Held/ Controlled/Owned By Any Indian/Foreign Entity/National(S).)
(VII)	Name(S) Of The Country (Ies) In Which Assets Of Your Company Is/Are Situated.	(Please Indicate Nature Of Assets)
(VIII)	Name Of The Chairman/ President/Managing Director and Directors	
(IX)	Dept. And/or Person To Be Contacted By HPLNG (Full Mailing Address For Correspondence)	
(X)	Telephone Nos.	
(XI)	Fax Nos.	
(XII)	Designated Email Address Correspondence	
(XIII)	Overseas Offices	(With Name Of Contact Official And Telephone/Fax/Telex Nos.)
(XIV)	Parent/Holding Company If Any	(Please Also Give %Age Of Shareholding) (Please Provide Document For Being A 100% Subsidiary, If Applicable)
B.	Capacity Booking Details	
(I)	Potential Regasified LNG Offtake (MT)	(operations will likely begin from 3 rd quarter 2023)
	Year 1	
	Year 2	
	Year 3 onwards	

C.	Information regarding existing agreements/arrangements with LNG Terminals in India or elsewhere.	
D.	Source of LNG	

Annexure III: AFFIDAVIT

(On APPLICANTS letterhead)

AFFIDAVIT

I _____ the *Director/ Proprietor/Partner/ Authorized signatory of _____ (mention name of firm/company and its complete address) do here by solemnly affirm and declare as under:-

1. That our Firm / company i.e. _____ (mention name of *firm/ company) is registered vide Registration No. _____ under the provisions of _____ (mention the name of the Act).
2. That our Firm / company i.e. _____ (mention name of *firm/ company) has applied in response to the Expression of Interest for HPLNG terminal capacity booking in LNG regasification terminal.
3. That _____ (mention name of firm/company) is eligible to submit the aforesaid application as it is not under liquidation, court receivership or similar proceedings.
4. That all the information, documents and declarations submitted in/with our application are correct to the best of our knowledge and understanding.
5. That if any information, document or declaration submitted in/with our application, is found to be incorrect at a later date, we indemnify HPLNG against any loss due to this and HPLNG may take any action as deemed fit.

Place:

(Sign. & Seal of Authorized Signatory)

Date: