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Ravindra Agrawal

Executive Director (Gas Business)

Ms. Vandana Sharma Secretary. Petroleum and Natural Gas Regulatory Board (PNGRB) 1st Floor, World Trade Centre Babar Road New Delhi- 110001

Sub: Comments on Public Consultation Document (PCD) on Final initial unit natural gas pipeline tariff of MVI-SREP-DVPL natural gas pipeline and DVFL-GREP-Up gradation natural gas pipeline.

Respected Madam,

With reference to PNGRB Public Notice Ref.: No. PNGRB/ M(C)/65-Vol-II dated 18.10.2018 seeking comments on Public Consultation Document (PCD) on Final initial unit natural gas pipeline tariff of HVJ-GREP-DVPL natural gas pipeline and DVPL-GREP-Up gradation natural gas pipeline, please find attached at Annexure-I GSPL comments for your kind perusal.

Thanking You,

Yours Sincerely

Ravindra Agrawal

Group ED (Gas Business)

#### Annexure-I

# Comments on Final Initial Unit Natural Gas Pipeline Tariff for HVJ-GREP-DVPL and DVPL / GREP Upgradation

#### A. Compressor Station

#### i. Observation

a. In FY 2011-12, additional Gas Turbine Compressor Trains (GTC's) has been installed at Jhabua and Vijaipur for boosting gas pressure in HVJ-DVPL-GREP Natural Gas Pipeline

## **Submission**

- a. PNGRB vide letter dated 19.04.2010 has issued letter of Acceptance to HVJ-DVPL-GREP Natural Gas Pipeline, wherein it there is no reference to installation of additional compressors at Jhabua and Vijaipur.
- b. GAIL vide document (attached herewith) available on GAIL's website at link at <a href="https://gailebank.gail.co.in/extapps/gailnewsite/tender/pdf/tender8077.pdf">https://gailebank.gail.co.in/extapps/gailnewsite/tender/pdf/tender8077.pdf</a> has issued tender for installation of additional Gas Turbine Compressor trains (GTC's) at Jhabua and Vijaipur location to boost natural gas pressure in 42" Dahej-Viajipur Gas pipeline which is a part of HVJ-DVPL-GREP natural Gas Pipeline.
- c. The said compressors at Jhabua and Vijaipur were later commissioned by GAIL in FY 2011-12 (Relevant extract of GAIL's Annual Reports FY 2011-12 attached herewith)
- d. Accordingly, the capacity determination of HVJ-DVPL-GREP natural gas pipeline post FY 2011-12 is pending and so increase in capacity of HVJ-DVPL-GREPL due to installation of above Gas Turbine Compressor Trains is yet to be determined by the PNGRB. Hence, actual capex, opex (including future) of such Gas Turbine Compressor Trains should not be considered for Final Tariff Determination of HVJ-DVPL-GREPL Natural gas pipeline as held by the PNGRB tariff in its Tariff order no. TO/05/2018 dated 27.09.2018 by excluding the capex & opex of Compressor Station at Gana.
- e. Also, in line with the PNGRB tariff order no. TO/05/2018 dated 27.09.2018, the said installation of additional Gas Turbine Compressor Trains (GTC's) for HVJ-DVPL-GREP natural Gas Pipeline shall be dealt as per the provision of Regulation 12 of PNGRB Authorisation Regulations.

## **B.** Economic Life

#### ii. Observation:

a. Economic life of HVJ-GREP-DPVL has been considered till 14th August, 2022

#### **Submission:**

- a. The initial economic life of HVJ-GREP-DVPL was till August, 2012
- b. However, PNGRB in the interest of consumers while determining provisional tariff of HVJ-GREP-DVPL on **19.04.2010** i.e. more than **2 years** before ending of initial economic life, have extended the economic life of HVJ-GREP-DVPL for a block of another **10 years** i.e. up to August, **2022**.
- c. By considering economic life up to August, 2022 in Final Tariff Determination, customers / shippers of HVJ-DVPL-GREP would be required to pay Higher Tariff as can be evident from the GAIL's proposal for final tariff.

- d. Accordingly, in the interest of consumers of HVJ-DVPL-GREP, PNGRB in terms of Regulation 2(1)(e) of PNGRB (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 may consider extending economic life of HVJ-GREP-DVPL for another 10 years i.e. upto August, 2032 for finalisation of Tariff.
- e. Else, consumers of HVJ-DVPL-GREP would be forced to accept Integrated Tariff of HVJ-DVPL-GREP and DVPL GREP up-gradation, which was earlier opposed by these customers.

#### C. Volume Divisor

## iii. Observation:

a. Volume divisor for tariff determination of HVJ-DVPL-GREP Natural Gas Pipeline is decreasing while that of DVPL GREP up-gradation Natural Gas Pipeline is increasing.

## Submission:

- a. HVJ-DVPL-GREP natural gas pipeline traverses through larger geographical area and is catering to a larger customer base viz-a-viz DVPL-GREP-Up gradation.
  - To recover higher transportation tariff from customers / shippers, the entity denies access to HVJ-DVPL-GREP Natural Gas Pipeline and capacity is provided only in DVPL-GREP-Up gradation pipeline.
  - This can be also be evident from the following facts:
    - I. On the commissioning of DVPL-GREP- Up gradation pipeline, the transportation volume of HVJ-GREP-DVPL pipeline volume started decreasing and that of DVPL-GREP-Upgrdation pipeline increased.
      - Even though HVJ-GREP-DVPL pipeline caters the same region which DVPL-GREP-Up gradation pipeline traverses, the tariff of the former pipeline is competitive than the latter.
    - II. The online portal launched by GAIL recently for Open Access does not mention booking of capacity in HVJ-GREP-DVPL pipeline and also Schedule-I of HVJ-GREP-DVPL pipeline as per provision of PNGRB Access Code Regulation has not been declared on GAIL's website.
  - Also, the entity has submitted bifurcation of quantity transported in DVPL-I part of HVJ network and DVPL-II in the manner that divisor of both the pipelines is around 75 % of design capacity.
  - Hence, prior to finalising the tariff, PNGRB may verify cases of denial of access to customers / shippers in HVJ-GREP-DVPL pipeline even though sufficient capacity is available and the methodology adopted for bifurcation of contractual vs Actual volume transported in DVPL-I and DVPL-II.

## iv. Observation:

a. Impact of natural gas volume to be flown for commissioning & post commissioning of Jagdishpur-Haldia Natural Gas Pipeline (JHPL) is not considered in Volume divisor for tariff determination of HVJ-DVPL-GREP Natural Gas Pipeline and DVPL GREP upgradation Natural Gas Pipeline.

## **Submission:**

- a. Jagdishpur-Haldia Natural Gas Pipeline (JHPL), as per GAIL submission, is expected to be commissioned by 31<sup>st</sup> December, 2018.
  - Gas shall be injected in JHPL through (i) existing HVJ-DVPL-GREP Natural Gas
    Pipeline at Jagdishpur and (ii) Under construction Vijaipur-Auriya-Phulpur
    Spur-line part of DVPL GREP up-gradation Natural Gas Pipeline.
  - Line pack volume of 71.53 MMSCM is required for JHPL and natural gas volume requirement of customers of JHPL shall have to transported through HVJ-DVPL-GREP Natural Gas Pipeline and DVPL GREP up-gradation Natural Gas Pipeline
  - However, year wise volume submitted by GAIL for HVJ-DVPL-GREP Natural Gas Pipeline and DVPL GREP up-gradation Natural Gas Pipeline does not seem to consider such volume.
  - Also, as per the proposal of GAIL submitted for Vijaipur-Auriya-Phulpur Spurline, the said spur-line is required to feed natural gas into JHPL.
  - Since, the Capex & Opex of Vijaipur-Auriya-Phulpur Spur-line is being considered for tariff determination, volume to be transported through the said Spur-line into JHPL also needs to be considered in divisor of DVPL GREP up-gradation Natural Gas Pipeline, which is in-line with the PNGRB tariff order no. TO/05/2018 dated 27.09.2018 issued by the Hon'ble Board.
  - Also, constant volume has been considered for Tariff determination of HJV-DVPL-GREP pipeline and DVPL-GREP-Up gradation natural Gas pipeline from the year 2016-17 & 2017-18 respectively.
    - Accordingly, volume to be considered as divisor for HJV-DVPL-GREP natural gas pipeline and DVPL-GREP-Up gradation natural Gas pipeline needs to be increased in view of the commissioning of JHPL.

#### v. Observation:

a. Capacity for volume divisor considered after Netting of compressor fuel requirement

## Submission:

- a. As per PNGRB Authorisation Regulations, capacity of natural gas pipeline is aggregate of (i) Capacity requirement of the entity (ii) Firmed up contracted capacity and (iii) 33% of (i) and (ii) as an extra capacity.
- b. As per above proviso, capacity of natural gas pipeline is inclusive of capacity requirement of entity, which includes Fuel requirement for running compressor. Hence, fuel requirement for running the compressor cannot be netted off from the volume divisor.

## vi. Observation:

a. Phase wise capacity built considered for arriving at divisor of DVPL-GREP-Up gradation pipeline

#### **Submission:**

- a. PNGRB in its tariff order no. TO/05/2018 dated 27.09.2018 has not considered the phase wise capacity built up provided by the entity for arriving of divisor of natural gas pipeline.
- b. In accordance with the decision taken by the Hon'ble Board in the said order, the same methodology should be applied for tariff determination of DVPL-GREP-Up gradation pipeline also.

### D. Integrated Tariff

## i. Observation:

a. Integrated Tariff of HVJ-DVPL-GREP and DVPL-GREP-Up gradation natural gas pipeline.

#### Submission:

- a. PNGRB has authorised HVJ-DVPL-GREP and DVPL-GREP-Up gradation natural gas pipeline as two distinct and separate natural gas pipelines
- b. Accordingly, Hon'ble Board vide its order dated 19<sup>th</sup> April, 2010 had issued suitable reasoning / rationale for keeping HVJ-DVPL-GREP and DVPL-GREP-Up gradation natural gas pipelines as two separate and distinct pipelines and issued the order determining separate provisional tariff.
- c. Since, separate provisional tariffs have been determined / issued by the PNGRB for HVJ-DVPL-GREP and DVPL-GREP-Up gradation natural gas pipelines, finalisation of said provisional tariff should also be determined separately by the Hon'ble Board.

#### **E. Others Observations**

- a. No Approval by PNGRB is available on its website for Rich lean gas corridor modification for which capex of Rs. 33.92 Crs has been proposed. Hence, PNGRB may review consideration of such capex for tariff determination.
- b. The Capex / Gross Block considered for HVJ-DVPL-GREP and DVPL-GREP-Up gradation natural gas pipelines is Rs. 22,923.4 crores, while total Opex claimed for the said pipeline is Rs. 50,893.92 crores, PNGRB may verify the claim of such enormous O&M cost.

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# Extract of tender document

## Job specification for gas turbine driven centrifugal compressors

## 1.0 Scope

This specification describe the minimum requirements for design , engineering , manufacture , testing, supply & supervision of erection and commissioning of the Compressor package for GAIL's Compressor station at Jhabua and Vijaipur as described hereunder and in various attachments listed in the Material Requisition. The intent of these requirements is to supplement, highlight and modify the requirements as given in data sheets, specifications as listed under list of attachment & enclosed with the Material Requisition and other applicable standards referred to in datasheets / specifications.

#### 2.0 General

## 2.1 Purpose

(i) The subject Gas Turbine – Compressor trains (GTC's) at Jhabua are required for boosting 35 MMSCMD R-LNG and NG coming from Dahej through 42 " dia pipeline for its onward transportation in 42" DVPL. The configuration shall be 2 working + 1 standby GTC's trains. Each GTC will be designed to cater to a capacity of 17.5 MMSCMD of gas. (or suitable configuration as may be suggested by vendor).

The tentative parameters shall be as follows:

Suction pressure

: 61.81 Kg/Cm2 g

Discharge pressure

: 92 Kg/Cm2 g

Suction temperature

: 30 Deg C

(ii)The subject Gas Turbine –Compressor trains (GTC's) at Vijaipur are required for boosting 20 MMSCMD R-LNG and NG coming from Dahej through 42 " dia pipeline for its onward transportation in 48" Vijaipur –Dadri Pipeline. The configuration shall be 1 working + 1 standby GTC's trains. Each GTC will be designed to cater to a capacity of 20 MMSCMD of gas. (or suitable configuration as may be suggested by vendor).

The tentative parameters shall be as follows:

Suction pressure

: 54.64 Kg/Cm2 g

Discharge pressure

: 97 Kg/Cm2 g

Suction temperature

: 30 Deg C

## 3.0 Operating Philosophy

- 3.1 The operating and control philosophy of the subject compressors shall be as follows:
- 3.1.1 Monitoring and control of the compressor station shall be performed at three levels, viz Master control centre (SCADA) & Compressor Control panel / common facility panel / PLC Console.

## 5xt-root of AR FY 2011-12



Under the aegis of Government of India, your Company Is actively pursuing import of gas through the proposed trans-national pipeline originating in Turkmenistan and passing through Afghanistan and Pakistan to India (TAPI pipeline). Your Company has executed the Gas Sales Purchase Agreement (GSPA) with Turkmengaz for 38 MMSCMD for 30 year supply in May, 2012 at Ashgabat. Consequently, other agreements and arrangements are likely to be concluded soon. Your Company is playing lead role in the discussions on the project.

During FY 2011-12, your Company divested its entire stake in Shell CNG Egypt (SCNGE) as it did not meet the strategic objectives.

#### Domestic Business Initiatives

The domestic business initiatives of your Company are as follows:

#### > Natural Gas Pipeline Projects

During the financial year, your Company completed commissioning of various pipeline networks and auxiliary systems having a length of about 1,337 km which include the following:

- 1. Commissioning of Compressors at Jhabua & Vijaipur
- 2. Dahel-Vljaipur Pipeline
- 3. Karanpur-Moradabad-Kashipur Pipeline and Connectivity to Siti Energy & Sarvanthi Energy
- 4. Agra Ferozabad Expansion
- 5. Connectivity to Meerut

Further, Bawana – Nangal Pipeline was charged with gas and the pipeline network Dahej – Vijalpur – Dadri- Bawana – Nangal / Bhatinda was dedicated to the nation by Hon'ble Prime Minister of India during inaugural ceremony of Asia Gas Partnership Summit held on 23<sup>rd</sup> March. 2012.

Due to Increase In gas availability and commissioning of trunk lines, last mile consumer connectivity has been provided to 32 number of consumers in FY 2011-12 for supplying approx 6.35 MMSCMD gas.

During 2011-12, your Company was awarded authorization by

PNGRB through a competitive bidding process to lay 1,500 km natural gas pipeline from Surat in Gujarat to Paradip in Orissa, connecting west to east coast.

#### Petrochemicals

In order to have a robust presence in the Petrochemical sector, your Company is doubling the capacity of its existing Petrochemical manufacturing facilities at Pata to produce 9,00,000 TPA of polymers.

Your Company is setting up a green-field 2,80,000 TPA Petrochemical Complex at Lepetkata in District Dibrugarh, Assam, through its subsidiary, Brahmaputra Cracker and Polymer Limited (BCPL).

Further, your Company Is also a co-promoter In ONGC Petroadditions Limited (OPaL) which is implementing a green field petrochemical complex of 1.4 MMTPA polymer capacity (dual feed cracker) in the Special Economic Zone (SEZ) at Dahej, Gujarat.

#### > Power Sector

Recognizing the potential reforms undertaken in the power sector and increased emphasis laid on capacity expansion in the power sector in the XII $^{th}$ 5 year plan, your Company is exploring opportunities in gas based power plants.

#### > LNG Regasification Terminals

The increasing pace of demand for natural gas far outstrips its availability from indigenous sources. LNG imports will have to keep pace to meet the growing demand and bridge the gap in supply. Currently LNG import terminals are located on the Western coast of the country. Keeping in view the demand potential for natural gas applications in the Eastern belt of the country and for feeding proposed pipellnes in the region, your Company is exploring setting-up of a LNG import facility along the East Coast of India.

## > Renewable Energy

At the beginning of the year, your Company had an Installed capacity of 4.5 MW wind energy at Sinoi, District Bhuj, Gujarat. The power generated was being wheeled for captive use by its installation in



GAIL team led by Shri B.C. Tripathi, CMD accompanied by Shri Prabhat Singh, Director (Marketing), Shri S L Raina, Director (HR), Shri S. Venkatraman, Director (BD) and Shri Arun Singhal, CVO (in New Delhi) and the team from Cheniere led by Shri Charif Souki, Chairman and CEO (in Houston) during the signing of SPA.