



## **Annexure-1**

**(PROJECT SCOPE OF WORK -DOCUMENT NO.  
C261162 CGD PL BSOW 002)**


 ENERGISING QUALITY		<b>PROJECT NUMBER: C261162</b>				
<b>PROJECT SCOPE OF WORK</b>				<b>Total Sheets</b>		<b>05</b>
<b>Document No</b>	C261162	CGD	PL	BSOW	002	
<p><b>HPOIL GAS PRIVATE LIMITED (HOGPL)</b></p> <p><b>CITY GAS DISTRIBUTION PROJECT AT GEOGRAPHICAL AREAS NAGALAND GA</b></p> <p><b>SCOPE OF COMPOSITE WORK OF (MECHANICAL&amp;ELECTRICAL WORKS) AT CNG OLS &amp; DBS STATIONS (12 Nos. of DBS STATIONS &amp; 3 Nos. of OLS STATIONS AT NAGALAND GA PROJECT AT NAGALAND GA</b></p>						
C1	07.01.2026	Issued for Client Review	AS	PA	DK	
<b>Rev</b>	<b>Date</b>	<b>Description</b>	<b>Prepared By</b>	<b>Checked By</b>	<b>Approved By</b>	



## CITY GAS DISTRIBUTION PROJECT AT GEOGRAPHICAL AREAS OF NAGALAND GA

### TABLE OF CONTENTS

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>3</b>
<b>2</b>	<b>MECHANICAL.....</b>	<b>3</b>
<b>3</b>	<b>ELECTRICAL.....</b>	<b>4</b>

	<b>COMPOSITE WORK OF (MECHANICAL &amp; ELECTRICAL WORKS) AT CNG OLS &amp; DBS STATIONS (12 Nos. of DBS STATIONS &amp; 3 Nos. of OLS STATIONS AT NAGALAND GA</b>	<b>Document No.</b>	<b>Rev</b>
		C261162 -00-PP-BSOW-001	00
		Page 2 of 5	



## CITY GAS DISTRIBUTION PROJECT AT GEOGRAPHICAL AREAS OF NAGALAND GA

### 1.0 INTRODUCTION

M/s. HPOIL Gas Private Limited (HOGPL) is in the process of starting to setup City Gas Distribution (CGD) Network for the Geographical area of Nagaland state.

### 2.0 PROJECT SCOPE OF WORK

The scope of work includes **COMPOSITE WORK OF CNG STATIONS** at NAGALAND GA.

The scope of work includes, MECHANICAL and ELECTRICAL Works.

#### 2.1 MECHANICAL


This document covers the details of supply and installation of mechanical equipment at CNG Stations at NAGALAND GA. It includes installation of Cascades, and supply and installation of Fire extinguisher and trailer panel etc. All works and clauses of this document shall be applicable unless specifically mentioned otherwise.

This document shall be read in conjunction with Schedule of Rates, specifications, standards, drawings, and other documents forming a part of the Tender Document.

##### 2.1.1 The scope of work given below: -

- Supply & Installation of Above Ground Piping
- Supply and installation of all fittings
- Welding, Radiography, Painting etc.
- Supply and installation Fire Fighting Equipment
- Supply & Installation of Signage Board.
- Supply and Installation of LCV Filling facility (Trailer Panel) with mass flow meter, flow range (0 to 100 kg/min) along with associated fittings & consumables - 1 Nos at each station.
- Supply, erection, laying, testing and safely commissioning of SS tubing, fittings, Ferrules, and valves and necessary adaptors, clamps, brackets etc., as required from compressor priority panel to mobile cascade, stationary cascade, DRS and dispenser of Online stations as per the tentative quantities mentioned in the SOR, Standard technical specifications of the SS tube and Fittings.

For Detail Scope of Work, please refer Doc No. - C261162-00-PP-SOW-001 in Mechanical Tender Document

 ENERGISING QUALITY	<b>COMPOSITE WORK OF (MECHANICAL &amp; ELECTRICAL WORKS) AT CNG OLS &amp; DBS STATIONS (12 Nos. of DBS STATIONS &amp; 3 Nos. of OLS STATIONS AT NAGALAND GA</b>	<b>Document No.</b>	<b>Rev</b>
		C261162 -00-PP-BSOW-001	00
		Page 3 of 5	



## CITY GAS DISTRIBUTION PROJECT AT GEOGRAPHICAL AREAS OF NAGALAND GA

### 2.2 ELECTRICAL

2.2.1 The scope of work given below: -


2.2.1.1 Supply & Installation of 11/0.415 kV, copper wound Distribution Transformer complete with accessories and systems as mentioned below.

- Distribution Transformer (as per SOR) with Double Pole, Gang switch, overhead Conductor of suitable rating and all necessary accessories for completion of work including tapping from existing HT line etc. complete as per specification, SOR and requirement of approval from respective electricity/statutory authority. All electrical work i.e., charging of transformer, pole mounted substation, tapping from battery limit of electricity board shall be carried out in supervision of respective authority including necessary approval, if required.
- All electrical work i.e., charging of transformer, pole mounted substation, tapping from battery limit of electricity board shall be carried out in supervision of respective authority including necessary approval, if required.
- Double pole structure with AB Switch, Lightning arrestors, horn gap fuse, copper wire jumpers up to transformer HT terminals.
- ACSR conductor, 9m MS joint/pole, Pin insulator and GI hardware etc. as required from respective state electricity board battery limit up to double pole structure inside mother station.
- Cables between LT terminals of transformer & load break fuse switch unit, cable supports, double compression cable glands, lugs etc. as required.
- Supply of TPN, AC-23 duty switch fuse disconnecter in outdoor type dust & weather proof steel enclosure.

2.2.1.2 415V, 25 kA Single Front Indoor, fixed type, LT Panel to receive and distribute power to all electrical equipment etc. as per SLD No. C261162-CNG-EL-SLD-4001, C261162-CNG-EL-SLD-4002, C261162-CNG-EL-SLD-4003 cable gland plate of suitable size & of minimum 3mm thickness shall be provided for cable termination, wherever required, for all the electrical panels (MEDB, UPSDB etc.). The MFM of MEDB shall have provision for energy metering also and valid calibration report shall be submitted of the same. Type1+Type2 Surge protection device to be provided for both incoming feeders. Both the feeders should have electrical interlock between them as shown in SLD. The MEDB should have provision to send signal to AMF panel during mains failure and on restoration of grid power to ensure auto ON/OFF of DG..

2.2.2 Single online UPS (1 nos. X 100% ratings+ bypass with SCVS) 2 kVA, 230V OUTPUT, Industrial UPS with SCVS bypass. The UPS shall be industrial type i.e., having three phase input and single-phase output. The UPSDB shall have a digital meter with provision to display current and voltage ratings. The scope includes incoming cables for UPS & all outgoing cables & cabling work from UPS to UPS ACDB.

1 no. (1 X 100 %) Sealed maintenance free (SMF) VRLA battery bank as per SOR for UPS suitable for 1 hour battery back-up time, with isolator, battery rack, earthing of battery rack, complete.


	<b>COMPOSITE WORK OF (MECHANICAL &amp; ELECTRICAL WORKS) AT CNG OLS &amp; DBS STATIONS (12 Nos. of DBS STATIONS &amp; 3 Nos. of OLS STATIONS AT NAGALAND GA</b>	<b>Document No.</b>	<b>Rev</b>
		C261162 -00-PP-BSOW-001	00
		Page 4 of 5	



## CITY GAS DISTRIBUTION PROJECT AT GEOGRAPHICAL AREAS OF NAGALAND GA

Battery shall be sized with ageing factor, SoC and temperature derating factors.

- 2.2.2.1 Power cable (XLPE – insulated armoured Al/Cu conductor 1/2/3/3.5/4 core cables) as per SOR. Scope includes preparation of RCC/ Buried trench, conduiting in roof/walls as required, laying of GI/HDPE pipes and laying of cables in RCC/buried trenches, pipes and cable trays etc. along with termination of cables using cable glands of proper sizes. FLP (CMIFR tested, PESO approved) type double-compression nickel-plated brass cable glands, tinned- copper lugs, clamping material etc. shall be used for cable termination in FLP street lights.
- 2.2.2.2 HDPE pipes GI Cable-trays and accessories like, cable markers, identifier tags, GI saddles and all other associated accessories for cable-laying.
- 2.2.2.3 Flameproof Lights suitable for outdoor and indoor lighting and flameproof exhaust fan for battery room as per SOR. GI poles of 6-meter height to be installed for street lights complete with swan neck/ bracket for lighting fixture mounting. FLP JB to be used for street light poles installed in hazardous area.
- 2.2.2.4 Emergency shutdown button to be provided in sales/office room and one flameproof emergency shutdown button each to be provided on Dispenser Island and compressor fencing. The button shall trip both the incomers to MEDB and also the UPSDB incomer. For Detail Scope of Work, please refer document C261162-CNG-EL-SOW-4002 in Electrical Tender Document

 ENERGISING QUALITY	<b>COMPOSITE WORK OF (MECHANICAL &amp; ELECTRICAL WORKS) AT CNG OLS &amp; DBS STATIONS (12 Nos. of DBS STATIONS &amp; 3 Nos. of OLS STATIONS AT NAGALAND GA</b>	<b>Document No.</b>	<b>Rev</b>
		C261162 -00-PP-BSOW-001	00
		Page 5 of 5	