



Petroleum and Natural Gas  
Regulatory Board

## Public Consultation Document

(Ref: No. PNGRB/M(C)/2010-Vol IV dated 20.12.2018)

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**Subject:** Review of tariff under the provisions of the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008.

**Name of Entity:** GAIL (India) Limited [GAIL]

**Name of Pipeline:** K. G. Basin Natural Gas Pipeline Network

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### **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 (hereinafter referred to as "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 and then finalize the same considering the actual costs and data at the end of the financial year on the basis of audited accounts. Further the same is to be reviewed by the Board in terms of regulation 2(h) and 9 of tariff regulations. The transportation tariff is determined using the Discounted Cash Flow (DCF) method using actual and projected pipeline Capex and

Opex costs (in line with provisions of Tariff Regulations) over the entire economic life (25 years) 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 Transportation Tariff Order

PNGRB vide tariff order no. TO/01/2016 dated 16.03.2016 has issued final initial unit natural gas pipeline tariff applicable till the end of economic life (i.e. 11.02.2017) after following the due process and conducting three open houses as directed by Hon'ble APTEL. Tariff order was issued without considering any extension in the life of the pipeline beyond 11.02.2017. Extension of economic life beyond 11.02.2017 is under consideration of the Board.

As per the final terms and conditions of acceptance to Central Government Authorization for K. G. Basin Natural Gas Pipeline Network of GAIL vide communication dated 12.05.2010, the provisional capacity as per the acceptance letter is 15.997 MMSCMD including common carrier capacity of 4 MMSCMD. In furtherance to the final terms and conditions of acceptance issued on 12.05.2010, PNGRB vide communication dated 05.04.2013 stated the length of the pipeline as approx. 877.86 kms and provisional capacity of 15.997 MMSCMD including common carrier capacity of 4 MMSCMD.

The final transportation tariff as proposed by GAIL and as determined by PNGRB are as follows:

(Rs. / MMBTU on GCV basis)

Particulars	Final Tariff proposed by GAIL	Final Tariff determined by PNGRB
Tariff from 2008-09 to 2014-15	5.56	5.56
Tariff in 2015-16	180.77	5.56
Tariff in 2016-17	180.77	45.32

3. PNGRB vide its letter no PNGRB/ M(C )/2010-Vol.VI dated 25.09.2018 asked GAIL to make updated tariff filing with actual data upto 2017-18. Details of tariff filing submitted by GAIL is given below:

GAIL filed its proposal for transportation tariff for K. G. Basin Natural Gas Pipeline vide letter dated 22.10.2018. GAIL has submitted the following tariff.

Tariff Proposed by GAIL	Rs./MMBTU
From 2008-09 to 2015-16	5.56
For 2016-17 to 2018-19	45.32
From 2019-20 till 11.02.2027	47.20

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 K G basin Pipeline Network from 12.02.1992 to 11.02.2027.

**4.2.Capital Expenditure (Capex):**

In its tariff filing, GAIL has claimed a total Capex of Rs. 1961.75 crore from 2008-09 till the end of its economic life in 2026-27. This is discussed below under five heads: Net Block, Capital Work in Progress (CWIP), Actual Capex outgo including CWIP from 2008-09 to 2017-18, future Capex projections and common corporate assets.

- (a) Capex as on 30.09.2008 (Net Fixed Assets (NFA) / Net Block & CWIP)

GAIL in its tariff filing has submitted following Capex as on 30.09.2008:

Particulars	Rs. in Crores
NFA (considering depreciation @ 3.17% on pipeline assets since inception) including corporate assets	395.13
CWIP	54.36

(b) Actual Capex Outgo including CWIP from 2008-09 to 2017-18

GAIL in its tariff filing has claimed a total Capex outgo of Rs. 941.55 Crores from 2008-09 to 2017-18. This is the sum of net additions to assets and net additions to CWIP for each year. Year 2008-09 figure includes additions in fixed assets during Oct 08-March 09 and CWIP as on 31.03.2009. Year-wise breakup of Capex claimed in tariff filing by GAIL is as follows:

(Rs. in Crores)

Year	Capex
2008-09	9.00
2009-10	17.23
2010-11	32.78
2011-12	76.73
2012-13	26.95
2013-14	32.42
2014-15	165.34
2015-16	250.63
2016-17	251.33
2017-18	79.14
TOTAL	941.55

(c) Future Capex Projections:

GAIL has submitted future Capex as under:

In the its submission, GAIL has claimed total future Capex of Rs. 568.16 crore (including inflation) from 2018-19 till end of economic life in 2026-27.

Future Capex claimed according to this submission is discussed as under:

(Rs. in Crore)

S. No.	Description	From 2018-19 till end of economic life
<b>1</b>	<b>Project Execution (PE)</b>	<b>329.39</b>
1.1	Tie in connectivity of Odalrevu field	75.01
1.2	Tie in connectivity of Bantumilli field	104.16
1.3	KG Basin Pipeline Replacement Project	150.23
<b>2</b>	<b>O&amp;M Capex</b>	<b>143.80</b>
2.1	Conversion of non-piggable to piggable	143.80
<b>3</b>	<b>PD (Source tie-in and LMC connectivity)</b>	<b>94.97</b>
3.1	Modification work at ODURU for reverse flow	15.69
3.2	APGDC interconnectivity	33.31
3.3	LMC	45.97
	<b>Total (1+2+3)</b>	<b>568.16</b>

(i) Project Execution (PE) Capex

Under the head PE, GAIL in its tariff filing has claimed total future Capex of Rs. 329.39 Crore to be incurred during the year 2018-19 and 2019-20.

(ii) O&M Capex

Under O&M Capex head, GAIL has claimed a total future Capex of Rs.143.80 Crores to be incurred from 2018-19 till the end of economic life (i.e. 2026-27) of the pipeline.

(iii) PD Capex

Under PD head, GAIL has claimed a total future Capex of Rs. 94.97 Crores, out of which Capex for Modification work at ODURU for reverse flow and APGDC interconnectivity to be done during 2018-

19 to 2020-21 and Capex for LMC to be done during 2018-19 till the end of economic life i.e., 2026-27

(d) Common Corporate Assets

Year-wise actual common corporate gross block of assets allocated to K. G. Basin network and included in Capex mentioned in point no. 4.2.(b) above as given in the tariff filing by GAIL is as follows:

(Rs. in crore)

Year	Tariff Filing
2008-09	6.36
2009-10	6.97
2010-11	13.30
2011-12	26.06
2012-13	26.08
2013-14	21.52
2014-15	18.00
2015-16	10.71
2016-17	16.02
2017-18	17.87

(e) 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 has considered total line pack of 3.67 MMSCM as on 30.09.2008 having value of Rs. 2.54 Crores in its tariff filing.

### 4.3. Operating Expenses (Opex)

In its tariff filing, GAIL has claimed a total Opex of Rs. 1814.87 crore from 2008-09 till the end of its economic life in 2026-27. This is discussed below under three heads: Actual Opex outgo from 2008-09 to 2017-18, future Opex projections (2018-19 to 2026-27) and common corporate expenses.

#### (a) Actual Opex from 2008-09 to 2017-18

GAIL in its tariff filing has claimed total Opex of Rs. 708.28 Crores from 2008-09 to 2017-18 including common corporate expense of Rs. 272.60 Crores. Year-wise breakup of Opex claimed in tariff filing submitted by GAIL is as follows:

(Rs. in crore)

Year	Site Opex	Common Corporate Opex Allocated in K G Basin
From 20.11.2008 to 31.03.2009	10.99	6.36
2009-10	14.73	20.13
2010-11	23.65	41.57
2011-12	27.58	31.48
2012-13	31.17	56.86
2013-14	34.65	31.12
2014-15	95.64	25.07
2015-16	100.67	15.45
2016-17	73.66	22.66
2017-18	22.93*	21.90
TOTAL	435.68	272.60

\*During the year 2017-18 GAIL has netted off Opex booked on account of Gas Dehydration Unit hire charges in the FY 15-16 & 16-17 amounting to Rs. 38.50 Crores and Rs. 2.28 Crores on account of amount realised from de-commissioning of pipeline assets.

(b) Future Opex (and inflation rate)

GAIL in its tariff filing has claimed total Opex of Rs. 1106.59 Crores from 2018-19 till 11.02.2027. GAIL has inflated actual Opex of 2017-18(after removing extraordinary items mentioned above) with the inflation rate of 4.58%. Further annual Opex of 2.5% of the Capex incurred on account of additional connectivity to APGDC, Tie in connectivity of Odalrevu field, Tie in connectivity of Bantumilli field, Modification work at ODURU for reverse flow and LMCs to be laid is also considered as PD future Opex. Further same is also inflated with 4.58% annually.

O&M Opex - GAIL has also claimed a total future O&M Opex (non-recurring) of Rs. 83.70 Crores from 2018-19 till 11.02.2027.

#### 4.4.Unaccounted Gas

In addition to the Opex, GAIL has considered 0.3% of the throughput as unaccounted gas loss, as a cost to be recovered through the transportation tariff. GAIL in its tariff filing has claimed a total unaccounted gas loss of Rs. 1333.36 Crores from 2008-09 to 2017-18 and Rs. 135.68 Crores from 2018-19 till 11.02.2027.

#### 4.5.Volume Divisor:

As per the final terms and conditions of acceptance to Central Government Authorization issued by PNGRB the total capacity for K. G. Basin Natural Gas Pipeline Network is 15.997 MMSCMD including common carrier capacity of 4 MMSCMD.

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

Year	Capacity (In MMSCMD)
08-09	5.91
09-10	13.45
10-11	15.94



11-12	14.22
12-13	14.34
13-14	14.37
14-15	3.46
15-16	7.19
16-17	12.00
17-18 & Onwards	12.00

#### **4.6. Working Capital:**

GAIL, in its tariff submission, has considered total working capital of Rs. 47.11 Crores. Working capital is calculated as sum of 30 days of Opex (excluding depreciation) and 18 days of revenue (tariff receivables), in conformity with the Tariff Regulations.

#### **4.7. Number of Working Days:**

As per the Clause 14(3) of the Access Code Regulations, the planned maintenance period shall not exceed 10 days in a year. On this basis, there would be 355 working days for a pipeline in one financial year. GAIL has considered 345 days as operating days in a year.

#### **4.8. 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. It is considered as cash inflow at the end of economic life of the pipeline.

GAIL, in its tariff submission, has considered a terminal value of Rs.990.32 Crores which includes WDV of assets, working capital and line pack.

#### **4.9. 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 pre-tax rate of return on capital employed shall be computed by grossing-up twelve percent by the nominal rate of income tax applicable for corporate assesses. Rates of corporate income tax applicable each year to GAIL and subsequent computation of pre-tax rate of return (as submitted by GAIL) are as follows:

<b>Financial Year</b>	<b>2008-09 &amp; 2009-10</b>	<b>2010-11</b>	<b>2011-12 &amp; 2012-13</b>	<b>2013-14 &amp; 2014-15</b>	<b>2015-16 to 2017-18</b>	<b>2018-19 &amp; Onwards</b>
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%

#### **4.10. Zonal Apportionment**

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. As per Final Authorisation Letter the length of K. G. Basin Natural Gas Pipeline Network is 834.81 Kms., however length of total trunk line is 298 Kms, therefore there would be a single tariff zone.

### **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 K G Basin Natural Gas Pipeline Network within 15 days of issue of this document i.e. by 04.01.2019 at the following address:

*Secretary,*

*Petroleum and Natural Gas Regulatory Board,*

*1<sup>st</sup> 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](mailto: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 19.01.2019

5.4. Open house to discuss the comments of all the stakeholders shall be held at 11:00 Hrs on 24.01.2018 at PNGRB office as per address mentioned at para 5.1 above.

(Vandana Sharma)

Secretary

For and on behalf of the Board