

## **PRE TENDER MEET FOR SMALL SCALE LNG (SSLNG) PLANT**

Pre Tender Meet date – 03.04.2024 at 1830 HRS IST

Venue – Hybrid i.e. Physical at IGL Bhawan & Virtual through MS Teams (Link for the meeting shall be shared prior to start of meeting)

Communication Email: [Rohit.dixit@igl.co.in](mailto:Rohit.dixit@igl.co.in), [rjain@igl.co.in](mailto:rjain@igl.co.in), [sachin.kumar@igl.co.in](mailto:sachin.kumar@igl.co.in), [nisha.jad@igl.co.in](mailto:nisha.jad@igl.co.in), [cnpassociate@igl.co.in](mailto:cnpassociate@igl.co.in),

Contact Person: Rohit Jain (+91-9810979409)

### **Brief details about the Project**

IGL intends to commence production of LNG from CNG through Small Scale Liquefaction (SSLNG) plant at existing IGL CNG station in Delhi/NCR to optimally utilize infrastructure available at CNG station viz spare compression capacity, land & human resource.

In the pilot phase, IGL would be installing two such 02 SSLNG units, one in Delhi & another in NCR (Gautam Budh Nagar/Ghaziabad). The current requirement is to produce around 8 Tons of LNG/day/location through compression based Small Scale LNG Liquefaction plant which will get its input from existing CNG compressor(s) installed at CNG station.

The process shall entail expansion & chilling of high pressure of CNG (available at ~ 250 Bar) to produce LNG as an automobile fuel in long haul vehicles.

Minimum 33% of CNG is envisaged to be converted into LNG. Provision for balance of the gas should be there by either of the following means:

- Re-circulated to the suction of the compressor at 14-19 bar.
- &
- Inject into the existing MDPE network at ~ 4-6 bar.

The temperature of balance gas should be regulated to 30°C ( $\pm 5^\circ\text{C}$ ) before recirculation/injection.

In addition to above, the SSLNG equipment shall meet the following criteria:

- SSLNG Plant life should be at-least 20 years
- Plant availability should be minimum 355 days/year
- The typical gas composition is mentioned in Annexure- I. The bidder should make suitable gas pre-treatment/purification arrangements to meet the desired input gas composition for the offered SSLNG plant.

The bidder shall have the single point responsibility for technology, design, engineering, manufacturing, packaging, supplying, installation and commissioning of SSLNG Plant along with carrying out entire operations maintenance for an initial/predefined period. The scope of supplies includes (but not limited to) SSLNG plant, refrigeration unit, pre-treatment/purification system, booster, storage tank, transfer & submerged pump, LNG dispenser, inter connecting tubes etc.

## Gas Composition

### DESIGN GAS COMPOSITION:

Sr. No.	Component	% Mole
1	Methane	90 - 99
2	Ethane	0.2 – 5.0
3	Propane	0.02 – 0.75
4	Butane	0.001 – 0.25
5	Pentane	0.0001 – 0.05
6	Nitrogen	0.2 – 1.0
7	Carbon Dioxide	0.2 – 3.0
8	Sulphur	Refer Below
	Total	100

Odorant: (SCENTINEL*S-20 i.e 80% t-Butyl Mercaptan + 20% Methyl Ethyl Sulfide)	12 PPM
Total Sulphur including H <sub>2</sub> S	Maximum 25 ppm by weight
Water Content	< 20 ppm
NCV (Kcal/Sm <sup>3</sup> )	8100- 8500