Petroleum & Natural Gas Regulatory Board, India

Public Consultation Document

(Ref: No. PNGRB/M(C)/10-Vol II dated 11/12/2017)

Subject:	Final initial unit natural gas pipeline tariff under the provisions of the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008.
Name of Entity:	Indian Oil Corporation Limited (IOCL)
Name of Pipeline:	Dadri-Panipat Natural Gas Pipeline (DPPL)
Acceptance of Central Government Authorisation:	Infra/PL/New/17/DPPL/IOCL/01/11 dated 05.01.2011
Maximum Achievable Capacity:	9.5 MMSCMD from 18.07.2010 till 31.03.2012 (MI/NGPL/GGG/Capacity/IOCL dated 09.11.2012)
Length:	132 km
Commissioning date	18.07.2010

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.

2. Provisional Transportation Tariff Orders

2.1. PNGRB issued a provisional tariff order no. TO/11/2013 dated 11.09.2013 determining the provisional initial unit natural gas pipeline tariff under the provisions of the Tariff Regulations for DPPL of IOCL (available on PNGRB's website). The provisional transportation tariff as proposed by IOCL and as determined by PNGRB are as follows:

Particulars	Provisional Tariff proposed by IOCL (Rs. / MMBTU on GCV basis)	Provisional Tariff determined by PNGRB (Rs. / MMBTU on GCV basis)
Levelized Provisional Transportation Tariff	18.25	10.20

3. Tariff Filing by IOCL

3.1. IOCL in its tariff filing has submitted the following tariff:

Final tariff submitted by IOCL in its tariff filing (tariff model in excel sheet)

Financial Year	Rs./MMBTU (GCV basis)
2010-11 to 2017-18	10.20
2018-19 to 2035-36	38.45

4. Details of tariff filing by IOCL

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

4.1. Economic Life of Pipeline and Commissioning

In the tariff filing, IOCL has submitted commissioning date of Dadri-Panipat Natural Gas Pipeline as 18.07.2010 and has considered economic life of the pipeline for a period of 25 years up to 17.07.2035 with pre construction period from 2007-08 to 2009-10.

4.2. Capital Expenditure (Capex)

IOCL, in its tariff submission, has considered total capex outgo of Rs. 494.47 Crore from 2007-08 to 2020-21. The head-wise breakup is as follows:

Particulars	(Rs. in Crs)
Pre Commissioning Capex from FY 07-08 to 09-10	332.86
Actual capex outgo from FY 10-11 to 16-17	105.41
Future capex outgo projections from FY 17-18 to 20-21	56.20
Total	**494.47**

4.2.1. Pre Commissioning Capex

Pre-Commissioning capital expenditure for period from FY 2007-08 to 2009-10 as per tariff filing and CA certificates submitted by IOCL is as follows:

(Rs. in Crore)

Tariff Filing	CA Certificate
332.86	332.86

IOCL vide its email dated 18.04.2013, in response to PNGRB's email dated 15.04.2013, submitted that Rs. 0.04 Crore has been capitalized on account of interest during construction period for whole DPPL project. However, IOCL has not provided any CA certificate for IDC.

4.2.2. Actual capex outgo from FY 2010-11 to FY 2016-17

IOCL, in its tariff filing, has claimed total actual capex outgo (including CWIP, Land & ROU) of Rs. 105.41 Crore from FY 2010-11 to 2016-17. Year-wise breakup of capex claimed in tariff filing duly certified as per CA certificates submitted by IOCL is as follows:

(Rs. in Crore)

Year	Tariff Filing	CA Certificate
2010-11	44.21*	30.32

*IOCL in its submission stated that Rs.44.21 Crore includes Rs.13.89 Crore for line pack.

IOCL in its quarterly submission certified by CA has submitted, opening balance of fixed assets as on 18.07.2010 of Rs.72.91 Crore and CWIP of Rs. 247.91 Crore and balance of fixed assets as on 31.03.2011 of Rs. 363.18 Crore.

(Rs. in Crore)

Year	Tariff Filing	CA Certificate	As per Trial Balance	Reasons of differences submitted by IOCL
2011-12	0.00	(0.04)*	(0.04)	Various penalties are imposed on contractor for delayed completion of work etc. Since such delays have resulted in extra cost to IOCL, these penalties are not reduced from capex considered for tariff working.
2012-13	28.27	7.72	7.72	1st installment of upfront payment to GAIL for 10 MMSCMD upgradation at Dadri pending capitalization in the books.

2013-14	20.89	0.34	0.34	2nd installment of upfront payment to GAIL for 10 MMSCMD upgradation at Dadri pending capitalization in the books.
2014-15	11.55	11.55(a)	(1.87)	Difference of Rs. 13.42 crore is on account of adjustment of claim for non-execution of contracts. Various penalties are imposed on contractor for delayed completion of work etc. Since such delays have resulted into extra cost to IOCL, these penalties are not reduced from capex considered in tariff working.
2015-16	0.08	0.01(b)	(0.14)	Decapitalisation due to penalty imposed on contractor
2016-17	0.41	0.04(c)	(0.17)	Decapitalisation due to penalty imposed on contractor
Total	**105.41**	**19.62**	**5.84**	

FY 2012-13:- Includes Spur lines to customers (Rs.7.76 Cr (1.736 Kms), and includes Rs.20.55 Crores towards connectivity charges with HVJ/DVPL network at Dadri

FY 2013-14:- Includes Rs. 20.55 Crores towards connectivity charges with HVJ/DVPL network at Dadri.

FY 2014-15:- Includes Rs.11.34 Cr (6.677 Kms).

*As per CA Certified Annual/QPR report

Comments as per CA Certificate

(a) Net additions of Rs. 1154.88 lakhs include capitalization of Rs.1134 lakhs on account of DPPL-MPL commissioning and excluding decapitalisation of Rs.1342.36 Lakhs due to adjustment on account of non-execution of contracts.

(b) Net addition of Rs.1.60 lakhs excludes decapitalisation of Rs.20.59 lakhs due to adjustment on account of final bill of vendors

(c) Net additions of Rs.4.88 lakhs exclude decapitalisation of Rs. 58.88 lakhs due to implementation of Ind-AS-16.

4.2.3. Future Capex Outgo from FY 2017-18 to FY 2020-21

IOCL, in its tariff filing, has claimed total future capex outgo of Rs. 56.20 Crore from FY 2017-18 to FY 2020-21. Year wise breakup of the future capex proposed by IOCL is as follows:

(Rs. in Crore)

Year	**Amount**	**Remarks**
2017-18	26.20	Replacement of filtration unit, Installation of Natural Gas Analyser, Modification in Panipat station facilities to overcome operations, CGD connectivity
2018-19	10.00	CGD connectivity
2019-20	10.00	LMC connectivity
2020-21	10.00	CGD connectivity
TOTAL	**56.20**	

4.3. **Operating Expenses (Opex)**

IOCL in its tariff submission has claimed total opex of Rs.1255.33 Crore including unaccounted gas loss of Rs.495.10 Crore (Rs.760.23 Crore excluding unaccounted gas loss). Head-wise breakup of opex (excluding unaccounted gas loss) considered by IOCL in its tariff submission for the entire economic life of the pipeline is as follows:

Particulars	(Rs. in Crore)
Actual opex outgo (FY 10-11 to 16-17)	64.03
Future opex projections (2017-18 to 2035-36)	696.20
Total	**760.23**

4.3.1. <u>Actual Opex Outgo from FY 2010-11 to FY 2016-17</u>

In its tariff filing, IOCL has claimed opex of Rs.64.03 Crore from FY 2010-11 to 2016-17. Year-wise breakup of opex claimed in tariff filing and that certified in CA certificates submitted by IOCL is as follows:

(Rs. in Crore)

Financial Year	Tariff Filing	CA Certificates	As per Trial Balance^	As per Trial Balance**
2010-11	4.60	4.60	4.60	4.60
2011-12	6.16	6.16	6.21	6.10
2012-13	7.85	7.85	7.84	7.18
2013-14	7.51	7.51*	7.95	7.94
2014-15	11.56	11.56	11.56	11.55
2015-16	12.97	12.96	12.96	12.90
2016-17	13.39	13.39	13.39	12.70
Total	**64.03**	**64.03**	**64.50**	**62.96**

*CA certificate vide remarks states as "excluding rent of Rs.44.15 lakh and amortisation of advance to GAIL for providing 10 MMSCMD facility as already taken in capex outflow by IOCL".

^Operating expenditure as per trial balance without deducting miscellaneous incomes.

** Expenditure as per Trial Balance after deducting miscellaneous incomes.

As per the submission made by IOCL, actual capex as mentioned above of Rs.64.03 Crore includes Rs.7.54 Crore towards Pipeline HO Expenses and Rs.34.29 Crore towards Service charges paid to

Refinery and common station expenses in DPPL network. In response to PNGRB's letter, IOCL vide its letter dated 04.12.2017 submitted CA certificate towards the nature and basis of allocation and justification of such expenses which states as under:

Quote

(i) "Pipeline HO expenses: Pipeline Head Office, being an administrative office incurs various expenses like employee cost etc. for monitoring and managing functions of various pipelines units of the division. The cost so incurred is allocated to pipeline units on a systematic basis during FY 2010-11 to 2016-17. We have checked the allocation of above expenses and observed that same are allocated to pipeline unit in a systematic manner in the weighted average ratio of pipeline length and installed capacity.

(ii) Refinery expenses: These expenses include the expenses made by refinery in maintaining the township and common station expenses like employee cost, etc. This includes township maintenance expenses, electricity expenses, water and other charges for monitoring and managing function of various pipeline units falling within its administration. The cost so incurred is allocated to pipeline units on a systematic basis during FY 2011-12 to 2016-17. We have checked the allocation of above expenses and observed that same are allocated to pipeline unit in a systematic manner in the weighted average ratio of pipeline length and installed capacity."

Unquote

4.3.2. Future opex projections from FY 2017-18 to FY 2035-36

In its tariff filing, IOCL has claimed a future opex of Rs. 696.20 Crore (Rs.245.04 Crore without escalation) from FY 2017-18 to FY 2035-36. IOCL has considered annual escalation rate/inflation rate of 10% p.a. from FY 2017-18 onwards on the operating expenses considered in FY 2016-17.

4.4. **Unaccounted Gas Loss**

IOCL has considered unaccounted gas loss of Rs.495.10 Crore, as a cost to be recovered through the transportation tariff. It has claimed a total net unaccounted gas loss of Rs.47.25 Crore from FY 2010-11 to FY 2016-17 and Rs.447.85 Crore from 2017-18 to 2035-36. IOCL has provided CA certified details of net transit gas loss of Rs. 47.27 Crore for FY 2010-11 to FY 2016-17 i.e. certificate of unaccounted gas loss, consisting year wise details, included in the operating expenditure. For remaining years i.e. from FY 2017-18 to FY 2035-36, IOCL has considered 0.30% of volume considered (maximum of normative or actual) for 355 operating days as transit gas loss/unaccounted gas loss.

4.5. **Volume Divisor**

Year-wise capacities considered by IOCL in its tariff submission are as follows:

Financial Year	Capacity (in MMSCMD)
2010-11	0.97
2011-12	1.89
2012-13	2.71
2013-14	3.29
2014-15	3.84
2015-16	3.88
2016-17 & 2017-18	4.46
2018-19 onwards	7.13

4.6. **Weighted Average Heat Value:**

As per Clause 6 of Schedule A of Tariff Regulations, the volume of natural gas determined as per the regulations shall be converted into its energy equivalence in MMBTU terms for the purpose of determination of final initial unit natural gas pipeline tariff by considering the weighted average heat value of natural gas delivered to customers during the initial unit natural gas pipeline tariff period. IOCL, in its tariff submission has considered weighted average heat value of different natural gases likely to be transported as 1MMSCM=37278 MMBTU. Subsequently, in response to PNGRB's letter, IOCL in its submission vide letter dated 04.12.2017 has submitted CA certified year wise weighted average heat value ("WAHV") as follows:

FY	**10-11**	**11-12**	**12-13**	**13-14**	**14-15**	**15-16**	**16-17**
WAHV	36977	37795	38209	38246	38260	38082	37621

4.7. **Working Capital**

In the tariff filing, IOCL has considered total working capital of Rs.8.22 Crore calculated as sum of 30 days of opex (including unaccounted gas considered in tariff filing) and 18 days of revenue.

4.8. **Number of Working Days**

IOCL has considered 355 operating days for all years from FY 2010-11 to FY 2034-35 and 106.5 (355*0.3) operating days in FY 2035-36 i.e. upto 17.07.2035.

4.9. **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 at the end of the economic life of the pipeline. In addition to IOCL's submission mentioned in para 4.2.2, IOCL, in its tariff filing, has considered line pack of Rs. 13.89 Crore as cash outflow in FY 2010-11. However, as per CA certificate it is stated that "capital expenditure incurred Rs. 315.53 Lacs towards initial line pack of Dadri Panipat R-LNG line upto 1st August 2010. IOCL has submitted a CA certificate for line pack quantity and value of gas in September 2014 as Rs. 13.54 Crores. IOCL in its submission has further stated as follows:

(i) At the time of commissioning, DPPL was operated at low pressure conditions. Therefore, line pack volume was on lower side. Accordingly, line pack capex as on 01.08.2010 was provided to PNGRB for provisional tariff calculations.

(ii) However, after commissioning of DPPL, pressure conditions raised significantly due to enhanced demand in DPPL. Accordingly, line pack also increased.

(iii) During, the earlier tariff data submission to PNGRB in January 2015 and April 2015, revised line pack data and its capex was accordingly submitted as Rs.13.89 Crores at September 2014 level. The same line pack conditions and its capex has been maintained at the present tariff data submission.

(iv) CA certified Capital Expenditure at September 2014 level towards line pack is for Rs. 13.54 Cr. The same was submitted as Rs.13.89 Cr in 2015 tariff filing. Minor variation in line pack cost in CA certificate is due to mmscmd and mmbtu conversion factors.

4.10. **Terminal Value**

Terminal Value is the sum of the residual value of the fixed assets, working capital and line pack and is cash inflow at the end of economic life of the pipeline. The terminal value considered by IOCL in its tariff filing is Rs.116.50 Crore which consists of Rs.94.39 Crores as residual value of fixed assets, Rs.8.22 Crores towards working capital and Rs.13.89 Crores towards line pack.

4.11. **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. IOCL has considered a flat rate of 18.18% as pre tax for the entire economic life of the pipeline for the purpose of discounting. Subsequently, in response to PNGRB’s letter, IOCL in its submission vide letter dated 04.12.2017 has submitted year wise income tax rate as follows:

FY	**09-10**	**10-11**	**11-12 to 12-13**	**13-14 to 14-15**	**15-16 to 16-17**
Effective tax rate	33.99%	33.22%	32.45%	33.99%	34.61%

4.12. **Zonal Apportionment**

Since the length of the DPPL network of IOCL does not exceed 300 km, the apportionment of the levelized tariffs is not required to be undertaken.

5. **Views of stakeholders sought**

5.1. Determination of the final initial unit natural gas pipeline tariff is a time bound exercise. PNGRB solicits the views in writing of stakeholders on IOCL's tariff filing for the Dadri-Panipat Natural Gas Pipeline Network within 15 days of the issue of this document 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

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