

**Full Title of the project:** Diversion of 0.8516 Hectare of forest land ( i.e parallel/ cross to the Roads/NHI/Railways/River/Canal side strip plantation declared as protected forest) in favour of Bharat Petroleum Corp. Ltd for laying of Natural Gas 8" Dia. Steel Pipeline, 40 mm OFC & 125mm MDPE) in tehsil Nangal Dist. Rupnagar starting from NFL-GAIL station to various Spur line in Rupnagar GA at various parallel/cross locations.

File No. : \_\_\_\_\_

Date of Proposal: \_\_\_\_\_

## Annexure

### **PROJECT NOTE**

#### **Introduction:-**

Bharat Petroleum Corporation Limited (BPCL) is a Public Sector Undertaking company of Central Government and one of the leading companies in the petroleum sector in India. BPCL is in the field of exploration, production and retailing of petroleum products.

BPCL is creating natural gas transportation infrastructure, connecting all possible demand and supply centers with bio directional gas transmission facilities in India. BPCL is committed to reach out to every possible natural gas users to energize India's natural gas vision. Piped Natural Gas is one of the cleanest fuels which emit less carbon dioxide then either by coal or oil and far fewer pollutants then other hydrocarbon fuels.

**Petroleum and Natural Gas Regulatory Board (PNGRB)**, a regulatory body set up by Govt. of India, for laying, building, operating and expending City Gas Distribution (CGD) has authorized BPCL to setup City and Local Gas Distribution (CGD) Network in Rupnagar Geographical Area and surroundings in Punjab. Copy of authorization is enclosed herewith as **Annexure-A**

Considering above facts BPCL has proposed to set up city gas distribution network in the entire Rupnagar district and surrounding area for distribution of natural gas for domestic/commercial/industrial use. BPCL has proposed Various Spurlines to lay 4"/5"/6"/8" dia Steel/MDPE pipelines originated from GAIL Station at NFL in Tehsil Nangal in District Rupnagar.

Proposed pipeline alignmruns parallel and with ROW of roads, Railway, drains, water pipeline, telephone line, electric line etc at a depth of 1.2 to 1.5 meter from natural ground level. Pipeline alignment runs parallel and across to NH-503 Extn. And railway lines on various locations as mentioned below. Company shall follow all the best standards of safety as prevailing in gas distribution industries and norms of PNGRB.

#### **Investigation:-**

The route has been carefully selected to minimize total length of pipeline and forest based on desktop study and reconnaissance survey.

The right of Use (RoU) for forest area is proposed as minimum of 0.6 mtrs. Width (which is the minimum requirement).

The alignment is selected in such a way that while crossing the area under forest cutting of trees is minimized/avoided.



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**Design:-**The entire pipeline will be designed to withstand a maximum allowable operating pressure (MAOP) of 99 kg per Sq. CM. the design code that generally will be followed would be ANSI B 31.8. However, good engineering practices and other guidelines from other international standards like OISD( Oil Industries and Safety Directorate) will be followed as felt necessary to make the pipeline operation standard and safe. 20% excess flow capacity will be built in the pipe size to provide flexibility to the customer and to absorb hourly fluctuations of its consumption and spread it quality over 24 hours.

**Pipe material:-**Pipe material would be American Petroleum Institute (API) grade steel, inspected at mills through third party inspection agency. All valve would be full-bore ball with gas/gas-oil actuators for operation. Entire pipeline would be pig gable. All pipe fitting would be matching type and class.

**Corrosion Protection:-**The pipeline will be coated with 3 layers of Polyethylene (PE). All field joints will be coated with Raychem sleeve or equivalent followed by Holiday detection to ensure continuity of corrosion protection layer. A suitable impressed current cathodic protection system will be provided as an additional protection to the pipeline.

A competent pipe laying contractor will be engaged for this work. The project will be monitored at site and office levels through latest project management software like MS.

The pipeline will be constructed as per the latest international standards like ANSI B31.8 and ASME. All good engineering practices will be followed during fabrication and laying of pipeline including usage of approved welding procedures, qualified welders and well identified consumable. Radiography of weld joints will be carried out as per applicable standard. Periodic pigging of the pipeline during construction will ensure expeditious completion and smooth commissioning. Entire execution will be supervised by competent third party inspection (TPI) agency that will in turn test and certify the pipeline trial commissioning will also be done under the supervision of this TPI.

**Investments:-**The estimated total cost of the project is Rs. 25 Crore. (Approx.)

**Time schedule:-**The completion schedule for this project is 2017-2019

**For Bharat Petroleum Corporation Limited**



**Rajinder Kumar**

**Chief Manager (Gas) Rupnagar**

**Place : Rupnagar**

**Date:**



**RAJINDER KUMAR**  
Chief Manager (Gas)  
Bharat Petroleum Corporation Limited  
Rupnagar