

# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India (Ministry of Road Transport and Highways, Government of India) क्षेत्रीय कार्यालय, मदुरे / Regional Office, Madurai दूसरा व तीसरा तल, विजय कृष्णा 'लाजा, सं. 1, लेक एरिया, मेलुर मैन रोड, माहुतावनी, मदुरे - 625107 2<sup>nd</sup> & 3<sup>rd</sup> Floor, Vijay Krishna Plaza, No. 1, Lake Area, Melur Main Road, Mattuthavani, Madurai - 625107 दूरमाष / Tele: +91-452-2588999 वेब / Website: www.nhai.gov.in ई.मेल / E-mail: romadurai@nhai.org



NHAI/15018/4.3/01/2025/RO Madurai/E-291676/1478

17th September, 2025

## INVITATION OF PUBLIC COMMENTS

विषय: भाराराप्रा - क्षे.का. मदुरै- पकाई, कराइकुडी - Permission to lay 6.625" underground natural gas pipeline along with Optic Fiber cable for BHEL R-LNG connectivity at Km 117.99 across Trichy Bypass(Outer ring road connecting NH-83 and NH-336) in Suriyur village, Trichy- Proposal submitted by M/s. Indian Oil Corporation Limited - Invitation of Public Comments - Reg.

प्रसंग : PD, Karaikudi Lr. NHAI/11035/36/2025-PIU KKDI/E-291676/934 dated 22.08.2025.

The Proposal is regarding permission for laying of underground natural gas pipeline along with Optic Fiber cable for BHEL R-LNG connectivity at Km 117.99 across Trichy Bypass (Outer ring road connecting NH-83 and NH-336) in Suriyur village, Trichy by M/s IOCL in the State of Tamil Nadu by Dy.General Manager (Construction), M/s IOCL, SRPL, Chennai has been submitted to this office by the PD, Karaikudi Lr. NHAI/11035/36/2025-PIU KKDI/E-291676/934 dated 22.08.2025 in accordance with Ministry's latest guidelines dated 22.11.2016.

2) The alignment proposed by Dy.General Manager (Construction), M/s IOCL, SRPL, Chennai for laying of underground natural gas pipeline along with Optic Fiber cable for BHEL R-LNG connectivity at Km 117.99 across Trichy Bypass (Outer ring road connecting NH-83 and NH-336) in Suriyur village, Trichy is as detailed under:

Stretch in Km	Length (m)	Dia of pipe	Available ROW (m)	Remarks
Across NH - 336: Km 117/99	60	6.625" Dia Carbon steel pipe with 7.9mm thickness & 89mm MS pipe for OFC	60	Laying of pipe line across by HDD Method at minimum depth of 1.5 m from top of the subgrade.

3) The Right of Way is 60 m in the aforesaid stretch. Dy.General Manager (Construction), M/s IOCL, SRPL, Chennai has proposed for laying of underground natural gas pipeline along with Optic Fiber cable for BHEL R-LNG connectivity at Km

कॉर्पोरेट कार्यालय : जी-5 एवं 6 सेक्टर-10 द्वारका, नई दिल्ली - 110075. दूरभाष : 011-25074100 / 4200 वेबसाइट : http://www.nhai.gov.in Corporate Office: G-5 & 6, Sector - 10, Dwarka, New Delhi - 110075. Tel : 011-25074100 / 4200 Website : www.nhai.gov.in NHAI/15018/4.3/01/2025/RO Madurai/E-291676/ 1678

17th September, 2025

117.99 across Trichy Bypass (Outer ring road connecting NH-83 and NH-336) in Suriyur village, Trichy in the State of Tamil Nadu which is in conformity with Ministry's guidelines dated 22.11.2016.

- 4) Dy.General Manager (Construction), M/s IOCL, SRPL, Chennai has furnished an Undertaking to the effect that the applicant will move the laid gas pipeline in future if required by NHAI at any time for expansion of the NH at their own cost without claiming any compensation from NHAI. Further, mentioned that Dy.General Manager (Construction), M/s IOCL, SRPL, Chennai will also undertake that laying of gas pipeline will not have deleterious effects on any of the bridge components and roadway safety for traffic.
- 5) As per the guidelines issued by the Ministry vide letter No.RW/NH-33044/29/2015/ S&R(R) dated 22.11.2016 the proposal submitted by the applicant will be made available for public comments and the comments is invited within 30 days from the day of uploading.

In view of the above, comments of the public on the above proposal is invited to the below mentioned address:

Regional Officer,
National Highways Authority of India,
No.2nd & 3rd Floor, Vijay Krishna Plaza,
No.1, Lake Area, Melur Main Road, Mattuthavani,
Madurai - 625 007.

(एस .अजित कुमार | S.Ajith Kumar) प्रबंधक (तक)| Manager (Tech) क्षे.का. मदुरै |RO-Madurai

संलग्नः As above

# प्रतिलिपि:

- 1. The NIC, New Delhi for uploading in the Ministry's website.
- 2. The PD, Karaikudi for information.



## (सड़क परिवर्हने और राजमार्ग मंत्रालय, भारत सरकार) National Highways Authority of India



(Ministry of Road Transport & Highways, Government of India) उप महाप्रबंधक (तकनिकी) सह परियोजना निदेशक के कार्यालय परियोजना कार्यान्वयन इकाई - कारैकुडी

Office of the Deputy General Manager (Tech) & Project Director Project Implementation Unit - Karaikudi नं.1, दूसरी मंजिल, सुब्रमण्यपुरम तीसरी स्ट्रीट, कारैकुडी - 630 002

No. 1, 2<sup>nd</sup> Floor, Subramaniapuram 3<sup>rd</sup> Street, Karaikudi - 630 002

दूर / Tele : +91- 4565 230707 ई-मेल / E-mail : karaikudipiu@gmail.com, karaikudi@nhai.org



#### 11035/36/2025- PIU KKDI/E-291676/934

22<sup>nd</sup> August 2025

To

The Regional Officer, National Highways Authority of India, Regional Office, Madurai.

Sub: NHAI - PIU, Karaikudi - Permission to lay 6.625" underground natural gas pipeline along with optical fiber cable for BHEL R-LNG connectivity across Trichy Bypass (Outer ring road connecting NH-83 and NH-336 at Km 117.99) in Suriyur village, Trichy District - Proposal submitted - Approval - Requested - Reg.

Ref:

- 1. The Deputy General Manager (construction), Chennai, Letter No: SRPL/ETBPL/TRY/BHEL/GEN01, dt: 03.07.2025, received on 09.07.2025.
- 2. This Office Letter No: 11035/36/2025- PIU KKDI/810, date: 16.07.2025.
- 3. The Deputy General Manager (construction), Chennai, Letter No: SRPL /ETBPL /TRY /BHEL /GEN01, dt: 18.07.2025, received on 29.07.2025.
- 4. The Resident Engineer M/s L.N. Malviya Infra Projects Pvt. Ltd., Karaikudi, Lr No: LNMIPPL/PO/PD/NHAI/T-K/2025-26/395, date: 08.08.2025.

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It is to submit that the Deputy General Manager (construction), M/s. IOCL, Chennai, vide reference 1<sup>st</sup> cited, has submitted the proposal seeking Permission to lay of 6.625" underground natural gas pipeline along with optical fiber cable for BHEL R-LNG connectivity across Trichy Bypass (Outer ring road connecting NH-83 and NH-336 at Km 117.99) in Suriyur village, Trichy District.

- 2. Vide reference 2<sup>nd</sup> cited, the scrutiny of the proposal, this office has made certain observations and returned the proposal. Accordingly, the Deputy General Manager, M/s. IOCL, Chennai, vide reference 3<sup>rd</sup> cited, has submitted the revised proposal, and the same has been forwarded to the Supervision Consultant for offering their comments. The Resident Engineer, M/s L.N. Malviya Infra Projects Pvt. Ltd., Karaikudi, vide reference 4<sup>th</sup> cited, has informed that the site has been inspected and verified the proposal and found to be in order.
- 3. On scrutiny of the proposal, the following details are submitted:

A Memorandum of Understanding was signed between Indian Oil Corporation Limited and National Highways Authority of India (NHAI) on 08.06.2022, the terms and conditions in respect of laying of new gas/petroleum pipeline are as follows:

#### Obligations, duties, and undertakings of NHAI

- NHAI will issue NOC to IOCL for laying gas/ petroleum pipeline(s) along and across National Highways in National Highways land (Right of Way) in 60 60-days period from the date of formal application by IOCL. Beyond this period of 60 days, it is understood by both the parties that the NOC stands issued.
- NHAI shall not levy any charges from IOCL and its agencies for laying new gas/petroleum pipelines along or across National Highways in the National Highways Right of Way.

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- NHAI will obtain Performance Security from IOCL before issuance of permission for laying gas/ petroleum pipeline(s) along and across National Highways in National Highways land (Right of Way).
- NHAI will extend all possible support during any exigency in the IOCL gas/ petroleum pipeline(s) at the crossing location of NHAI to IOCL.

#### Obligations, duties, and undertakings of IOCL

- IOCL, while laying gas/petroleum pipeline(s) across already constructed National Highways, will adopt the Trenchless method throughout National Highways land (Right of Way) with the depth of the topmost point of the pipeline being at least 1.5m below ground level/ bottom of any National Highway structure/ facility.
- IOCL shall bear all costs for laying of new pipeline along or across existing NH land (Right of Way).
- IOCL will try to maximize the crossing angle, i.e., near 90 degrees to NHAI's National Highways in National Highways Right of Way.
- IOCL will inform NHAI regarding crossing of IOCL's pipeline to National Highways during the land acquisition stage to expedite the crossing-related formalities.
- IOCL will extend all possible support during any exigency in NHAI's National Highways in the National Highways Right of Way at the crossing location of IOCL to NHAI.
- a) The Deputy General Manager (construction), M/s. IOCL, Chennai, has proposed laying a 6.625" underground natural gas pipeline along with an optical fiber cable for BHEL R-LNG connectivity across the road at Km. 117.99 of Trichy Bypass NH-83 in Suriyur village, Trichy District.
- b) The said proposal has been submitted in the NOC portal, and its application No: 20250705/2/14/38224/17036.
- c) The width of the existing ROW is 60 m.
- d) The Deputy General Manager (construction), M/s IOCL, Chennai, has given an undertaking that they will relocate any service roads, approach roads, or utilities at their own expense, notwithstanding prior permission granted within such time as stipulated by NHAI for future 4-laning or any other development.
- e) The Deputy General Manager (construction), M/s IOCL, Chennai, has given an undertaking on non-judicial stamp paper that they will pay the fee/rent as mentioned in the MoRT&H Guidelines / Circular No.RW/NH-33044/29/ 2015/S&R (R) dated 22.11.2016 as and when asked by NHAI.
- f) The cost of restoration charges for the laying of an underground natural gas pipeline along with Optical Fiber Cable (OFC) pipeline is worked out as Rs. 1,00,000/- (One Lakh Rupess only) for which the applicant is required to furnish the BG having validity up to one (1) year as per Annexure-I.
- g) The statement showing the list of utility services already approved by the Competent Authority is enclosed as **Annexure-II**.
- h) Certificate by the undersigned is enclosed as Annexure-III.
- i) The site will be restored to the original condition by M/s. IOCL, Chennai itself.

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4. In view of the above, it is requested that the necessary permission may please be granted to the Deputy General Manager (construction), M/s IOCL, Chennai, has proposed laying a 6.625" underground natural gas pipeline along with an optical fiber cable for BHEL R-LNG connectivity across the road at Km. 117.99 of Trichy Bypass NH-83 in Suriyur village, Trichy District at an early date.

Yours faithfully,

Encl: 1 No of copies Proposal with references.

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(B. Arun Prasad), DGM(T) & Project Director, PIU, Karaikudi.

#### **ANNEXURE-I**

Performance security against the restoration work for laying a 6.625" underground natural gas pipeline along with optical fiber cable for BHEL R-LNG connectivity across Trichy Bypass (Outer ring road connecting NH-83 and NH-336 at Km 117.99) in Suriyur village, Trichy District

SI.NO	Description	Leng	th in mtrs
A.	Laying of a gas pipeline across the ro	the HDD method	
	Cross the road at Km 117/99	1	
	Cost of restoration charge at Rs	=	100000
	1,00,000/- per crossing (1x100000)		
	Grand Total		100000
	Say Rs 1.00 Lakh		

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#### Annexure-II

[Enclosure to Ministry Circular No.RW/NH-33044/17/2000-S&R dated 29.09.2000 and dated 23.07.2009]

Format for Maintaining Records of Right-of-Way permission granted for laying Water Supply Pipeline

(to be maintained separetely for every NH and State)

1. Name of State : TAMIL NADU

2. Name of Agency : NATIONAL HIGHWAYS AUTHORITY OF INDIA, PIU, KARAIKUDI

3. NH Number : TRICHY BYPASS ON NH 67 (CONNECTING THUVAKUDI - MATHUR - PANCHAPPUR)

SI. No.	Location (chainage in km)	Left or Right side of NH (towards increasing chainage / km direction)	Section and reach	Kind of Service	Name of License and contact address	Date of signing agreeme nt	Date of validity of agreeme nt	Date of last inspe ction of site	Any deviation from MoRT&H Standard norms	Remarks
1	Across at Km.134/620 of NH 67	BHS	Sathanur	Sewage pipeline	The Commissioner, City Corporation, Trichy	18.11.20 22	17.11.20 27	-	-	
2	Along the road from Km.118/000 to Km.124/650 (LHS) of NH 67	LHS	Suriyur, Kumbakudi & Mathur	CS Gas pipeline	The Authorized Signatory, M/s.Megha Gas, Trichy.	07.11.20 23	06.11.20 28	-	-	
3	Across at Km.127/075 of NH 67	BHS	Kumaraman galam	Water Supply Pipeline	The Executive Engineer, TWAD, Urban, Trichy	08.05.20 24	07.05.20 29	-	-	
4	Across at Km.117/989 of NH 67	BHS	Kumaraman galam	Water Supply Pipeline	The Executive Engineer, TWAD, Maintenance Division, Trichy	08.05.20 24	07.05.20 29	-	-	
5	Across at Km.135/550 of NH 67	BHS	Panjappur	33KV Over Head Transmissi on Line	The Commissioner, City Corporation, Trichy	13.06.20 24	12.06.20 29	-	-	
6	IOCL - Suriyur	Across	Trichy Bypass	Gas Pipeline	The General Manager, IOCL, Trichy	-	-	-	-	instent proposal

#### **ANNEXURE-III**

#### **CERTIFICATE OF THE PROJECT DIRECTOR**

NAME OF THE WORK: -

Proposal for Permission to lay 6.625" underground natural gas pipeline along with optical fiber cable for BHEL R-LNG connectivity across Trichy Bypass (Outer ring road connecting NH-83 and NH-336 at Km 117.99) in Suriyur village, Trichy District.

It is certified that,

- 1. The proposal is found in order as per the Ministry Circular.
- 2. The proposal, if implemented, will not affect design stability & traffic safety.
- 3. The proposal, if approved, will be entered in the register for records of permission.
- 4. The proposal for laying a underground natural gas pipeline along with optical fiber cable for BHEL R-LNG across NH-83 Trichy Bypass. Further, the Deputy General Manager (construction), M/s IOCL, Chennai, has given an undertaking that they will relocate underground gas pipeline and optical fiber cable (OFC) at their own cost notwithstanding the permission granted within such time as stipulated by NHAI for future development.

ARUN PRASAD Digitally signed by ARUN PRASAD BOJARAJAN Date: 2025.08.22 10:46:20 +05:30



# L.N.MALVIYA INFRA PROJECTS PVT.LTD.

Office: No.30, 2<sup>nd</sup> Kannadhasan Street, Karaikudi - 630 002. Sivagangai District, Tamil Nadu.

CIN NO.: U45201DL2010PTC373715

E- mail : trichy2karaikudionm@gmail.com | web.:www.lninfra.com

#### No. LNMIPPL/PO/PD/NHAI/T-K/2025-26/420

Date:08.08.2025

To,
The Project Director,
Project Implementation Unit,
National Highway Authority of India,
No.1, 2<sup>nd</sup> Floor, Subramaniapuram 3<sup>rd</sup> Street,
Karaikudi – 630 002, Tamilnadu.

Sub: Consultancy services for Operation and maintenance of Trichy Bypass on NH-83 (Old–67) from KM 110.016 to KM 135.930; on Trichy – Pudukottai on NH-336 (Old-210) from KM 10.000 to KM 43.600; Pudukottai – Thirumayam on NH-36 (Old-210) from KM 43.600 to KM 66.000 Thirumayam – Karaikudi - Ramanathapuram on NH-536 (Old-210) from KM 66.000 to KM 174.000 in the state of Tamilnadu - Permission to Lay 6.625" Underground Natural Gas Pipeline and Optical Fiber Cable for BHEL R-LNG Connectivity - reg

**Ref:** PIU letter No. 11035/36/2025-PIU KKDI/860, dt:04.08.2025

#### Dear Sir,

With reference to the above-cited letter, a proposal has been submitted by IOCL seeking permission to lay a 6.625" underground natural gas pipeline along with an optical fiber cable for BHEL R-LNG connectivity, across Trichy Bypass (Outer Ring Road connecting NH-83 and NH-336) at Km 117.99 in Suriyur village.

The site was inspected along with the IOCL representative, and based on the inspection, the following recommendations are made:

- 1. Permission may be granted for laying the natural gas pipeline across the mentioned chainage, subject to the condition that it does not affect any existing utilities.
- 2. The natural gas pipeline crossing from LHS to RHS shall be carried out only by the Horizontal Directional Drilling (HDD) method.

Therefore, it is recommended to permit M/s Indian Oil Corporation Limited to carry out the proposed work at their own cost and risk, ensuring that no damage is caused to NHAI assets or property.

Thanking you and assuring you of our best service.

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Yours Sincerely For M/S L.N Malviya Infra Projects Pvt. Ltd. In Association with Infratech Solutions & consultant

Resident Engineer (P:Manimaran)

Corporate Office: Bhopal Indore Mumbai Pune



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# इंडियन ऑयल कॉपोरिशन लिमिटेड

दक्षिणी क्षेत्र पाइपलाइन्स हाउस ऑफ फोर फ्रेम्स

6/13, व्हीट क्राफ्ट रोड, नुंगमबाक्कम, चैन्नै - 600 03

दूरभाष : 044-2824 3129 / 3144



Indian Oil Corporation Limited

Southern Region Pipelines House of Four Frames

6/13, Wheat Croft Road,

Nungambakkam, Chennai - 600 034.

Tel: 044-2824 3129 / 3144

#### पाइपलाइन्स प्रभाग Pipelines Division

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#### SRPL/ETBPL/TRY/BHEL/GEN01

Date: 18.07.2025

To

The Deputy General Manager (Technical) & Project Director,

NHAI, PIU,

Karaikudi-630002

Subject: Request for Permission to Lay 6.625" Underground Natural Gas Pipeline along with Optical Fiber Cable for BHEL R-LNG Connectivity across Trichy Bypass (Outer Ring Road connecting NH 83 and NH 336 at Chainage 117.99 KM) in Suriyur Village, Trichy District

Dear Sir,

M/s Indian Oil Corporation Limited (IOCL) presently operates the following petroleum and gas pipelines in the state of Tamil Nadu:

- 1. Chennai-Trichy-Madurai Petroleum Product Pipeline (CTMPL)
- 2. Chennai-Bangalore Petroleum Product Pipeline (CBPL)
- 3. Chennai Aviation Turbine Fuel Pipeline (Chennai ATFPL)
- 4. Ennore-Tuticorin-Bangalore R-LNG Pipeline (ETBPL)

IOCL is currently undertaking an extension of the ETBPL from Suriyur (SV-124) to the Bharat Heavy Electricals Limited (BHEL) plant at Trichy. The alignment of the proposed pipeline within Trichy district is shown in the Google image layout enclosed as **Annexure-I** for your kind reference.

In this context, IOCL requests permission to lay an underground 6.625" diameter natural gas pipeline along with an Optical Fiber Cable (OFC) for communication and monitoring purposes across the Trichy Bypass Road (Outer Ring Road connecting NH 83 and NH 336 at Chainage 117.99 KM) at Suriyur Village, Thiruverumbur Taluk, Trichy District. The details of the proposed crossing are as follows:

पंजीकृत कार्यालय : इंडियन ऑयल भवन, जी- 9, अली यावर जंग मीग, बान्स (पूर्व) गुम्बर 1409 051. महार्मे श्रूष्ट विक्र

CIN No.: L23201MH1959GOI011388

Name of Crossing	Pipeline Ch. (km)	Village	Taluk	District
Trichy Bypass (Outer ring road connecting NH 83 and NH 336 at Chainage 117.99 KM)		Suriyur	Thiruverumbur	Trichy

The design and construction of the pipeline will strictly adhere to ASME B31.8 standards and other applicable safety codes, ensuring maximum safety for both operations and the public.

Furthermore, the work will be carried out in full compliance with the Memorandum of Understanding (MoU) dated 08.06.2022 between IOCL and NHAI (attached as **Annexure-II**). In accordance with Clause IV.2.a of the MoU, IOCL will adopt the trenchless method (HDD) throughout the National Highways Right of Way, ensuring a minimum cover of 1.5 meters from the top of the pipeline to the ground level or bottom of any National Highway structure. Road restoration to its original condition will be completed immediately at IOCL's cost upon completion of the crossing activity. IOCL's standard drawing for the road crossing using HDD technique is enclosed as **Annexure-III**.

As stipulated in the MoU, no charges are applicable from either party concerning road or pipeline projects.

We kindly request you to grant the necessary permission at the earliest to carry out the pipeline and OFC laying activity across the Trichy Bypass Road in Suriyur Village.

Thank you for your attention and support.

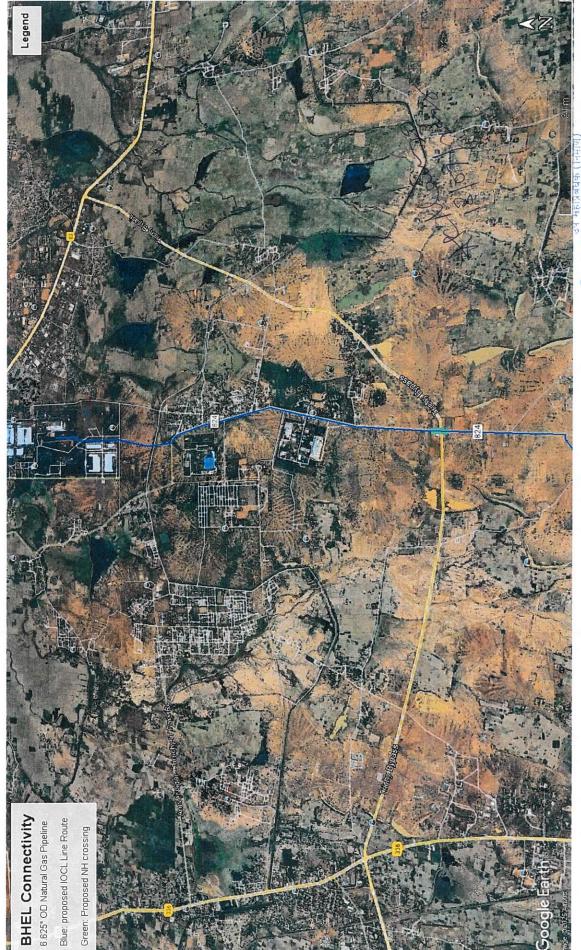
Yours faithfully,

(For and on behalf of Indian Oil Corporation Limited)

Ref: NHAI letter 11035 | 36 | 2025 - PIU KKDI / 810 dated 16.07.205

अरविन्द कुमार मौर्ग / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction)

इंडियन ऑयल कॉर्पोरेशन लिमिटेड Indian Oil Corporation Limited Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Road, Nungambakkam, Chennai - 600 034.



Deputy General Manager (Construction) इंडियन ऑयल कॅग्पीशन लिमिटेड Indian Oil Corporation Limited Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Road, Nungambakkam, Chennai - 600 034.



#### INDIA NON JUDICIAL

# **Government of National Capital Territory of Delhi**

#### e-Stamp

Certificate No.

: IN-DL43131039471235U

Certificate Issued Date

: 07-Jun-2022 11:13 AM

Account Reference

: IMPACC (SH)/ dlshimp17/ SUPREME COURT/ DL-DLH

Unique Doc. Reference

SUBIN-DLDLSHIMP1770917717202787U

Purchased by

INDIAN OIL CORPORATION LIMITED

Description of Document

: Article 5 General Agreement

**Property Description** 

Not Applicable

Consideration Price (Rs.)

0

First Party

(Zero)

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INDIAN OIL CORPORATION LIMITED

Second Party

Not Applicable

Stamp Duty Paid By

: INDIAN OIL CORPORATION LIMITED

Stamp Duty Amount(Rs.)

100

(One Hundred only)



# Please write or type below this line MEMORANDUM OF UNDERSTANDING

#### **BETWEEN**

### INDIAN OIL CORPORATION LIMITED

#### AND

NATIONAL HIGHWAY AUTHORITY OF INDIA (NHAI)

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Page 1 of 10

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This Memorandum of Understanding (hereinafter referred to as "MoU") made at NHAI, G-3, Sector-10, Dwarka, New Delhi on this 8<sup>th</sup> of June 2022 ("Effective Date"),

#### by and between:

INDIAN OIL CORPORATION LIMITED, a company duly incorporated under the Companies Act, 1956 and having its registered office at G-9, Ali Yavar Jung Marg, Bandra (East), Mumbai – 400 051 (hereinafter referred to as "IOCL" which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the First Part.

#### And

NATIONAL HIGHWAY AUTHORITY OF INDIA (hereinafter called NHAI) an autonomous Authority constituted by Act of Parliament, having its registered office at Sector 10, Dwarka, New Delhi - 110075, India, which expression shall, unless the context required otherwise, include its legal successors and permitted assigns (hereinafter referred to as "NHAI") of the Second Part.

IOCL and NHAI are individually referred to as "Party" and collectively as "Parties".

#### **RECITALS:**

WHEREAS; IOCL, a Maharatna Central Public Sector Undertaking under the administrative control of Ministry of Petroleum and Natural Gas (MoPNG), Government of India and is India's flagship national oil company with business interests straddling the entire hydrocarbon value chain – from refining, pipeline transportation and marketing of petroleum products to natural gas and petrochemicals.

WHEREAS; NHAI, is an autonomous agency of the Government of India under the Ministry of Road Transport and Highways (MoRTH) for development, maintenance, and management of National Highways across the country.

WHEREAS; In ever expanding networks of cross-country pipelines of IOCL and National Highways of NHAI, interfacing of these two structures and many locations is unavoidable.

Page 2 of 10

WHEREAS: Parties are desirous of simplification of the process of obtaining crossing permissions, optimization of the expenditure on the crossings and bringing about uniformity of such proceedings across the country.

WHEREAS; in furtherance of the same, NOW THEREFORE, it is understood between the parties as under:

- I. SCOPE AND APPLICABILTY: The terms and conditions mentioned in this MoU will be applicable for complete network of NHAI's National Highways in National Highways Right of Way and IOCL's gas/petroleum pipeline(s) across the country.
- II. DESCRIPTION OF PURPOSE: This MOU is an understanding between the parties to express the mutual interest of the parties, within the framework of this MoU for amicable mutual interface for laying of gas/ petroleum pipeline(s) along and across National Highways Corridors and vice versa.

#### III. OBLIGATIONS, DUTIES AND UNDERTAKINGS OF NHAI

#### 1. In respect of already laid gas/ petroleum pipeline(s):

- a. Wherever, the alignment of a National Highway ("NH") crosses an already laid gas/ petroleum pipeline(s) (i.e., pipeline(s) existing prior to declaration of said National Highway vide relevant Notification), NHAI shall either construct portal structure(s) over the existing pipeline (as per Annexure-A) or cause shifting of such operating pipeline(s) at NHAI's cost under supervision of IOCL.
- b. NHAI will inform IOCL regarding upcoming alignment of National Highways over IOCL's existing gas/ petroleum pipeline(s) as soon as NHAI becomes aware of such operating pipeline(s) to expedite the interface related formalities. However, NHAI may explore possibilities of expediting the information to IOCL regarding crossing of National Highways to IOCL's existing gas/ petroleum pipeline(s) during the land acquisition stage to expedite the crossing related formalities.

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Page 3 of 10

- c. NHAI will try to maximize the crossing angle i.e., near to 90 Deg to IOCL's gas/petroleum pipeline(s).
- d. For crossing length exceeding 30m, NHAI to provide rectangular vent of minimum size, 3ft x 3ft in the RCC portal structure.
- e. NHAI will extend all possible support to IOCL during any exigency in IOCL's gas/ petroleum pipeline(s).
- f. Wherever, the alignment of an existing National Highway ("NH") crosses an already laid gas/ petroleum pipeline(s) (i.e., pipeline(s) laid after declaration of said National Highway vide relevant Notification), NHAI will allow IOCL to either shift or take suitable measures to protect its pipeline(s) at IOCL's cost within mutually agreed period of time upon receipt of notice from NHAI, if such pipeline obstructs the upgradation of the National Highway(s).

#### 2. In respect of laying of new gas/ petroleum pipeline(s):

- a. NHAI will issue NOC to IOCL for laying gas/ petroleum pipeline(s) along and across National Highways in National Highways land (Right of Way) in 60 days period from the date of formal application by IOCL. Beyond this period of 60 days, it is understood by both the parties that the NOC stands issued.
- b. NHAI shall not levy any charges from IOCL and its agencies for laying new gas/ petroleum pipeline(s) along or across National Highways in National Highways Right of Way.
- c. NHAI will obtain Performance Security from IOCL before issuance of permission for laying gas/ petroleum pipeline(s) along and across National Highways in National Highways land (Right of Way).
- d. NHAI will extend all possible support during any exigency in IOCL's gas/ petroleum pipeline(s) at crossing location of NHAI to IOCL.

#### IV. OBLIGATIONS, DUTIES AND UNDERTAKINGS OF IOCL

1. In respect of already laid gas/ petroleum pipeline(s):

a. Wherever, the alignment of a National Highway ("NH") crosses an already laid gas/

Page 4 of 10

petroleum pipeline(s) (i.e., pipeline(s) existing prior to declaration of said National Highway vide relevant Notification), IOCL will allow NHAI to either construct portal structures over the existing pipeline (as per **Annexure-A**) or cause shifting of such operating pipeline(s) at NHAI's cost under supervision of IOCL.

- b. Wherever, the alignment of an existing National Highway ("NH") crosses an already laid gas/ petroleum pipeline(s) (i.e., pipeline(s) laid after declaration of said National Highway vide relevant Notification), IOCL to either shift or take suitable measures to protect its pipeline(s) at IOCL's cost within mutually agreed time period upon receipt of notice by NHAI, if such pipeline obstructs the upgradation of the National Highway(s).
- c. IOCL will not levy any charges on NHAI for constructing National Highways over their already laid gas/ petroleum pipeline(s).
- d. IOCL will obtain Insurance Cover from NHAI before allowing construction of National
  Highways over their already laid gas/ petroleum pipeline(s).
- e. IOCL will issue NOC to NHAI whenever under construction National Highway crosses over an already laid gas/ petroleum pipeline(s) (i.e. pipeline(s) existing prior to declaration of said National Highway vide Notification) in 60 days period from the date of formal application by NHAI. Beyond this period of 60 days, it is understood by both the parties that the NOC stands issued.
- f. IOCL will extend all possible support during any exigency in NHAI's National Highways in National Highways Right of Way at crossing location of IOCL to NHAI.

#### 2. In respect of laying of new gas/ petroleum pipeline(s):

- a. IOCL, while laying gas / petroleum pipeline(s) across already constructed National Highways, will adopt Trenchless method throughout National Highways land (Right of Way) with the depth of topmost point of pipeline being at-least 1.5m below ground level/ bottom of any National Highway structure/ facility.
- b. IOCL shall bear all cost for laying of new pipeline along or across existing NH land (Right of Way).

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Page 5 of 10

- c. IOCL will try to maximize the crossing angle i.e., near to 90 Deg to NHAI's National Highways in National Highways Right of Way.
- d. IOCL will inform NHAI regarding crossing of IOCL's pipeline to National Highways during the land acquisition stage to expedite the crossing related formalities.
- e. IOCL will extend all possible support during any exigency in NHAI's National Highways in National Highways Right of Way at crossing location of IOCL to NHAI.

#### V. DEFINITIVE AGREEMENT:

- The Parties may enter into separate agreement(s) in terms of this MoU on specific work
  association of the parties for crossing permissions and shall identify inter alia the
  methodology of crossing, division of their individual scope of work, division of
  responsibilities and respective liabilities, expenses etc.
- Such definitive agreements would be binding on the parties and would be entered into generally as per the understanding contained in this MoU, upon approval by competent authorities of the parties.
- 3. In case of any contradiction/ discrepancy in any of the clauses of MoU and the definitive agreement(s), the definitive agreement shall prevail. However, clauses of the definitive crossing agreement (s) to be made in line with this MoU conditions for both the parties.

#### VI. NON-EXCLUSIVITY:

The understanding between the Parties under this MoU shall be initially on non-exclusive basis. However, the understanding shall be on exclusive basis contingent upon parties entering into definitive agreement as stipulated above.

#### VII. BINDING UNDERSTANDING:

 The Parties undertake to act in good faith with respect to each other's rights and obligations under the objectives of this MoU,

Page 6 of 10

- The Parties recognize the impracticality of providing for every contingency, which may arise
  during or after the expiry of the MoU and hereby agree to operate fairly and without detriment
  to the interests of either of them,
- Subject to any definitive agreements entered into, this MoU is binding in nature, and is a
  definite expression and record of the purpose and intention of the Parties concerned.

#### VIII. TRANSFER AND ASSIGNMENT

- 1. None of the Parties shall assign or transfer this MoU or any of its respective rights or obligations hereunder, to any other third party without the prior written consent of the other.
- 2. This consent requirement shall not apply in the event that a Party shall change its corporate name.

#### IX. DISPUTE RESOLUTION AND GOVERNING LAW:

- 1. This MoU will be construed and governed by the laws of India.
- Any dispute arising out of this MoU shall be amicably resolved in first instance, through
  discussions in good faith with a view to expeditiously resolve such differences or
  disputes in a spirit of mutual understanding and cooperation.
- 3. In the event of any dispute or difference relating to the interpretation and application of the provisions of this agreement, such dispute or difference shall be taken up by either party for resolution through AMRCD as mentioned in DPE OM No. 4(1)/2013-DPE (GM)/FTS-1835 dated 22.05.2018 issued by Ministry of Heavy Industries and Public Enterprises.

#### X. DURATION AND TERMINATION OF THIS MOU:

- 1. This MoU shall enter into force on the Effective Date.
- 2. This MoU shall remain in force for a period of three (3) years from the Effective Date (i.e. the date on which this MoU is signed).
- 3. The Parties may elect to extend the period of this MoU for an additional period of time or multiple periods of time as may be mutually agreed upon by the Parties in writing.
- 4. Each party has a right to terminate the MoU at any time during the validity of this MoU,

Page 7 of 10

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in writing, with at least one (1) month notice of such intention to the other party. However, the termination of this MoU shall not affect the actions that may have been formalized during its operation.

#### XI. CONFIDENTIALITY

- The Parties hereto agree that they will not at any time during the Term of this MoU, without the prior written consent of the other Party, disclose the existence of, or the terms and conditions set forth in this MoU unless otherwise required by law or regulation.
- 2. Only those individuals and representatives of the Parties, and their respective legal and financial advisors, with a need to know and for the sole basis of advising the respective Parties concerning the transactions contemplated hereby, shall be permitted to receive knowledge of the information contained herein.

#### XII. AMENDMENT

- 1. This MoU may be amended in writing by mutual agreement between the Parties.
- 2. Any such amendment shall enter into force from the date agreed to by the Parties.

#### XIII. NOTICES

- 1. Notices in connection with this MOU must:
  - a) Be in writing, in the English language.
  - b) All notices or other information required or deemed necessary to be given to:

#### i. For NHAI:

Name: Chairperson, NHAI

Address: NHAI 2<sup>nd</sup> Office Building, G-3, Sector-10, Dwarka, New Delhi-110075

Email Id: chairman@nhai.org, chairperson@nhai.org

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Page 8 of 10

#### For IOCL ii.

Name: Executive Director (Operations), PLHO

Address: Indian Oil Bhavan, A-1, Udyog Marg, Sector 1, Noida (UP)-201301

Email Id: edoplho@indianoil.in

c) Notices shall be delivered by courier or hand or sent by email to the respective addresses and email which are specified above or if the addressee specifies another address or email, in writing, then to that address or email.

#### XIV. COUNTER PARTS

This MoU shall be executed in two counterparts. Both Parties shall each have one counterpart of this MoU. Both counterparts shall constitute one and the same MoU.

In witness whereof, the undersigned being duly authorized thereto, by their respective parties, have signed this MoU.

Signed at NHAI, G-3, Sector 10, Dwarka, New Delhi on 8th June 2022 in two originals text in English language.

Signature...

Signed by: Udeep K Singhal

General Manager (Tech.) & Regional Officer, Delhi

For and on behalf of;

National Highway Authority of India

Signed by: Rajesh Gupta

Executive Director (Const.)

PLHO, Noida

For and on behalf of;

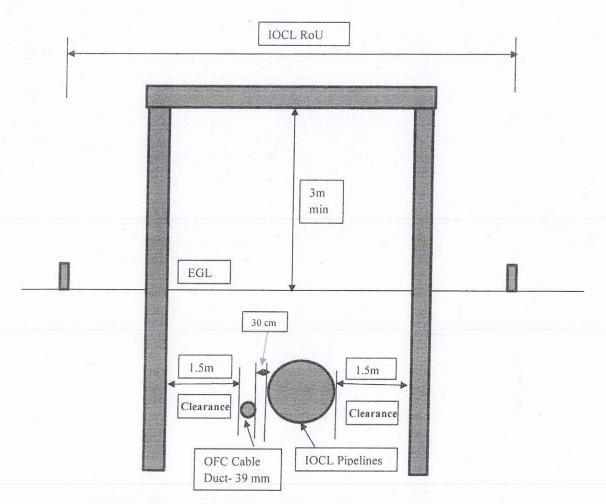
Indian Oil Corporation Limited

Witnesses:

Signed by Many Kumar Member (P)

Signature....

PLHO, Norda



#### PROPOSED RCC PORTAL STRUCTURE ACROSS IOCL'S ROU

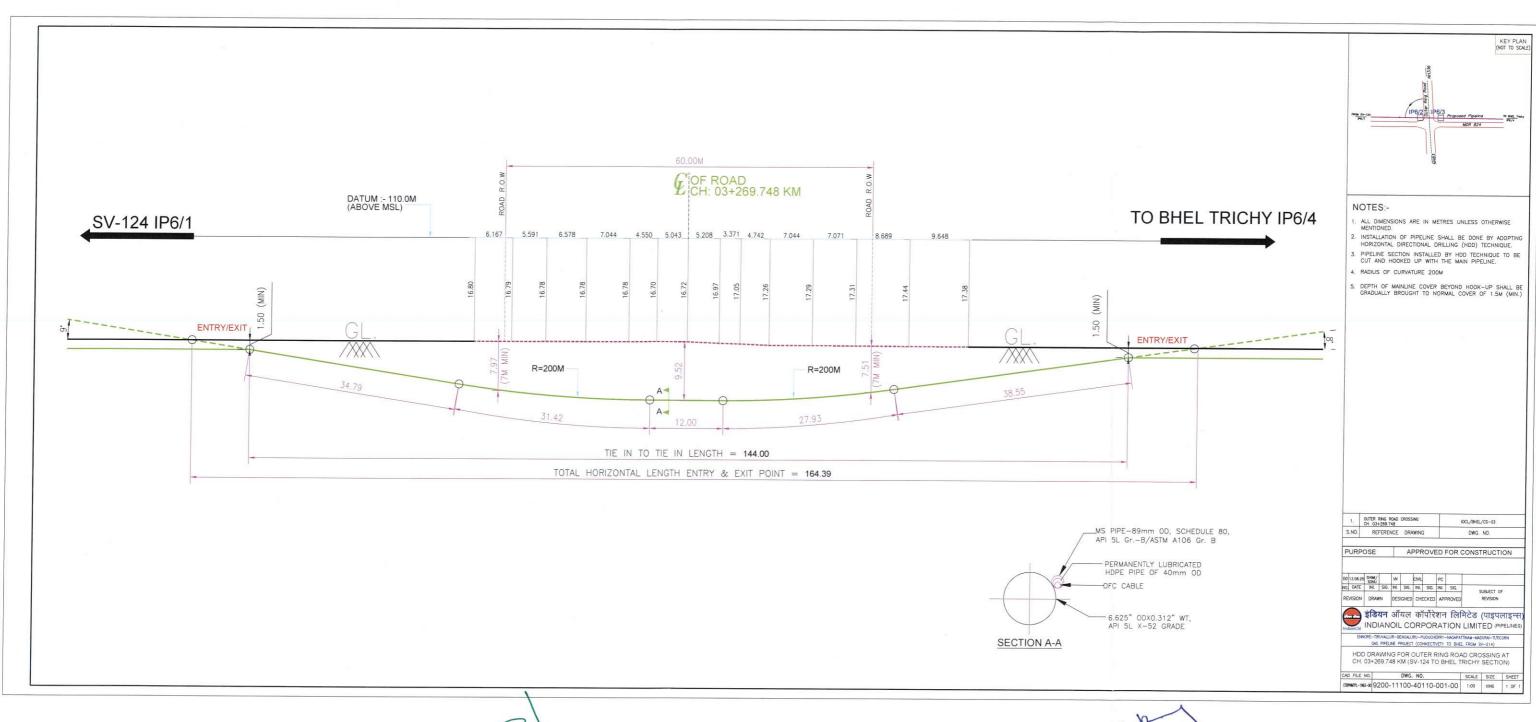
#### Note:

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- i. EGL- Existing Ground Level
- ii. Clearance of minimum 1.5 meter to be kept from outside edges of Pipeline and OFC as shown above
- iii. In case of multiple pipelines in the same ROU, single portal or more than one portal as per site condition can be built with minimum distance of 1.5-meter from outside edges of Pipeline and OFC as shown above

Page 10 of 10



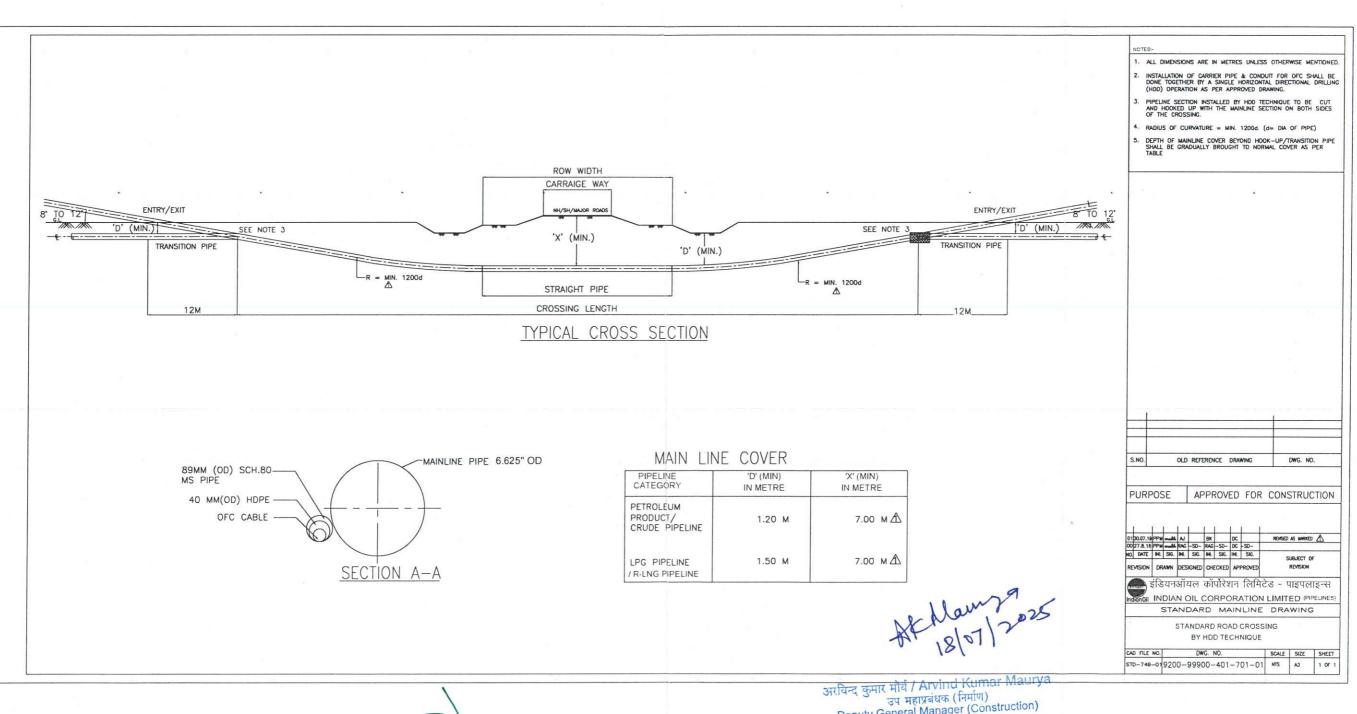
B. AROW PRASAD

DGM(T) & Project Director

National History Authority of India

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B. ARUN PRASAD
DGM(T) & Project Director
National Highways Authority of India
PIU - KARAIKUDI

अरिवन्द कुमार मोर्य / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction) इंडियन ऑयल कॉर्पोरेशन लिमिटेड Indian Oil Corporation Limited Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Road, Nungambakkam, Chennai - 600 034.

Application Details [20250705/2/14/38224/17036]				
Highway	NH83 [NH83]			
Name of Highway Authority				
Highway Administration Address				
Name of Applicant/Oil Company	Indian Oil Corporation Limited Address: Plot No 191, SIDCO Womens Industrial Estate, Valvandankottai, Thuvakudi, TIRUCHIRAPPALLI (TAMIL NADU), PIN: 620015 Phn: 9437581589 Email: manojk2@indianoil.in			
Application Category	Industrial Utility			
Utility	Pipelines			
State	TAMIL NADU			
Туре	New			
Remarks	Indian Oil R-LNG Pipeline			
Submitted On	09 Jul 2025 10:20:42			

Details					
1. Length in Meters *	60				
2. Width of available ROW					
I. Left side from center line towards increasing chainage OR km direction *	0.001				
II. Right side from center line towards increasing chainage OR km direction *	0.001				
3. Proposal to lay the utility	( )				
I. Left side from center line towards increasing chainage OR km direction *	0.001				
II. Right side from center line towards increasing chainage OR km direction *	0.001				
4. Proposal to acquire the land					
I. Left side from center line *	0				
II. Right side from center line *	0				
5. Whether proposal is in the same side where land is not to be acquired *	No				
If not then where to lay the cable *	NA				
6. Details of already laid services if any along the proposed route *	Nil				
7. Number of Existing lanes *	2 Lane				
8. Proposed number of lanes *	4 Lane				
9. Service road Exists *	No				
10. Proposed Service road					
Left side from center line	0				
Right side from center line	0				
11. Whether proposal to lay cable is after the service road or between the service road and main carriageway *	N/A				
12. Whether carrying OFC Cable has been proposed on highway /bridges, If yes then mention the methodology proposed for the same *	HDD Method proposed				
13. Is crossing of the road involved? If Yes, is shall be either encased in pipes or through structure of conduits specially built for the purpose at the expense of the agency owing the line *	Crossing through HDD method				
. Whether the existing drainage structures are allowed to carry utility pipeline. *	Yes				
I. Is it on a line normal to NH? *	Yes				

9/25, 10:37 AM	MoRTH Utility Portal
III. What is the distance of crossing the utility pipelines from the existing structure? Crossings shall not be too near the existing structures on the National Highway, the minimum distance being 15 mtrs. *	15.00
IV. The casing pipe (or conduit pipe in the case of electric cable) line carrying the utility line shall be of steel, cast iron or reinforced concrete and have adequate strength and be large enough to permit ready withdrawal of carrier pipe/cable Mention type of casting. *	No casing pipe
V. Ends of the casing/conduit pipe shall be sealed from outside, so that is does not act as a drainage path *	NA, HDD Method
VI. The casing/conduit pipe should be as minimum extend from drain in cuts toe of slope in fills. *	NA, HDD Method
VII. The installation of Casing pipe shall be as per attachment-1 of Ministry's Guidelines dated 22.11.2016 *	NA, HDD Method
VIII. Mention the methodology proposed for crossing of road for the proposed sewerage / gas pipeline	
crossing shall be boring method (HDD) (Trenchless Technology) specially where the existing road pavement is of cement concrete of dense bituminous concrete type. *	HDD Method
14. Whether the proposal satisfies the following:	· · · · · · · · · · · · · · · · · · ·
I. Where the ROW is more than 45 M then the duct cable shall be laid at the edge of right of way within the utility corridor of 2 M width, duly keeping in view the future widening. *	NA
II. Where land is yet to be acquired for 4 laning and the position of new carriageway has been decided then the cable shall be laid at the edge of right of way within the utility corridor of 2 M width, on that side of existing carriageway where extra land is not proposed to be acquired for 4 laning. *	NA

III. Where the widening plan for 4 laning is not yet decided and available ROW is around 30 M or less, a judicious decision would need to be taken for permitting the laying of cable/duct.  This could be within 1.5 M to 2m of utility corridor at the edge of existing ROW, duly keeping in view the possible widening plans. *	NA
IV. Where ROW is restricted and adequate only to accommodate the carriageway, central verge, shoulders and drains (e.g. Highways in cutting through hilly/rolling terrain), the cable shall be laid clear of the drain. *	NA
V. Where land strip for utility corridor can't be conveniently earmarked (available ROW restricted to the toe of the embankment) for laying of cable/ducts, the permission may be refused. *	NA
15. Document/Drawings enclosed with the proposal *	Yes
I. Cross section showing the size of trench for open trenching method (is it normal size of 1.2m (min.) deep x 0.3 wide) *	NA, HDD Method
II. Cross section showing the size of pit and location of cable for HDD method *	Yes
III. Strip plan/ Route plan showing the OFC, Chainage width of ROW, distance of proposed, cable from the edge of ROW, important mile stone, intersections, cross drainage works etc. *	Yes
IV. Methodology of laying of the Utility Pipeline/OFC *	Yes
V. Open trenching method (may be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type) If yes what is the Methodology of refilling of trench *	NA
(a) The trench width should be at least 30 cms but not more than 60 cms wider than the outer diameter of the pipe *	NA

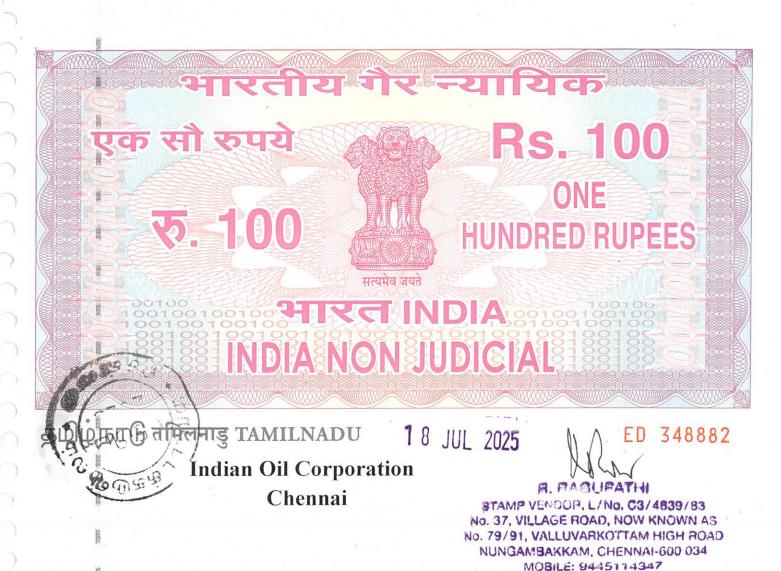
(b) For filling of the trench, bedding shall be to a depth of not less than 30 cms. It shall consist of granular material, free of lumps, clods, cobbles and graded to yiled firm surface without sudden change in the bearing value, unsuitable soil and rock edges should be excavated and replaced by selected material *	NA
(c) The backfill shall be completed in two stages, i) Side fill to the level of the top of the pipe and ii) Overfill to the bottom of the road crust *	NA
(d) The side fill shall consist of granular material laid in 15 cms, layers each consolidated by mechanical tampering and controlled addition of moisture to 95% of the proctor density. Overfill shall be compacted to the same density as the material that has been removed.	NA
(e) The road crust shall be built to the same strength as existing crust on either side of the trench. Care shall be taken to avoid the formation of a dip at the trench. *	NA
(f) The excavation shall be protected by flagman, signs and barricades and red lights during night hours. *	NA
(g) If required, a diversion shall be constructed at the expense of agency owing the utility line. *	NA
VI. Horizontal Directional Drilling (HDD)  Method *	Yes
VII. Laying OFC through CD Works and Method of laying (Whether to be hung outside parapet). *	NA
16. Draft license Agreement signed by two witnesses. *	Yes
I. The license fee estimate as per Ministry's guidelines issued vide circular no. RW/NH/33044/29/2015/S&R dated 22.11.2016. *	NA, As per MOM with NHAI
17. Whether Performance Bank Guarantee is as per Ministry's guidelines issued vide circular no. RW/NH/33044/29/2015/S&R, dated 22.11.2016.	No
I. Confirmation of BG has been obtained as per MoRTH guidelines *	No

18. Affidavit/Undertaking from the Application	ant for following is to be furnished	
a) Undertaking not to Damage to other utility, if damage then to pay the losses either to NHAI or the concerned agency. *		Yes
b) Undertaking Renewal of Bank Guarantee as and when asked by MoRTH. *		Yes
c) Undertaking Confirming all standard condition of Ministry's guidelines. *		Yes
d) Undertaking for indemnity against all damages and claims *		Yes
e) Undertaking for management of traffic movement during laying of utility line without hampering the traffic *		Yes
f) Undertaking that if any claim is raised by the concessionaire/ contractor then the same has to be paid by the applicant. *		Yes
g) Undertaking that prior approval of the NHAI shall be obtained before undertaking any work of installation, shifting or repairs, or alteration to the utility located in the National Highway Right of Ways. *		Yes
h) Undertaking that expenditure is any incurred by NHAI for repairing any damage cause to the NH by laying, maintenance of shifting of the utility line will be borne by the applicant agency owing the line.		Yes
i) Undertaking that text of the license deal is as per verbatim of format issued by MoRTH vide circular no. RW/NH/33044/29/2015/S&R dated 22.11.2016 *		Yes
j) Undertaking for shifting of utility as and when asked by MoRTH/ NHAI. *		Yes
k) Certificate from the applicant in the folk	owing format	
I) We do undertake that I/we will relocate s granted within such time us will be stipula		y/our own cost not withstanding the permission other development
19. Who will sign the agreement on behalf of Applicant agency? Power of Attorney to sign the agreement is available or not. *		Arvind Kumar Maurya
20. The Power of Attorney is in favour of authorized signatory? *		Yes

			Loca	tions		
Sno State		District	Highway /Stretch	Start Point	End Point	View
1	TAMIL NADU	TIRUCHIRAPPALLI	NH83 [NH83] (0-125) From Km: 117.98 To Km: 118	Chainage Point: 117.99 Lat: 104128.8 Lng: 784726.6	Chainage Point: 117.99 Lat: 104127.5 Lng: 784726.6	View

	Documents						
Sno Stage		Document	Mandatory	Action			
1	Under Submission	Layout and Drawings	Yes	View			
2	Under Submission	Any Other Supporting Document	No	View			
3	Under Submission	Any Document to indicate commercial activities are allowed on the land.	No	-			
4	Under Submission	Safety Clearance from Directorate of Electricity	No	-			
5	Under Submission	Safety Clearance from Chief Controller of Explosives	No				
6	Under Submission	Safety Clearance from Petroleum and Explosives Safety Organisation	No	_			
7	Under Submission	Safety Clearance from Oil Industry Safety Directorate	No	-			
8	Under Submission	Safety Clearance from State/Central Pollution Control Board	No				
9	Under Submission	Any Other Statutory Clearance as applicable	No				

Applicable Fee Details						
Sno	Fee Head	Stage	Fee	Amount	Status	
1	Utility Fees	Technical Approval	License Fees	1980.00		





# AGREEMENT REGARDING GRANTING OF RIGHT OF WAY PERMISSIONS FOR LAYING UTILITY SERVICES ON NATIONAL HIGHWAYS

Agreement to lay 6.625" OD Underground R-LNG pipelines along with Optical Fiber Cable (OFC) across Inner Ring Road (IRR) at Ch. 117/990 Km by Horizontal Directional Drilling method (HDD) in SooriyurVillage, Thiruverumbur Taluk, Trichy District.

This	Agreeme	ent ma	de this		day	of	(montl	n)	of
(year) bety	ween	acting	in	his	execu	itive ca	apacity	through	
(hereinafte	er referred	to as	the "Auth	nority" w	hich	expression	shall u	nless excluded	by or
repugnant	to the con	ntext, in	clude his	successo	rs in	office and	assigns)	on the one pa	rt, and
M/s India	n Oil Corp	oration	Ltd, Sout	hern Reg	gion P	Pipelines, C	hennai,	a company reg	istered
under	the	Com	panies	Act,		1956	and	having	its
Registered	Office	at (h	ereinafter	called	the	"Licensee	") whic	ch expression	shall

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Page 1 of 9

shall unless excluded by repugnant to the context, include his successors/administrator assignees on the second part.

Whereas the Authority is responsible, inter-alia, for development and maintenance of lands in Trichy Outer Ring road (NH 83) RoW.

Whereas the Licensee proposes to lay Telecom cable / OFC cable / electrical cable/pipe line/ducts etc. referred to as utility services in subsequent paras.

Whereas the Licensee has applied to the Authority for permission to lay utility services across Trichy Outer Ring Road (NH 83) at Ch. 117/990 Km by Horizontal Directional Drilling method (HDD) in Sooriyur Village, Thiruverumbur Taluk, Trichy District and whereas the Authority has agreed to grant such permission for way leave on the NH RoW as per terms and conditions hereinafter mentioned.

Now this agreement witnesses that in consideration of the conditions hereinafter contained and on the part of the Licensee to be observed and performed, the Authority hereby grants to the Licensee permission to lay utility services as per the approved drawing attached hereto subject to the following conditions, namely.

1. RoW permissions are only enabling in nature. The purpose of extending the way leave facility on the National Highway RoW is not for enhancing the scope of activity of a utility service provider, either by content or by intent. Further, enforceability of the permission so granted shall be restricted only to the extent of provisions/scope of activities defined in the license agreement & for the purpose for which it is granted.

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- 2. No Licensee shall claim exclusive right on the RoW and any subsequent user will be permitted to use the RoW, either above or below, or by the side of the utilities laid by the first user, subject to technical requirements being fulfilled. Decision of the Authority in relation to fulfillment of technical requirements shall be final and binding on all concerned parties. In case any disruption/damage is caused to any existing user by the subsequent user, the Authority shall not be held accountable or liable in any manner.
- 3. The Licensee shall be responsible for undertaking all activities including, but not limited to site identification, survey, design, engineering, arranging finance, project management, obtaining regulatory approvals & necessary clearances, supply of equipment, material, construction, erection, testing and commissioning, maintenance and operation and all other activities essential or required for efficient functioning of their own utility/ industrial infrastructure facilities.
- 4. The Licensee shall pay license fees @ Rs ................/sq m /month to the Authority. The License fee shall become payable from the date of handing over of RoW land to the Licensee, for laying of utilities/cables/conduits/pipelines for infrastructure/ service provider. As regards Tariff and Terms and conditions for providing common utility ducts along National Highways, there shall be a separate agreement regime.
- 5. Fee shall have to be paid in advance for the period for which permission is granted

At 18/07/2005

for entering into a license agreement. In case of renewal, rate prevailing at the time of renewal shall be charged. Delay in deposition of fee shall attract interest @ 15% per annum compounded annually.

- 6. Present policy of the MoRTH is to provide a 2.00 m wide utility corridor on either side of the extreme edge of RoW. In cases where utility ducts with sufficient space are already available along NH, the utility services shall be laid in such ducts subject to technical requirements being fulfilled.
- 7. The utility services shall be laid at the edge of the RoW. In case of restricted width of RoW, which may be adequate only to accommodate the carriageway, central verge, shoulders, slopes of embankment, drains, other road side furniture etc; the utility services shall be laid beyond the toe line of the embankments and clear of the drain.
- 8. The Licensee shall make his own arrangement for crossing of cross drainage structure, rivers, etc. below the bed. In case, this is not feasible, the utility services may be carried outside the railings/parapets and the bridge superstructure. The fixing and supporting arrangement with all details shall be required to be approved in advance from the concerned Highway Administration. Additional cost on account of fixing and supporting arrangement as assessed by the Authority shall be payable by the Licensee.
- 9. In exceptional cases, where RoW is restricted the utility services can be allowed beneath the carriageway of service road, if available, subject to the condition that the utility services be laid in concrete ducts, which will be designed to carry traffic on top. The width of the duct shall not be less than one lane. In such cases, it also needs to ensure that maintenance of the utility services shall not interfere with the safe and smooth flow of traffic. The cost of operation and maintenance will have to be borne by the Licensee.

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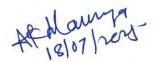
SOUTHERN

REGION

- It is to be ensured that at no time there is interference with the drainage of the road land and maintenance of the National Highways. Towards this, the top of the utility services shall be at least 0.6 metre below the ground level. However, any structure above ground shall be aesthetically provided for / landscaped with required safety measures as directed by the concerned Authority;
- 11. The utility services shall be permitted to cross the National Highway either through structure or conduits specially built for that purpose. The casing / conduit pipe should, as minimum, extend from drain to drain in cuts and toe of slope to toe of slope in the fills and shall be designed in accordance with the provision of IRC and executed following the Specifications of the Ministry.
- 12. Existing drainage structures shall not be allowed to carry the lines across.
- 13. The top of the casing/conduit pipe containing the utility services to cross the road shall be at least 1.2m below the top of the sub grade or the existing ground level whichever is lower, subject to being at lease 0.3m below the drain inverts. A typical sketch showing the clearances is given in Attachment-I.

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- 14. The utility services shall cross the National Highway preferable on a line normal to it or as nearly so as practicable.
- 15. The casing/conduit pipe for crossing the road may be installed under the road embankment either by boring or digging a trench. Installation by boring method shall be preferred.
- 16. In case of trenching, the sides of the trench should be done as nearly vertical as possible. The trench width should be at least 30 cm. but not more than 60 cm wider than the outer diameter of the pipe. Filling of the trench shall conform to the specifications contained here-in-below or as supplied by the Highway Authority.
  - a. Bedding shall be to a depth not less than 30 cm. It shall consist of granular material, free of lumps, clods and cobbles, and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edges should be excavated and replaced by selected material.
  - b. The backfill shall be completed in two stages (i) Side-fill to the level of the top of the pipe (ii) Overfill to the bottom of the road crust.
  - c. The side fill shall consist of granular material laid in 15 cm. Layers each consolidated by mechanical tamping and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted.
  - d. The road crust shall be built to the same strength as the existing crust on either side of the trench or to thickness and specifications stipulated by the Highway Authority.
- 17. The Licensee shall ensure making good the excavated trench for laying utility services by proper filling and compaction, so as to restore the land in to the same condition as it was before digging the trench, clearing debris/loose earth produced due to execution of trenching at least 50m away from the edge of the right of way;
- 18. All required restoration work subsequent to laying of the cable shall be required to be undertaken by the Licensee at its cost either by itself or through its authorized representative in consultation with the Authority as per predetermined time schedule and quality standards.
- 19. Prior to commencement of any work on the ground, a performance Bank Guarantee @ Rs. per route metre / Rs per sq m with a validity of one year initially (extendable if required till satisfactory completion of work) shall have to be furnished by the Licensee to the Authority/its designated agency as a security against improper restoration of ground in terms of filling/unsatisfactory compaction damages caused to other underground installations/utility services & interference, interruption, disruption or failure caused thereof to any services etc. In case of the Licensee failing to discharge the obligation of making good of the





excavated trench/other restoration work, the Authority shall have a right to make good the damages caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee.

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SOUTHERN REGION PIPELINES

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- 20. In case, the Performance Bank Guarantee is invoked as mentioned above, the Licensee shall be required to replenish and reinstate the required Performance Bank Guarantee within one month of such invoking. In case the work contemplated herein is not completed to the satisfaction of the Authority, which has granted the permission, within a period of 11 months from the date of issue of the Bank Guarantee, the Licensee shall either furnish a fresh guarantee or extend the guarantee for a further period of one year. Notwithstanding this, the Licensee shall be liable to pay full compensation to the aggrieved Authority/ its designated agency for any damage sustained by them by reason of the exercise of the RoW facility;
- 21. The Licensee shall shift the utility services within 90 days (or as specified by the respective Authority) from the date of issue of the notice by the concerned Authority to shift/relocate the utility services, in case it is so required for the purpose of improvement/widening of the road/route/highway or construction of flyover/bridge and restore the road/land to its original condition at his own cost and risk.
- 22. The Licensee shall be responsible to ascertain from the respective agency in coordination with Authority, regarding the location of other utilities /underground installations/ facilities etc. The Licensee shall ensure the safety and security of already existing underground installations/utilities/facilities etc. before commencement of the excavation/using the existing cable ducts. The Licensee shall procure insurance from a reputed insurance company against damages to already existing underground installations/utilities/facilities etc.
  - The Licensee shall be solely responsible/ liable for full compensation/indemnification of concerned agency / aggrieved Authority for any direct, indirect or consequential damage caused to them/claims or replacements sought for, at the cost and risk of the Licensee. The concerned agency in coordination with Authority shall also have a right make good such damages/ recover the claims by forfeiture of Bank Guarantee.
- 24. If the Licensee fails to comply with any condition to the satisfaction of the Authority, the same shall be executed by the Authority at the cost and risk of the Licensee.
- 25. Grant of License is subject to the Licensee satisfying (a) minimum disruption of traffic and (b) no damage to the highways. As far as possible, the Licensee should avoid cutting of the road for crossing highway, and other roads and try to carry out the work by trenchless technology. In case any damage is caused to the road pavement in this process, the Licensee will be required to restore the road to the original condition at its cost. If due to unavoidable reasons the road needs to be cut for crossing or laying utility services, the Licensee has to execute the restoration

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work in a time bound manner at its cost either by itself or through its authorized representative in consultation with the Authority as per predetermined time schedule and quality standards. In case of the Licensee failing to discharge the obligation of making good of the excavated trench/other restoration work, the Authority shall have a right to make good the damages caused by excavation, at the cost of the Licensee and recover the amount by forfeiture of the Bank Guarantee

- 26. The Licensee shall inform/give a notice to the concerned agency designated by the Authority at least 15 day in advance with route details prior to digging trenches, for fresh or maintenance/repair works. A separate performance Bank Guarantee for maintenance/repair works shall have to be furnished by the Licensee.
- 27. Each day, the extent of digging the trenches should be strictly regulated so that utility services are laid and trenches filled up before the close of the work that day. Filling should be completed to the satisfaction of the concerned agency designated by the Authority.
- 28. The licensee shall indemnify the concerned agency in co-ordination with Authority, against all damages and claims, if any due to the digging of trenches for laying cables/ducts.

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- 29. The permission for laying utility services is granted maximum for 5 years at a time, which can thereafter be considered for renewal. On payment of additional fee at the time of renewal, the permission shall automatically be renewed, unless defaults exist. In case of renewal, rate prevailing at the time of renewal shall be charged. Delay in deposition of fee shall attract interest @ 15% per annum pipelines.
  - 30. The permission shall be valid only for the period it is issued and fee deposited. However, the Authority also has a right to terminate the permission or to extend the period of Agreement.
  - 31. That the Licensee shall not undertake any work of shifting, repairs or alterations to the utility services without prior written permission of the concerned agency in coordination with the Authority.
  - 32. The permission granted shall not in any way be deemed to convey to the Licensee any ownership right or any interest in route/road/highway land /property, other than what is herein expressly granted. No use of NH RoW will be permitted for any purpose other than that specified in the Agreement.
  - 33. During the subsistence of this Agreement, the utility services located in highway land / property shall be deemed to have been constructed and continued only by

Athanya 18/07/2005 the consent and permission of the Authority so that the right of the Licensee to the use thereof shall not become absolute and indefeasible by lapse of time.

- 34. The Licensee shall bear the Stamp Duty charged on this Agreement.
- 35. Three copies of 'as laid drawings' of utilities (hard and soft copies) with geotagged photographs and geo-tagged video recordings of laying of cables in the trench (with respect to the NH) and after complete restoration shall be submitted to the Authority for verification and record within a month of completion of works.
- 36. The Licensee shall allow free access to the Site at all times to the authorized representatives of Authority to inspect the Project Facilities and to investigate any matter within their Authority, and upon reasonable notice, shall provide reasonable assistance necessary to carry out their respective duties and functions.
- 37. The utility services shall not be made operational by the Licensee unless a completion certificate to the effect that the utility services has been laid in accordance with the approved specifications and drawings and the trenches have been filled up to the satisfaction of the concerned agency in co-ordination with the Authority has been obtained. Notwithstanding anything contained herein, this Agreement may be cancelled at any time by Authority for breach of any condition of the same and the Licensee shall neither be entitled to any compensation for any loss caused to it by such cancellation not shall it be absolved from any liability already incurred.
- 38. The Licensee shall ensure adherence to relevant Indian standards and follow best industry practices, methods and standards for the purpose of ensuring the safe, efficient and economic design, construction, commissioning, operation, repair and maintenance of any part of the utility lines/industrial infrastructure facilities and which practices, methods and standards shall be adjusted as necessary, to take account of:
  - a. operation, repair and maintenance guidelines given by the manufacturers,
  - b. the requirements of Law.

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SOUTHERN REGION PIPELINES

- c. the physical conditions at the Site, and
- d. The safety of operating personnel and human beings.
- 39. The Licensee shall have to provide safety measures like barricading, danger lighting and other necessary caution boards while executing the work.
- 40. While laying utility services, at least one lane of road shall be kept open to traffic at all times. In case of single lane roads, a diversion shall be constructed. If any traffic diversion works are found necessary during the working period such diversion shall be provided at the cost of Licensee.
- 41. After the termination/expiry of the agreement, the Licensee shall remove the utility services within 90 days and the site shall be brought back to the original condition failing which the Licensee will lose the right to remove the utility services. However before taking up the work of removal of utility services the Licensee

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shall furnish a Bank Guarantee to the Authority for a period of one year for an amount assessed by the Authority as a security for making good the excavated trench by proper filling and compaction, clearing debris, loose earth produced due to excavation of trenching at least 50m away from the edge of the RoW.

- 42. Any disputes in interpretation of the terms and conditions of this Agreement or their implementation shall be referred to the redress mechanism prevailing in the Ministry and the decision of the redress mechanism shall be final and binding on all.
- 43. For PPP Projects, in case of any financial loss incurred by the respective project concessionaires due to such laying/shifting of utility services by the Licensee, compensation for the same shall be required to be borne by the Licensee in mutual 2PORA agreement with the respective project concessionaires. SOUTHERN implementing authorities for the project shall not be liable to the concessionaire in any way in this regard. PIPELINES

This agreement has been made in duplicate, each on a Stamp Paper, Each party to this Agreement has retained one stamped copy each.

WITNESS WHEREOF THE PARTIES HERETO HAVE CAUSED THIS AGREEMENT TO BE EXECUTED THROUGH THEIR RESPECTIVE REPRESENTATIVES AUTHORISED THE DAY AND THE YEAR ABOVE WRITTEN.

BY SHRI			
Signature, name & addre	ess with stamp)		
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CICNED CEALED AND DELIVEDED FOR AND ON DELIALE OF AUTHORITY

BY SHRI

(Signature, name & address with stamp)

CORPORATION LTD.

REGION

अरविन्द कुमार मौर्य / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction) इंडियन ऑयल कॉर्पोरेशन लिमिटेड Indian Oil Corporation Limited Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Roade 8 of 9

Nungambakkam, Chennai - 600 034.

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HOLDER OF GENERAL POWER OF ATTORNEY DATED

EXECUTED IN ACCORDANCE WITH THE RESOLUTION NO.

DATED PASSED BY HTE BOARD OF DIRECTORS IN THE

MEETING HELD ON

IN THE PRESENCE OF (WITNESSES):

1. R. King

कोड्रुरु गणेश कुमार

KODURU GANESH KUMAR
प्रवालन प्रवंधक L Operations Manager
इंडियन ऑयल कॉर्पोरेशन लिमिटेड
Indian Oil Corporation Limited

Southern Region Pipelines
Plot No.191, SIDCO Women's Industrial Estate,

Valavandan Kottai, Thuvakudi, Trichy - 620 015.

के मनोज कुमार
K MANOJ KUMAR
निर्माण प्रबंधक / Construction Manager
इंडियन ऑयल कॉर्पोरेशन लिमिटेड
Indian Oil Corporation Limited
Southern Region Pipelines
Plot No.191, SIDCO Women's Industrial Estate,
Valavandan Kottai, Thuvakudi, Trichy - 620 015.



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Indian Oil Corporation Chennai

STAMP VENDOR, L/No. C3/4839/83
No. 37, VILLAGE ROAD, NOW KNOWN AS
No. 79/91, VALLUVARKOTTAM HIGH ROAD
NUNGAMBAKKAM, CHENNAI-600 034
MOBILE: 9445114347

# **UNDERTAKINGS**

behalf of **Indian Oil Corporation Limited**, the following undertakings are hereby made in relation to the laying of the underground R-LNG pipeline across the National Highway under the jurisdiction of the National Highways Authority of India (NHAI):

- 1. Indian Oil Corporation Limited (hereinafter referred to as "IOCL") shall be solely responsible for ensuring the safety and protection of all existing underground utilities, including but not limited to electric cables, water supply pipelines, gas and sewage lines, during trenching and related operations.
- 2. IOCL shall ensure the timely renewal of the Performance Bank Guarantee as and when requested by the Ministry of Road Transport and Highways (MoRTH), in full compliance with the applicable terms, conditions, and guidelines issued from time to time, without delay or default.
- 3. IOCL shall provide a minimum of fifteen (15) days' prior written notice to the concerned NHAI officer before the commencement of any work.

Page 1 of 3

- 4. IOCL shall not undertake any shifting, repair, or alteration work on the laid pipeline without obtaining prior written approval from the concerned officer of the NHAI.
- 5. NHAI shall not be held liable for any damage to the underground R-LNG pipeline or arising therefrom due to its activities on the permitted highway. IOCL acknowledges and agrees that the pipeline is being laid at its sole risk and cost.

- 6. IOCL shall duly restore the excavated trench by proper refilling and compaction to reinstate the land to its original condition. All debris and loose earth resulting from trenching shall be cleared to the satisfaction of NHAI.
- 7. In the event of any accident during execution or completion of the work, IOCL shall be solely and fully responsible for all consequences, including damages and liabilities arising therefrom.
- 8. IOCL undertakes to fully comply with all directions issued by the designated NHAI officer in accordance with the provisions of the National Highways Act, 1956 and any rules made thereunder.
- 9. IOCL undertakes to relocate any service road, approach road, or utility lines at its own cost, as and when directed by NHAI, irrespective of any prior permissions granted.
- 10. IOCL shall take all necessary precautions to avoid damage to other existing utilities. In the event of any such damage, IOCL shall bear the cost of all consequential losses or repair, payable either to NHAI or the concerned utility agency.

SOUTHERN LIOCL agrees to indemnify and hold harmless NHAI against any and all claims, damages, or precions diabilities arising under Clause (xxiv) of the license agreement or otherwise due to IOCL's activities.

In the event any claim is raised by the concessionaire of the project highway due to IOCL's actions or omissions, IOCL shall be fully liable for such claim and shall make payment accordingly.

- 13. Any expenses incurred by NHAI for the repair of damages caused to the highway infrastructure due to the laying, maintenance, or shifting of the pipeline shall be fully reimbursed by IOCL.
- 14. IOCL agrees that, if in the future NHAI requires relocation of the pipeline for the purpose of road improvement or repair, such relocation shall be carried out by IOCL at its own cost within nine months of receiving such intimation from NHAI.
- 15. IOCL undertakes that the laying of the R-LNG pipeline shall not cause any deleterious effects on the structural components of bridges or compromise roadway safety for traffic.
- 16. IOCL undertakes to relocate any service roads, approach roads, or utilities at its own expense, notwithstanding prior permissions granted, within the time stipulated by NHAI for future four-laning or other highway development works.

Page 2 of 3

At 18/07/2015

- 17. All restoration work post-trenching shall be executed by IOCL, Southern Region Pipelines, Trichy to the complete satisfaction of NHAI.
- 18. IOCL confirms that the license agreement text has been prepared strictly in accordance with the format prescribed by MoRTH under Circular No. RW/NH/33044/29/2015/S&R dated 22.11.2016, without any deviation or alteration.

(For and on behalf of Indian Oil Corporation Limited)



अरविन्द कुमार मौर्य / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction) इंडियन ऑयल कॅग्पेरिशन लिमिटेड Indian Oil Corporation Limited Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Road, Nungambakkam, Chennai - 600 034.



Indian Oil Corporation Chennai

9TAMP VENDOR, L/No. G3/4839/83 No. 37, VILLAGE ROAD, NOW KNOWN AS No. 79/91, VALLUVARKOTTAM HIGH ROAD NUNGAMBAKKAM, CHENNAI-600 034 MOBILE: 9445114347

#### **UNDERTAKINGS**

We, Indian Oil Corporation Limited (IOCL) do hereby undertake the following:

- 1. That we shall duly pay all applicable fees, charges, and/or rent as and when demanded by the National Highways Authority of India (NHAI), in accordance with the terms and conditions of the Memorandum of Understanding (MoU) executed between NHAI and IOCL, effective from 08.06.2022, and in strict compliance with the provisions of NH Circular No. RW/NH/33044/29/2015/S&R dated 22.11.2016, without any delay or default.
- 2. That we shall furnish the requisite Performance Bank Guarantee (PBG) in accordance with the guidelines and stipulations issued by the Ministry of Road Transport and Highways (MoRTH), as specified under the aforementioned circular, without any delay or deviation.

(For and on behalf of Indian Oil Corporation Limited)

अर.बिन्द कुमार मौर्य / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction)

इंडियन ऑयल कॉर्पोरेशन लिमिटेड Indian Oil Corporation Limited

Southern Region Pipelines
"House of Four Frames" 6/13, Wheatcroft Road,
Nungambakkam, Chennal - 600 034.

Page 1 of 1





# इंडियन ऑयल कॉपेरिशन लिमिटेड

दक्षिणी क्षेत्र पाइपलाइन्स हाउस ऑफ फोर फ्रेम्स

6/13, व्हीट क्राफ्ट रोड, न्ंगमबाक्कम, चैन्नै - 600 03

दूरभाष : 044-2824 3129 / 3144

IndianOil

## Indian Oil Corporation Limited

Southern Region Pipelines House of Four Frames 6/13, Wheat Croft Road, Nungambakkam, Chennai - 600 034.

Tel: 044-2824 3129 / 3144

पाइपलाइन्स प्रभाग Pipelines Division

## **CERTIFICATE**

This is to certify that:

- The proposed work, upon implementation, shall in no manner affect the design, structural stability, or traffic safety of the National Highway.
- The implementation of the proposal at this stage shall not impede or adversely impact any future improvements or modifications to the geometric design of the highway.
- 3. The proposal fully complies with the specifications and guidelines prescribed by the Ministry of Surface Transport, as per Letter No. RW/NH-33041/17/2000-SNR dated 29.09.2000, and shall be executed without causing any obstruction or inconvenience to traffic movement on the road.
- 4. It is further certified that a detailed inspection of the site has been conducted by us, and it is confirmed that the proposed activity shall not create any hindrance to the future development or expansion of the National Highway.

(For and on behalf of Indian Oil Corporation Limited)

अरविन्द कुमार मौर्य / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction)

At 18/07/2015

इंडियन ऑयल कॉर्पोरेशन लिमिटेड Indian Oil Corporation Limited

Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Road, Nungambakkam, Chennai - 600 034.

#### METHODOLOGY OF CROSSING

The method of crossing the National Highway Road is by Horizontal Directional Drilling method (HDD) which is a Trenchless method. In this method, the pipelines which is of size 6.625" dia. confirming to API 5L X-52 grade and Coated with 3LPE are laid across the NH. The carrier pipelines are bundle pulled underground by HDD method, maintaining a clear depth (As specified in the drawing) from the top of the subgrade. The duct for OFC is also laid along with this pipeline by the same method. The pits of size 2m x 2m x 1.5m for carrying out HDD are laid away from the ROW of NH. The detailed procedure is given below:

#### **DESIGN & ENGINEERING**

- i) The limits of each crossing shall be determined on the basis of crossing profile, design, equipment, installation techniques and site condition.
- ii) Within the entire limits of crossing, the cover to top of coated pipe shall be as specified in the crossing drawing enclosed.
- iii) The entry and exit points of the pipeline at ground level shall not come within the limits of crossing as defined in the crossing drawings.
- After installation, the pipeline shall be hydrostatically tested at a pressure stipulated in the contract. During hydrostatic testing, the combined equivalent stress in the pipeline due to bending and test pressure shall not exceed 95% of the SMYS of pipe material. Permissible values of maximum equivalent stress during service shall be governed by the requirements of ANSI B 31.8/B 31.4, as applicable.

# CONSTRUCTION

- i) Complete pipe string shall be prepared as a single string for pulling. Welding, radiographic inspection of joints and joint coating of the string shall be performed in accordance with the standard IOCL specifications.
- ii) The complete pipe string shall be hydrostatically pre-tested before installation as per the approved procedure for a minimum period of 4 hours. Joint coating of the welds shall be done after this pre-test.
- Before pre and post installation hydrostatic testing, gauging of the pipeline shall be done by passing a gauging pig through the pipeline. The gauging pig shall have a diameter equal to 95% of the nominal internal diameter of the pipe. Necessary temporary scraper launchers/ receivers and other equipment for piping shall be installed.
- iv) The lateral offset of the actual exit point of the pilot hole from the calculated and theoretical exit point shall not exceed half per cent (0.5%) of the length of the crossing.
- v) The length tolerance shall not exceed one per cent of the crossing length, subject to the condition that the actual exit point shall not be within the limits of crossing as defined in the drawings.
- vi) Back reaming shall be done separately from the pipeline pulling operation. The size of the back-reamed hole shall be adequate to allow enough clearance for a smooth pull-back of the pipeline.
- vii) The drilled hole shall be maintained till such time the pipeline is pulled in.

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Page 1 of 2

- viii) Bentonite slurry of specified viscosity shall be pumped into the hole, preventing the wall from collapsing and protecting the pipeline coating.
- ix) The integrity of the corrosion coating shall be maintained.

The complete crossing section shall be tested after installation. The test pressure shall be as stipulated in the Contract. After temperature stabilization, pressure shall be retained in the pipeline for a period of 24 hours and recorded by manothermograph. The hydrostatic testing shall be carried out in accordance with approved procedures and specifications detailed elsewhere in the document.

After completion of construction, the site shall be cleaned from balance material and debris and bentonite slurry.

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अरविन्द कुमार मौर्य / Arvind Kumar Maurya उप महाप्रबंधक (निर्माण) Deputy General Manager (Construction) इंडियन ऑयल कॅग्पीरेशन लिमिटेड Indian Oil Corporation Limited Southern Region Pipelines "House of Four Frames" 6/13, Wheatcroft Road, Nungambakkam, Chennai - 600 034.