



Petroleum and Natural Gas Regulatory Board New Delhi

Public Consultation Document (PCD)

(PNGRB/COM/2-NGPL Tariff (1)/2013 P-305 20th Sep 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	Cauvery Basin Natural Gas Pipeline (“ CBPL ”)	
Sub-networks	Narimanam and Kutthalam Sub-Network (“ NKM ”) Ramnad Sub-Network (“ RMD ”)	
Authorization	Under Regulation 17 (1) of PNGRB (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008	
Pipeline Sub-Network	NKM	RMD
Provisional capacity	2.00 MMSCMD	2.33 MMSCMD
Common carrier capacity	0.50 MMSCMD	0.58 MMSCMD
Length	230.67 km	9.62 km
Economic life	up to 31.03.2025	up to 21.03.2027

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, 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. Tariff review of CBPL is due on 01.04.2020.
- 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/02/2016 dated 26.05.2016 notified the final tariff for NKM up to 31.03.2025 and RMD up to 21.03.2027.
- 2.2. The levelized final tariff as approved by PNGRB are as follows:

Rs. MMBTU / GCV basis

Period	NKM	RMD
20.11.2008 to 31.03.2016	7.47	3.07
01.04.2016 onwards	17.41	16.63

3. GAIL filed its proposal for tariff review for CBPL vide letter dated 06.08.2019, based on actual data up to FY 2018-19. Salient features of levelized tariff submitted by GAIL are as follows:

Pipeline Sub-Network	NKM	RMD
Levelized tariff from 20.11.2008 to 31.03.2016 (Rs MMBTU/GCV)	7.47	3.07
Levelized tariff from 01.04.2016 to 31.03.2020 (Rs MMBTU/GCV)	17.41	16.63
Levelized tariff from 01.04.2020 onwards (Rs MMBTU/GCV)	99.49	24.44
Number of working days in a year	345	345
Annual inflation rate in percentage (%)	4.58	4.58
Capex from 20.11.2008 to 31.03.2025 (Rs in Crore) excluding Line Pack	374.59	42.53
Opex from 20.11.2008 to 21.03.2027 (Rs in Crore)	213.13	340.42
Unaccounted Gas Loss from 20.11.2008 to 31.03.2025 (for NKM) and 20.11.2008 to 21.03.2027 (RMD) (Rs in Crore)	26.34	35.40
Line Pack (Rs in Crore)	0.086	0.006
Working Capital at the end of economic life (Rs. in Crore)	13.53	5.81
Terminal Value including Line pack and Working Capital (Rs in Crore)	265.42	38.32

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 NKM up to 31.03.2025 and RMD up to 21.03.2027.

4.2. Capex:

GAIL in its tariff filing has claimed total Capex for NKM of Rs.374.59 Crore from 20.11.2008 to 31.03.2025 and for RMD Rs 42.53 Crore from 20.11.2008 to 21.03.2027. This is discussed below under two heads: actual Capex outgo including CWIP from 20.11.2008 to 31.03.2019 and future Capex projections from FY 2019-20 onwards till the end of the economic life considered.

4.2.1. Actual Capex Outgo including CWIP from 20.11.2008 to 31.03.2019

GAIL in its tariff filing has claimed a total Capex outgo (including CWIP) excluding IDC and Line Pack from 20.11.2008 to 31.03.2019 for NKM Rs. 222.95 Crore and for RMD Rs 37.51 Crore. Year-wise breakup of Capex claimed in tariff filing submitted by GAIL is as follows:

NKM			Rs in Crore	
Period ending	Site Capex	Common Corporate Capex	Actual CWIP	Total
1	2	3	4	5 = 2+3+4
20.11.2008	83.63	0.57	1.05	85.25
30.09.08 to 31.03.09	0.41	0.00	(0.35)	0.06
2009-10	0.05	0.04	(0.70)	(0.61)
2010-11	0.24	0.04	0.00	0.28
2011-12	0.10	0.65	0.00	0.75
2012-13	4.22	0.13	0.00	4.35
2013-14	1.05	0.16	0.00	1.21
2014-15	0.13	0.47	0.00	0.60
2015-16	1.44	0.11	43.23	44.78
2016-17	0.82	0.09	31.61	32.52
2017-18	54.27	0.42	(38.99)	15.70
2018-19	20.83	0.13	17.11	38.07
Total	167.18	2.81	52.96	222.95

RMD			Rs in Crore	
Period ending	Site Capex	Common Corporate Capex	Actual CWIP	Total
1	2	3	4	5 = 2+3+4
20.11.2008	12.81	0.56	0.00	13.37
30.09.08 to 31.03.09	(0.07)	(0.00)	0.00	(0.07)

Period ending	Site Capex	Common Corporate Capex	Actual CWIP	Total
1	2	3	4	5 = 2+3+4
2009-10	0.11	0.04	0.00	0.15
2010-11	0.01	0.04	0.00	0.05
2011-12	0.17	0.59	0.32	1.08
2012-13	(0.02)	0.07	0.00	0.04
2013-14	4.06	0.17	(0.32)	3.91
2014-15	2.91	0.59	0.00	3.50
2015-16	3.09	0.18	0.23	3.50
2016-17	2.28	0.14	0.17	2.59
2017-18	8.04	0.32	(0.21)	8.16
2018-19	1.02	0.14	0.09	1.25
Total	34.41	2.83	0.28	37.51

4.2.2. Future Capex Projections

GAIL in its submission has claimed future Capex for NKM of Rs. 151.65 Crore (Rs. 150.37 Crore without inflation) from 01.04.2019 to 31.03.2025 and for RMD Rs 5.01 Crore (Rs 4.31 Crore without inflation) from 01.04.2019 to 21.03.2027. Details of future Capex claimed by GAIL are as under:

S no.	Description	Rs in Crore	
		NKM	RMD
1	Project Execution (PE) Capex	112.19	0.31
2	PD Capex- LMC	6.73	4.70
3	O&M non-recurring Capex	32.72	
	Total	151.65	5.01

4.2.2.1. Project Execution (PE) Capex

Under this head, GAIL in its tariff filing has claimed Rs. 112.19 Crore (Rs 111.65 Crore without inflation, comprising of Rs 104.84 Crore Madanam Tie-in Connectivity and Rs 6.81 for pipeline replacement project) for NKM and Rs 0.31 Crore for RMD (for Pipeline Replacement Project).

4.2.2.2. **PD Capex**

GAIL has claimed total PD Capex of Rs. 6.73 Crore for NKM (Rs 6.00 Crore without inflation) @ Rs 1.00 Crore per year from 01.04.2019 to 31.03.2025 and Rs 4.70 Crore for RMD (Rs 4.0 Crore without inflation) @ Rs 0.50 Crore per year from 01.04.2019 to 21.03.2027, towards Last Mile Connectivity.

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

Under the head, GAIL has claimed total O&M Non recurring Capex of Rs. 32.72 Crore for NKM. The major items under this head includes: supply/installation/commissioning of Industrial UPS, Dual metering system for terminals, Inline Inspection (ILI) of Pipelines, ILI for FOEC-Kuthalam DT, USM based dual metering system and check metering system, ER probe, corrosion Coupons and RTU Panel.

4.3. **Operating Expenses (Opex)**

In its tariff filing, GAIL has claimed a total Opex of Rs. 213.13 Crore from 20.11.2008 to 31.03.2025 for NKM and Rs 340.42 Crore from 20.11.2008 to 21.03.2027 for RMD. This is discussed below under two heads i.e. Actual Opex outgo from 20.11.2008 to 31.03.2019 and future Opex projections from 01.04.2019 to 31.03.2025 for NKM and from 01.04.2019 to 21.03.2027 for RMD.

4.3.1. **Actual Opex from 20.11.2008 to 31.03.2019**

GAIL in its tariff filing, dated 01.07.2019, has claimed actual total Opex of Rs.99.80 Crore from 20.11.2008 to 31.03.2019 for NKM and for RMD Rs 118.92 Crore from 20.11.2008 to 31.03.2019 as under:

NKM		Rs in Crore	
Financial Year	Site Opex	Corporate Common Opex	Total Opex
20.11.08 to 31.03.09	2.27	0.54	2.81
2009-10	4.15	1.44	5.59
2010-11	4.87	1.61	6.48
2011-12	4.79	1.23	6.03
2012-13	7.06	1.88	8.93

Financial Year	Site Opex	Corporate Common Opex	Total Opex
2013-14	7.48	1.22	8.71
2014-15	9.77	1.38	11.15
2015-16	6.26	1.32	7.58
2016-17	11.39	1.92	13.31
2017-18	7.83	7.93	15.76
2018-19	10.73	2.73	13.46
Total	76.59	23.21	99.80

RMD

Rs in Crore

Financial Year	Site Opex	Corporate Common Opex	Total Opex
20.11.08 to 31.03.09	1.84	0.38	2.22
2009-10	4.04	0.78	4.82
2010-11	4.26	1.17	5.43
2011-12	5.63	1.02	6.65
2012-13	7.27	1.19	8.46
2013-14	7.98	1.17	9.15
2014-15	12.32	1.51	13.83
2015-16	11.10	1.73	12.83
2016-17	11.88	2.77	14.65
2017-18	15.12	3.40	18.52
2018-19	19.56	2.80	22.36
Total	100.99	17.93	118.92

4.3.2. **Future Opex**

GAIL in its tariff filing has claimed future Opex of Rs.113.33 Crore for NKM, from 01.04.2019 to 31.3.2025 and Rs 221.50 Crore for RMD from 01.04.2019 to 21.03.2027, under following heads:

- a) **Opex:** Under this head, GAIL has claimed actual Opex of FY 2018-19 and escalated the same @ 4.58 % per annum from 01.04.2019 to 31.03.2025 for Rs 95.44 Crore for NKM and from 01.04.2019 to 21.03.2027 for Rs 219.80 Crore for RMD including additional Opex on account of pay revision, Rs 0.68 Crore in FY 2024-25 for NKM and Rs 0.74 Crore for RMD in FY 2026-27.

- b) **PD and PE Future Opex:** Under this head, GAIL has considered Rs 15.64 Crore for NKM and Rs 0.42 Crore for RMD and considered Opex @ 2.5% of future PD Capex and escalated @ 4.58% per annum.
- c) **Non-recurring O&M Opex:** Under this head, GAIL has claimed Rs. 2.24 Crore for NKM and Rs 1.28 Crore for RMD, considering inflation @ 4.58 % per annum, mainly on account of ICDA of pipelines, CCTV and monitoring Tower, CIPS, CAT and Coating Health Survey, Risk Assessment Survey, 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 for NKM is Rs. 26.34 Crore and for RMD Rs 35.40 Crore during the economic life.

4.5. **Volume Divisor**

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

Period	MMSCMD			
	NKM		RMD	
	Actual Volume	Volume considered in Tariff filing	Actual Volume	Volume considered in Tariff filing
20.11.08 to 31.03.09	1.4638	1.464	1.43	1.43
2009-10	1.6544	1.654	1.48	1.48
2010-11	1.163	1.163	1.41	1.412
2011-12	1.2617	1.262	1.72	1.722
2012-13	1.1672	1.167	1.61	1.605
2013-14	1.2727	1.273	1.97	1.967
2014-15	1.0657	1.066	1.89	1.891
2015-16	1.1971	1.267	1.25	1.363
2016-17	1.051	1.5	1.37	1.748
2017-18	1.0262	1.5	1.98	1.981

2018-19	1.0986	1.5	2	2.003
2019-20 to 2021-22		1.5		1.819
2022-23		1.5		1.748
2023-24 onwards		1.582		1.748

4.6. **Working Capital:**

GAIL, in its tariff submission, has considered working capital at end of economic life and average working capital of Rs.13.53 Crore and Rs.5.44 Crore p.a. for NKM and Rs.5.81 Crore and Rs 3.40 Crore p.a. for RMD respectively, during the economic life.

4.7. **Number of working days:**

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

4.8. **Line Pack:**

GAIL, in its tariff submission, has considered cash outflow towards line pack for NKM - Rs. 0.09 Crore and for RMD - Rs 0.006 Crore as on 20.11.2008.

4.9. **Terminal Value:**

GAIL in its tariff submission, has considered terminal value for NKM Rs. 265.42 Crore (Residual value of assets and Corporate Block as Rs. 251.80 Crore, Line Pack Rs 0.09 Crore and working Capital at the end of economic life of Rs.13.53 Crore) and RMD Rs 38.32 Crore (Residual value of assets and Corporate Block as Rs. 32.50 Crore, Line Pack Rs 0.01 Crore and working capital Rs 5.81 Crore), at the end of economic life.

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 for NKM and RMD in its tariff submission, are as follows:

Financial Year(s)	2008-09, 2009-10	2010-11	2011-12, 2012-13	2013-14, 2014-15	2015-16 to 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	18.18%	17.97%	17.76%	18.18%	18.35%	18.45%

4.11. **Zonal Apportionment**

As the length of the trunk pipeline is less than 300 km in both the sub-networks, there would be a single tariff zone. Therefore, no zonal apportionment of levelized tariff is required.

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 CBPL Network within 15 days of issue of this document i.e. by 04.10.2019 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 15 days from the last date of comments to be submitted by stakeholders as mentioned at point no. 5.1 above i.e. by 19.10.2019.

5.4.Open house to discuss the comments of all the stakeholders shall be held on 21.10.2019 10:30 hours at PNGRB office as per address mentioned at para 5.1 above.

(Vandana Sharma)

Secretary

For and on behalf of the Board