



Sabarmati Gas Ltd.

(A Joint Venture of GSPCL & BPCL)

Gas Distribution Network in Patan-Chanasama-Harij Looping Connectivity: Diversion of 3.159 Hect. of Protected Forest land i.e. Road side strip plantation declared as protected forest for laying of 125 mm dia MDPE Pipeline for supply natural gas to Patan-Chanasama & Harij City and surrounding area in Taluka /District Patan – Pipeline laying parallel and across to various State Highways along the pipeline route

PROJECT REPORT

INTRODUCTION :

Sabarmati Gas Ltd a joint venture company of Gujarat State Petroleum Corporation Ltd (GSPCL) and Bharat Petroleum Corporation Ltd (BPCL) having the registered office situated in plot no. 907, Sector 21, Gandhinagar - 382021.

Sabarmati Gas Ltd. is currently in the business to setup Piped Natural Gas (PNG) distribution network to provide PNG for residential consumers as well as commercial units and CNG Station in North Gujarat.

Sabarmati Gas Limited is in Process to set up Gas Distribution Network in Mehsana, Sabarkantha and Gandhinagar Districts of Gujarat State. Distribution Network will supply Gas to various industries, cities for domestic use and CNG station etc.

As a part of the project, we are planning to lay 125 mm dia MDPE Pipeline for supply natural gas to Patan-Chanasama & Harij City and Surrounding area in Taluka /District Patan from our proposed Patan PNG City Network. The total length of proposed Patan-Chanasama Spurline is 13/700 Km and Chanasama-Harij Spurline is 21/950 Km and Harij-Patan Spurline is 27/300 Km. The proposed pipeline shall be laid in the space available along side of the existing ROW of State Highway at a depth of 1.2 meter below the lowest ground level and width of trench will be 0.6 meter. The Company shall follow all the best standards of safety and inspection practices as is prevalent in the Gas Distribution Industry.

One of the main objects to be pursued by the company on its incorporation is to lay, design, construct, fabricate, install and maintain gas process and gas manufacturing plants, gas installation including gas storage, machinery apparatus, pipes, valves fillings, meters and other allied accessories necessary and useful for the manufacturer, supply and destination of gas and energy.

Investigation :

The route has been carefully selected to minimize total length of the pipeline and forests based on desktop study and reconnaissance survey carried out by consultants M/s. Secon Pvt. Ltd.

The Right of Use (RoU) for forest area is proposed as a minimum of 0.5 mtr. 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.

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 B31.8. 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 to pipe size to provide flexibility to the customer and to absorb hourly fluctuations of its consumption and spread its committed quantity over 24 hours.

1

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The entire pipeline will be designed to withstand a Maximum Allowable Operating Pressure (MAOP) of 4 and 49 barg by MDPE pipeline respectively. The design code that generally will be followed would be AMSEB31.8 and PNGRB Technical standard for CGD.

Pipe Material:

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

Pipe material would be Indian standard grade MDPE material, inspected at factory through third party inspection agency. All valves would be full-bore ball. All pipe fittings 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 protective 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 the pipe 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 a 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.

The proposed pipeline is MDPE pipeline and it is not the steel pipeline. Therefore; MDPE pipe do not require cathodic / corrosion protection system.

Investments :

The estimated total cost of the project is Rs. 3 Cr. (Approx.)

Time Schedule :

The completion schedule for this project is 2018-2019.

For Sabarmati Gas Limited



Mehul Surti
Chief Manager - Project