



Petroleum and Natural Gas Regulatory Board New Delhi

Public Consultation Document (PCD)

(PNGRB/COM/2-NGPL Tariff (3)/2013 P-297 16th July 2019)

Subject	Tariff review, under the provisions of the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008.
Entity	GAIL (India) Limited (“GAIL”)
Pipeline	Kochi-Koottanad-Bangalore-Mangalore Natural Gas Pipeline (KKBMPL)
Authorization	Under Regulation 17 (1) of PNGRB (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008
Provisional capacity	16 MMSCMD, including common carrier capacity of 4 MMSCMD
Length	1,104 kms (Phase-I: 44 kms; Phase-II: 1,060 kms)
Phase-I Commissioned on	25.08.2013
Economic life from the date of commissioning of Phase-I	25 years i.e. from 25.08.2013 up to 24.08.2038

1. Regulatory Framework

- 1.1. In terms of Section 22 of the PNGRB Act, 2006, the Board is entrusted with the responsibility of determining the natural gas pipeline tariff to be charged by the entities laying, building, operating or expanding a natural gas pipeline before the appointed day.
- 1.2. The methodology for determination of pipeline tariff has been specified in the relevant provisions of the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008 (“Tariff Regulations”) notified on 20.11.2008. Under the provisions of these regulations, PNGRB is to determine the initial unit natural gas pipeline tariff on a provisional basis first (“provisional tariff”) and then finalize the same (“final tariff”) considering the actual costs and data at the end of the financial year on the basis of audited accounts. Tariff review is to be done by the Board, in terms of Regulations 2 (1) (h) of Tariff Regulations.
- 1.3. The transportation tariff is determined using the Discounted Cash Flow (“DCF”) method, based on actual and projected pipeline Capital Expenditure (“Capex”) and Operating Expenditure (“Opex”) in line with provisions of Tariff Regulations, over the entire economic life of the pipeline thus arriving at a single levelized transportation tariff. If the length of the pipeline is more than 300 kms, the recovery of the transportation tariff is apportioned across such zones of 300 kms each, resulting in zonal tariff, where the zonal tariff of a later zone is higher than that of an earlier zone.

2. Final initial unit natural gas pipeline tariff (final tariff)

- 2.1. PNGRB vide Order no. TO/03/2016 dated 01.07.2016 notified the final tariff for KKB MPL, applicable with effect from the date of commissioning of phase I (i.e. 25.08.2013) till the end of economic life (i.e. 24.08.2038) after following the due process and the direction of Hon’ble APTEL.

2.2. The levelized final tariff and its apportionment in zones as approved by PNGRB are as follows:

2.2.1. Final Tariff

Rs. MMBTU / GCV basis

Period	Levelized Tariff	Zone 1	Zone 2
Tariff w.e.f. 25.08.2013 to 31.03.2016	28.99	28.98	29.02
Tariff from FY 2016-17 onwards	42.79	42.78	42.82

3. GAIL filed its proposal for tariff review for KKB MPL vide letter dated 01.07.2019, based on actual data up to FY 2018-19. Subsequently, GAIL vide email dated 15.07.2019 submitted revised excel sheet considering Common Corporate Capex and Opex for FY 2018-19 based on cost center wise allocation. Salient features of levelized tariff submitted by GAIL are as follows:

Economic life	25 years
Levelized tariff from 25.08.13 to 31.03.16 (Rs MMBTU/GCV)	28.98
Levelized tariff from 01.04.16 to 31.03.20 (Rs MMBTU/GCV)	42.78
Levelized tariff from 01.04.20 to 24.08.38 (Rs MMBTU/GCV)	128.81
Number of working days in a year	345
Annual inflation rate	4.58%
Capex from 25.08.2013 to 24.08.2038 (Rs in Crore)	6,385.69
Opex from 25.08.2013 to 24.08.2038 (Rs in Crore)	5,166.38
Unaccounted gas loss from 25.08.2013 to 24.08.2038 (Rs in Crore)	1,449.14
Line Pack (Rs in Crore)	71.77
Working Capital at the end of economic life (Rs. in Crore)	140.72
Terminal Value [including Line pack and Working Capital (Rs in Crore)]	3,006.07

4. **Important aspects of tariff filing by GAIL**

The various aspects of tariff filing submitted by GAIL are as follows:

4.1. **Economic Life of Pipeline:**

GAIL in its tariff submission has considered economic life of KKB MPL from date of commissioning of phase I i.e. from 25.08.2013 to 24.08.2038.

4.2. Capex:

GAIL in its tariff filing has claimed a total Capex Rs.6,385.69 Crore from 25.02.2010 till the end of its economic life i.e. 24.08.2038. This is discussed below under three heads i.e. actual Capex outgo including CWIP from 2009-10 to 2018-19 and future Capex projections.

4.2.1. Actual Capex Outgo including CWIP from FY 2009-10 to 2018-19

GAIL in its tariff filing has claimed a total Capex outgo (including CWIP) excluding IDC of Rs. 2,403.97 Crore from 25.02.2010 to 31.03.2019. Year-wise breakup of Capex claimed in tariff filing submitted by GAIL is as follows:

Rs in Crore			
Financial year	Site Capex	Common Corporate Capex	Total
2009-10	1.88	-	1.88
2010-11	73.36	0.00	73.36
2011-12	1,033.33	0.00	1,033.33
2012-13	328.38	0.00	328.38
2013-14	108.06	0.51	108.57
2014-15	-43.72	1.38	-42.34
2015-16	-53.04	0.26	-52.78
2016-17	14.14	0.19	14.33
2017-18	413.44	0.77	414.21
2018-19	524.72	0.31	525.03
Total	2,400.55	3.42	2,403.97

4.2.2. Future Capex Projections

GAIL in its submission has claimed future Capex of Rs.3,981.72 Crore (Rs.3,639.75 Crore without inflation) from FY 2019-20 till end of economic life i.e. 24.08.2038. Details of future Capex claimed by GAIL are as under:

S no.	Description	Rs in Crore
1	Project Execution (PE) Capex	3,744.79
2	PD Capex- LMC	158.18
3	O&M non-recurring Capex	78.75
	Total	3,981.72

4.2.2.1. **Project Execution (PE) Capex**

Under this head , GAIL in its tariff filing has claimed a total of Rs. 3,744.79 Crore for Phase-II (Rs 3,482.78 Crore without inflation), the details of the same are as under:

Pipeline Sections	Rs in Crore	
	With Inflation	W/o Inflation
Kochi-Kootanand-Mangalore Section by September-19	1,002.44	983.72
Koottanad-Palakkad P/L Section (24"X94km) & Singasadra, Bangalore to Krishagiri, Tamil Nadu P/L Section (24"x48) by March 2020	751.16	734.69
Palakkad- Krishagiri P/L Section (24"X301KM) by February -2022.	1,991.19	1,764.37
TOTAL	3,744.79	3,482.78

4.2.2.2. **PD Capex**

GAIL has claimed total PD Capex of Rs. 158.18 Crore (Rs 100 Crore without inflation) @ Rs 5 Crore per year from FY 2019-20 to FY2038-39 towards Last Mile Connectivity. It has submitted that total expenditure of Rs 32.02 Cr has been made in two years towards various Last Mile Connectivity (LMC) under phase – I of KKMBPL network up to FY 2014-15 and the average capital investment per year towards LMC to various customers in phase I is approximately Rs 16 Cr. It assumed connectivity to new customers, future Capex of Rs 5 Cr / year for the FY 2019-20 to 2038-39. The future Capex of Rs 5 Cr. / Year has been calculated considering 4" pipeline of about 8-10 km length with preliminary estimate of Rs 14 Lakh/inch-km without inflation.

4.2.2.3. **O & M non-recurring Capex**

Under the head, GAIL has claimed total O&M Non recurring Capex of Rs. 78.75 Crore (Rs. 56.97 Crore without inflation) on account of Technology upgradation/ capacity enhancement of metering systems and other terminal

equipment, PIDS system installation, Procurement of insurance pipe, Installation of PRS, Procurement of USM, etc.

4.3. **Operating Expenses (Opex)**

In its tariff filing, GAIL has claimed a total Opex of Rs. 5,166.38 Crore from 2013-14 till the end of its economic life i.e. 24.08.2038. This is discussed below under two heads i.e. Actual Opex outgo from 25.08.2013 to 31.03.2019 and future Opex projections from 01.04.2019 onwards till 24.08.2038.

4.3.1. **Actual Opex from 25.08.2013 to 31.03.2019**

GAIL in its tariff filing, dated 01.07.2019, has claimed actual total Opex of Rs.92.61 Crore from 25.08.2013 to 31.03.2019 as under:

			Rs in Crore
Financial Year	Site Opex	Corporate Common Opex	Total Opex
2013-14	27.04	8.16	35.20
2014-15	2.75	3.91	6.66
2015-16	(16.04)	4.39	(11.65)
2016-17	13.01	4.18	17.19
2017-18	17.05	5.90	22.95
2018-19	16.04	6.22	22.26
Total	59.85	32.76	92.61

4.3.2. **Future Opex**

GAIL in its tariff filing has claimed future Opex of Rs.5,073.77 Crore from 01.04.2019 to 24.08.2038 under following heads:

- a) **Opex:** Under this head, GAIL has claimed Rs.771.54 Crore. GAIL has inflated actual Opex for FY 2018-19 with inflation rate of 4.58%. Further, additional Opex on account of pay revision @ 35 % in FY 2027-28 as Rs 3.87 Crore per annum and in FY 2037-38 as Rs 8.17 Crore per annum has also been considered.

b) **PD and PE Opex:** Under this head, GAIL has claimed an amount of Rs.3920.34 Crore. GAIL has considered Opex @ 2.5% of future PD Capex and future PE Capex, with an annual inflation of 4.58%.

c) **Non-recurring O&M Opex:** Under this head, GAIL has claimed an amount of Rs. 381.89 Crore considering inflation @ 4.58 % on account of R&M, Replacement of P/L equipment to comply with P/L system Integrity requirement, Shifting of Line due to external factors, statutory requirement, safety infringement etc, ILI, Extension of Casing Pipe due to Widening of Highway, etc.

4.4. Unaccounted Gas

GAIL has considered 0.3% of the normative volume as unaccounted gas loss. Total unaccounted gas loss claimed by GAIL is Rs.1,449.14 Crore from 25.08.2013 to 24.08.2038.

4.5. Volume Divisor

GAIL has considered volume divisor, based on phase wise commissioning of KKB MPL which are as follows:

Pipeline Sections	Commissioning /Proposed Commissioning Date	Capacity considered (MMSCMD)
Phase-I	25.08.2013	6.00
Phase-II		
Kochi-Kootanand-Mangalore (30"x97 km & 24"x347 km)	01.10.2019	6.00
Koottanad-Palakkad P/l Section (24"X94 km) & Singasadra, Bangalore to Krishagiri, Tamil Nadu P/l Section (24"x48 Km)	01.04.2020	0.82
Palakkad- Krishagiri P/L Section (24"X301 Km)	01.03.2022	3.18
TOTAL		16.00

Year-wise volume divisor considered by GAIL in its tariff submission are as follows:

MMSCMD

Financial Year	Phase I	Phase II	Total	Actual Volume Flow
2013-14	2.70		2.70	0.54
2014-15	2.97		2.97	0.39
2015-16	3.42		3.42	0.57
2016-17	3.87		3.87	1.03
2017-18	4.32		4.32	2.29
2018-19	4.50		4.50	1.71
2019-20	4.50	2.70	7.20	
2020-21	4.50	3.29	7.79	
2021-22	4.50	5.24	9.74	
2022-23	4.50	5.77	10.27	
2023-24	4.50	6.52	11.02	
2024-25	4.50	7.04	11.54	
2025-26	4.50	7.29	11.79	
2026-27 onwards	4.50	7.50	12.00	

4.6. **Working Capital:**

GAIL, in its tariff submission, has considered average working capital of Rs. 99.27 Crore p.a. during the economic life of KKBMPL.

4.7. **Number of working days:**

GAIL has considered 345 days as operating days in a year.

4.8. **Line Pack:**

Line pack is the value of gas which always remains in the pipeline and as per regulations, it is to be considered as cash outflow in the initial year and to be considered as cash inflow in the last year of the economic life of the pipeline. GAIL, in its tariff model, has considered cash outflow of Rs. 71.77 Crore (Rs.

6.97 Crore in the FY 2013-14, Rs 30.71 Crore in 2019-20, Rs 7.22 Crore in 2020-21 and Rs. 26.87 Crore in 2021-22).

4.9. **Terminal Value:**

Terminal Value is the sum of the residual value of the assets at the end of the economic life, working capital and line pack. GAIL in its tariff submission, has considered terminal value of Rs. 3,006.07 Crore (Residual value of assets as Rs. 2,779.90 Crore, working capital of Rs.154.40 Crore and line pack of Rs 71.77 Crore).

4.10. **Return on Capital Employed**

As per Clause 2 of Schedule A of the Tariff Regulations, natural gas pipeline tariff shall be calculated based on the DCF methodology after considering the reasonable rate of return (i.e. “twelve percent post-tax” as per clause 3 to Schedule A) to be the projects internal rate of return. The income tax rate and pre-tax rate of return on capital employed considered by GAIL in its tariff submission, are as follows:

Financial Year(s)	2009-10	2010-11	2011-12, 2012-13	2013-14, 2014-15	2015-16, 2017-18	2018-19 Onwards
Income Tax Rate	33.99%	33.22%	32.45%	33.99%	34.61%	34.94%
Pre-tax rate of return	18.17%	17.97%	17.76%	18.18%	18.35%	18.45%

4.11. **Zonal Apportionment**

Since the length of KKB MPL exceeds 300 kms, the apportionment of levelized tariff into zonal tariff is required to be done.

5. **Comments of stakeholders sought**

5.1. Determination of the natural gas pipeline tariff is a time bound exercise. PNGRB solicits the views of all the stakeholders in writing on GAIL’s tariff filing for the KKB MPL Network within 15 days of issue of this document i.e. by 01.08.2019 at the following address:

*Secretary,
Petroleum and Natural Gas Regulatory Board,
1st Floor, World Trade Centre,
Babar Road, New Delhi 110001.
Email:- secretary@pngrb.gov.in*

5.2. Stakeholders other than GAIL to mark copy of all comments to GAIL at following address:

*Chief General Manager (Mktg.-RA)
GAIL (India) Limited
GAIL Bhawan,
16, Bhikaiji Cama Place,
New Delhi-110066
Email: cragroup@gail.co.in*

5.3. GAIL to submit its response on comments of other stakeholders to PNGRB within 4 days from the last date of comments to be submitted by stakeholders as mentioned at point no. 5.1 above i.e. by 05.08.2019.

5.4. Open house to discuss the comments of all the stakeholders shall be held on 07.08.2019 11:00 hours at PNGRB office as per address mentioned at para 5.1 above.

(Vandana Sharma)
Secretary
For and on behalf of the Board