



Public Consultation Document
(Ref: No. PNGRB/M(C)/IV dated 04.05.2018)

Subject:	Final initial unit natural gas pipeline tariff (“Final Tariff”) under the provisions of the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008. (“Tariff Regulations”)
Name of Entity:	East West Pipeline Limited (EWPL) earlier known as Reliance Gas Transportation Infrastructure Limited (RGTIL) till 20.03.2018
Name of Pipeline:	East West Natural Gas Pipeline (EWNGPL)
Acceptance of Central Government Authorization:	Infra/PL/Exis/17/RGTIL/01/10 dated 19.04.2010 (“Provisional Authorization Letter”) & Infra/PL/Exis/17/EWPL/RGTIL/01/13 dated 19.03.2013 (“Final Authorization Letter”).
Maximum Achievable Capacity:	85 MMSCMD – 01.04.2010-31.03.2011 95 MMSCMD – 01.04.2011-31.03.2012
Length:	1460 Kms
Economic Life	01.04.2009 to 31.03.2034

1. Regulatory Framework

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 Order

PNGRB notified a provisional tariff order no: TO/01/2010 dated 19.04.2010 (“provisional tariff order”) determining the provisional initial unit natural gas pipeline tariff (“provisional tariff”) under the provisions of the Petroleum and Natural Gas Regulatory Board (“PNGRB”) Tariff Regulations 2008, for EWNGPL of EWPL. The provisional tariff as proposed by EWPL and as determined by PNGRB are as follows:

Particulars	Tariff proposed by EWPL (Rs./MMBTU on GCV basis)	Provisional tariff determined by PNGRB (Rs. / MMBTU on GCV basis)
Levelized Provisional Transportation Tariff	55.91	52.23

As the length of the pipeline is more than 300 Kms, the zonal apportionment of the provisional tariff has been determined vide order dated 09.06.2010 as under:

Particulars	Tariff (Rs. / MMBTU on GCV basis)
Zone-1	15.00
Zone-2	42.00
Zone-3	53.69

Particulars	Tariff (Rs. / MMBTU on GCV basis)
Zone-4	58.75
Zone-5	60.94

3. PNGRB orders on final acceptance of authorization and capacity of EWPL

PNGRB has issued the Final Authorization for acceptance to the Central Government authorization for the EWNGPL of EWPL under Regulation 17(1) of PNGRB (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 (“Authorization Regulations”) vide letter no:Infra/PL/Exis/17/sEWPL/RGTIL/01/13 dated 19.03.2013. This authorization mentioned total system capacity of the EWNGPL as 85 MMSCMD for FY 2009-10 determined under the provisions of PNGRB (Determining Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations 2010 (“Capacity Regulations”) including capacity of 21.25 MMSCMD for use on common carrier, open access and non-discriminatory basis by any third party. The capacity assessment for the period beyond 2009-10 has since been completed as per PNGRB Capacity Regulations. The final capacity for the period 2010-11 and 2011-12 has been notified vide letter dated 10.07.2014 at 85 MMSCMD and 95 MMSCMD respectively.

4. Orders of Hon’ble Appellate Tribunal of Electricity (APTEL)

Final capacity declared by PNGRB vide letter dated 10.07.2014 has been challenged by EWPL in APTEL in appeal no.253 of 2014. RGTIL in its appeal had challenged the declaration of EWPL’s capacity for FT 2010-11 and 2011-12 by PNGRB. APTEL in its order dated 08.07.2016 set aside PNGRB’s declaration and remanded the matter to PNGRB. It directed PNGRB to pass a reasoned order within three months from the date of receipt of this order by respondent.

Pursuant to the APTEL directive, Board gave a personal hearing to EWPL on 08.08.2016. On 30.08.2016, a public notice was issued as per proviso 2(d) of the PNGRB (Determining Capacity of Petroleum Product and Natural Gas Pipeline, Regulations 2010, seeking comments from public if any, on the declared capacity in Schedule “C”, the report of the Capacity Assessment Group and comments received from EWPL on the same.

No comments were received during public consultation.

A hearing was granted to EWPL on 17.10.2016 wherein it sought a weeks’ time to make the summarized written submission. EWPL made the summarized written submissions on 26.10.2016. Capacity Assessment Group has then submitted its response on the submissions of EWPL in its report on capacity assessment on 15.12.2016.

Subsequently, PNGRB vide its order dated 30.12.2016 has declared capacity of EWNGPL of EWPL for the period from 01.04.2010 to 31.03.2011 and 01.04.2011 to 31.03.2012 as 85 MMSCMD and 95 MMSCMD respectively. Further EWPL has challenged PNGRB’s order dated 30.12.2016 pertaining to capacity of EWPL in APTEL appeal no. 39 of 2017.

5. Orders of Hon’ble High Court

EWPL had filed a writ petition in Hon’ble High Court of Delhi (W.P. (C) 3204/2014) seeking to direct PNGRB to determine the final unit tariff of EWNGPL within a reasonable time frame laid down by Hon’ble Court. Hon’ble High Court of Delhi in its order dated 09.02.2015 has directed respondent (PNGRB) to complete the exercise and fix the final tariffs within two months after the final disposal of the appeal no. 253 of 2014 by APTEL.

Subsequently, Hon’ble High Court Delhi vide its order dated 21.04.2017 has granted the extension for a period of six months from the date of availability of the complete Quorum of the Board to determine the final tariff of EWNGPL.

6. Details of tariff filing submitted by EWPL

EWPL, vide its communication dated 27.10.2017, proposed final tariff for EWNGPL as Rs. 78.72 per MMBTU from 01.04.2009 till the end of economic life of pipeline i.e. up to 31.03.2034. PNGRB has subsequently vide letter no. PNGRB/M(C)/04-Vol.III dated 01.01.2018 sought clarifications on tariff submissions. The revised tariff submission as submitted by EWPL vide letter dated 01.02.2018 (“updated tariff filing”) is as follows.

Financial Year	Rs. /MMBTU (GCV basis)
2010-11 to 2016-17	52.23
2018-19 to 2035-36	151.84

7. Expenditure Analysis

7.1 Economic Life of pipeline

EWPL has considered 01.04.2009 as the date of commissioning of EWPL and the economic life of the pipeline has been considered at 25 years from 01.04.2009 to 31.03.2034 as per the tariff filing model. EWPL has also considered pre-construction period from FY 2006-07 to FY 2008-09.

7.2 Capital Expenditure (Capex)

EWPL in its updated tariff filing for determination of final tariff has submitted the Capex of EWPL excluding interest during construction (IDC) as Rs.18736.71 crores.

The detailed break up of Capex as submitted are as under:

Particulars	Amount (Rs. crores)
Actual Capex (Including Pre-commissioning Cost) excluding IDC	16227.30
Additional connectivity future Capex estimates (Rs.700 cr without escalation)	700.00
Maintenance and replacement future Capex estimates of machinery (Rs.1259.41 cr without escalation) *	1809.41
Total	18736.71

*Escalation @ 5.13%

7.2.1 Actual Capex (Including Pre-Commissioning Cost)

EWPL under this head has claimed actual Capex of Rs. 16227.30 Crore from FY 2006-07 to FY 2016-17. Actual Capex submitted by EWPL in its updated tariff filing dated 27.10.2017 (“Tariff filing 2017”) and as per Annual Reports of EWPL was not matching.

Further PNGRB has sought reconciliation from EWPL between net additions to CAPEX from 2006-07 to FY 2016-17, Capex as per PNGRB provisional tariff order dated 19.04.2010, Capex as per tariff filing vide letter dated 27.10.2017 and Annual reports of EWPL. In this regard, EWPL submitted as follows:

Rs. in Crores

Year	Nett additions/ deletions to Assets (excluding IDC)	CA Certified		
		CAPEX as per PNGRB Approval 2010*	CAPEX as per Tariff Filing 2017	Annual Report
2006-07	7286	4672	4795	7473
2007-08	7269	6870	7051	8044
2008-09	1060	2558	2625	1646
2009-10	468	2278	1586	468
2010-11	11	0	210	11
2011-12	16	0	-15	16
2012-13	6	0	5	6
2013-14	-2	144	5	-2
2014-15	-78	114	-56	-78
2015-16	5	167	9	5
2016-17	-1	199	12	-1
Total	16040	17002	16227	17588

* As per PNGRB tariff order dated 19.04.2010

Further, EWPL has made the following submission w.r.t. the above table:

Quote

A) The Company, based on the report by an internationally reputed firm in pipeline engineering and project management, has revalued fixed assets

relating to East West pipeline as at 30.11.2011, viz. Freehold Land, Buildings, Plant and Machinery, Furnitures and Fixtures and Office Equipment by an incremental amount of Rs. 8688.46 Crore and an equivalent amount has been credited to revaluation reserve account. Additional charge of depreciation of Rs 436.14 Crore on account of revaluation has been debited to the statement of Profit and Loss.

- B) EWPL submitted capex of Rs 17310 crores for tariff computation in 2009. PNGRB subsequent to normative assessment, reduced the same by around 5 %. The figures shown are the figures taken by PNGRB for provisional tariff computation approved in 2010.
- C) Capex considered while tariff approval in 2010 by PNGRB was on actual basis for FY 06-07/ FY 07-08/ FY 08-09 and on estimated basis for FY 09-10 and reflect capex for pipeline construction.
- D) Capex as per Tariff filing dated 27th October 2017. Total capex found 2.5% higher than normative capex assessed by PNGRB. Hence actual capex for each year has been reduced by 2.5% for Tariff filing.

Unquote

Detailed breakup of actual Capex considered by EWPL in is tariff filing in 2017 is as follows.

Particulars	Total (Rs. crores)
Cash flow statement Purchase of Fixed Assets / Increase in CWIP (Annual Reports from 09-10 to 16-17)	16,414.550
Current Liabilities	(1.780)
Cash Flow Sale of Fixed Assets	(117.590)
Part decapitalisation of line pack quantities	(14.345)
Asset held for disposal (schedule G. Note 19 of Annual report of respective years Opening - closing)	(82.220)
Sub total	16,198.615

Adjustment for amount outstanding under project supervisory contract	-
Fringe Benefit Tax paid (Annual report)	3.580
Miscellaneous expenditure written off	1.980
Exchange difference (net) Sch "L"08-09, Sch "K" Fy 2009-10	293.810
Unrealised exchange difference (Annual report cash flow operating activities)	15.620
Inventories - Stores & spares (Annual report - schedule G)	249.380
Inventories - Stores & spares *	(70.650)
Less: lanco dedicated line no.1,2 assets CA Certified	(72.480)
Less: BGL Hook up charges CA certified	(23.600)
Addback: Depreciation till 05-06(as Per Annual report)	0.726
add back assets held for disposal reduced from cash flow	47.550
Capital Employed for DCF in Rs. Crs	16,644.530
Less: 2.5 % discount taken by EWPL in tariff filing	416.113
Total Cash Flow actuals till 2016-17 in tariff model	16,228.417

*CA certificate has not been provided.

7.2.2 Additional connectivity future Capex estimates

EWPL in its tariff filing has proposed a Capex of Rs. 700 crores for connectivity (Rs.400 crores – ONGC Odalveru, Rs.300 crores-Petronet LNG Terminal) in FY 2018-19 and 2019-20.

Further in response to PNGRB's query, EWPL has further submitted as follows:

It is submitted that detailed discussions with the concerned parties for both the connectivity are underway and estimates can be finalized once the technical details of the connectivity are frozen. Once the technical and other issues are resolved between parties, the further steps can be taken including the approval from Board. It may kindly be noted that inprinciple approval from the MD for both the connectivity (using ball park estimates) have already been submitted to PNGRB.

It may be appreciated with such low capacity utilization since many years the pipeline entity is facing great difficulty in meeting and financial obligations. Therefore, to improve the revenues, the pipeline entity is trying to connect to more sources. It is requested that the above capex requirement be considered while computing the final tariff lest it would be difficult to finance such expenditure.

7.2.3 Future Maintenance and replacement Capex:

EWPL in its submission has considered maintenance Capex of Rs.1809.41 crore (Rs.1259.41 crores without inflation) for Gas turbines and other machinery for midlife overhauling as well as replacement cost.

As per RGTIL earlier tariff filing proposal vide communication dated 22.07.2010, the total number of equipment for maintenance Capex at the time of provisional tariff filing for determination of Provisional Tariff and the equipment considered as per updated tariff filing submission dated 27.10.2017 is substantially different.

As per updated tariff filing, total 32 compressors that have been put up in the 10 compressor stations (certified by authorized signatory). Further out of 32 Compressors, 16 compressors have been considered for midlife overhaul (after running for 25000 hrs i.e.2.85 years). Out of these 16 Compressors, 15 compressors have been considered for full life overhaul (after running for 50000 hrs i.e.5.76 years). Further EWPL has not considered 12 Compressors at stations CS-3 (3 compressor units), CS-5 (3 compressor units), CS-8 (3 compressor units) and CS-9 (3 compressor units) for overhaul in the entire economic life of the pipeline.

Following are the details of station wise and compressor wise running hours and compressors considered for Overhaul purpose:

Stations	Running Hours of GTC as on 18.09.2017	Considered as due for Overhaul
CS-1 Unit A	27116	
CS-1 Unit B	35762	
CS-1 Unit C	22316	
CS-2 Unit A	15133	
CS-2 Unit B	21840	
CS-2 Unit C	15211	
CS-3 Unit A	10264	Not due for Overhaul
CS-3 Unit B	14460	Not due for Overhaul
CS-3 Unit C	8452	Not due for Overhaul
CS-4 Unit A	3917	
CS-4 Unit B	3252	
CS-4 Unit C	3575	
CS-5 Unit A	3736	Not due for Overhaul
CS-5 Unit B	4015	Not due for Overhaul
CS-5 Unit C	4262	Not due for Overhaul
CS-6 Unit A	13389	
CS-6 Unit B	7546	
CS-6 Unit C	9865	
CS-7 Unit A	5216	
CS-7 Unit B	5320	
CS-7 Unit C	6060	
CS-8 Unit A	2876	Not due for Overhaul
CS-8 Unit B	2957	Not due for Overhaul
CS-8 Unit C	2922	Not due for Overhaul
CS-9 Unit A	2002	Not due for Overhaul
CS-9 Unit B	1795	Not due for Overhaul
CS-9 Unit C	591	Not due for Overhaul
CS-10A Unit A	15827	
CS-10A Unit B	14818	
CS-10B Unit A	22400	
CS-10B Unit B	17132	
CS-10B Unit C	17838	

PNGRB vide its letter dated 01.01.2018 has sought bifurcation between maintenance and replacement Capex and past records of major/minor overhauling. EWPL in its updated tariff filing has stated as follows:

Quote

Since there have been continual reduction in the volume transported, there is substantial reduction in the annual running number of hours of the equipment (key equipment like compressors, GTC etc.). Looking at the volume decline and projections in the past few years, the situation did not warrant incurring large expenditure in terms of equipment overhaul, upgradation etc, Hence, there are no past details of the same. However, the gas supply situation is expected to improve in next 2/3 years which will warrant efforts / expenditure on key equipment upkeep to ensure gas deliveries.

It is submitted that though the tariff order dated 19.04.2010 mentioned about taking final view, the tariff regulations clearly provide estimating the capital and operating outflows over economic life. Also, the regulations clearly specify that capital employed include improvements, modification, expansion or replacement. Hence, it is reiterated that future capex which is reasonable and justifiable should be allowed to be factored in tariff computation which will be fine-tuned with actuals when the tariff reviews take place at later date.

Unquote

7.2.4 Maintenance capex as part of Opex: EWPL, in its submission, has also considered certain Capex as maintenance Capex. This was discussed in para 7.2 earlier (under the head Capex). The details provided in support of this expenditure, “maintenance capital expenditure” show that it is in the nature of periodic major overhauling/maintenance of the equipment’s. As these expenses are not those which will result in enhancing the life of the equipment and are for preserving the normal economic life of the assets they are being evaluated as part of Opex.

7.3 Operating Expenses (Opex)

EWPL in its updated submission, has submitted total Opex as Rs.40086 crores during the economic life of the pipeline. This can be bifurcated into (a) Actual Opex and (b) Future Opex.

7.3.1 Actual Opex incurred from FY 2009-10 to FY 2016-17 Rs.3223.85 crores

Actual Opex incurred has further been bifurcated as follows:

- (i) System Use Gas (SUG) Rs.1050.89 crores
- (ii) Other operating and administrative costs Rs.1937.66 crores
- (iii) Tariff not recovered on SUG volumes Rs.235.30 crores

(i) System Use Gas as part of Opex:

EWPL in its tariff submissions has considered an amount of Rs 1050.89 crores as SUG from FY 2009-10 to FY 2016-17. In response to PNGRB's query, EWPL has submitted the year wise quantity and value of SUG, Maintenance gas and Unaccounted Gas validated by authorized signatory.

Rs. in crores

Year	Total as per tariff filing	As Certified by Authorized Company Signatory			
		SUG Consumption	Maintenance	UAG	Total
2009-10	130.07	117.50	5.00	7.40	129.90
2010-11	230.58	223.40	1.10	6.10	230.60
2011-12	208.22	178.50	2.70	27.10	208.30
2012-13	146.78	133.00	2.00	11.80	146.80
2013-14	90.61	95.70	0.40	-5.40	90.70
2014-15	101.33	103.50	0.40	-2.60	101.30
2015-16	84.63	87.10	0.60	-3.10	84.60
2016-17	58.67	59.60	0.20	-1.20	58.60
Totals	1,050.89	998.30	12.40	40.10	1,050.80

(ii) Other operating and administrative costs:

Actual Opex claimed under this head from FY 2009-10 to FY 2016-17 is Rs 1937.66 crores includes following:

- i) Stores and Spares,
- ii) Employee Expenses,
- iii) Electricity, power and fuel,
- iv) Contracted and others services,
- v) Repairs machinery and
- vi) Other operational Expenses.

Year wise operating costs as considered in tariff filing are as follows:

Rs in crores

Year	Operating Cost *
2009-10	281.99
2010-11	263.15
2011-12	282.10
2012-13	286.85
2013-14	258.92
2014-15	227.99
2015-16	205.84
2016-17	130.82
Total	1937.66

*SUG calculation has been depicted separately.

The following costs have been reduced from the operating cost depicted in the Annual reports to arrive at the figures above:

- a) CA certificates have been provided for reduction w.r.t. Lanco Kondapalli dedicated pipelines Opex.
- b) Forex variation
- c) Electricity, Power, Fuel (includes SUG) and Water
- d) Loss on Sale of Fixed Assets
- e) Loss on Sale of Assets held for Disposal

- f) Diminution in Value of Asset under Disposal
- g) Diminution in Value of current investments
- h) Investment Division opex

EWPL's submission on the reducing trend in operating expenditure is as follows: Since there has been downward trend in the gas production from the primary source of gas, the KG D6 block in the KG basin, there has been reduction in operating expenses.

(iii) Tariff not recovered on SUG volumes (including Maintenance gas and Unaccounted Gas)

EWPL under this head has claimed Rs.235.30 cr on account of Tariff not recovered on the SUG volume including maintenance gas and unaccounted gas volume. The volume considered has been multiplied by weighted average heat value (certified by authorized signatory of EWPL) for arriving at the amount considered. Year wise amount claimed in tariff filing are as follows:

(Rs. crores)

Year	Tariff unrecovered on SUG gas
2009-10	32.87
2010-11	58.32
2011-12	49.91
2012-13	31.22
2013-14	17.76
2014-15	18.40
2015-16	13.96
2016-17	12.86
TOTAL	235.30

Year wise total Opex claimed in tariff filing by EWPL are as follows:

Rs. In crores

Year (A)	SUG (B)	Tariff Unrecovered (C)	EWPL Opex excluding SUG (D)	As per Tariff filing B+C+D	Annual report
2009-10	130.07	32.87	281.99	444.93	417.88
2010-11	230.58	58.32	263.15	552.05	483.44
2011-12	208.22	49.91	282.10	540.24	731.10
2012-13	146.78	31.22	286.85	464.85	737.19
2013-14	90.61	17.76	258.92	367.29	906.45
2014-15	101.33	18.40	227.99	347.72	294.65
2015-16	84.63	13.95	205.84	304.42	504.85
2016-17	58.67	12.86	130.82	202.35	164.21
Total	1050.89	235.29	1937.66	3223.85	4239.77

As can be seen from the above table, the Opex as considered in the tariff filing is higher for some of the financial years than that as depicted in the annual reports.

In response to PNGRB's query for variation in the Opex, EWPL in its response has submitted that for the past period, the operating expenses as based on the actuals after due exclusions of certain items as per tariff regulations and includes the tariff not recovered on the SUG volume.

7.3.2 Future Operating Expenses Rs 36862.50 crores.

Year wise actual and projected OPEX as provided in the tariff model show that there is a declining trend in actual OPEX cost figures, however, there is a substantial jump in projected OPEX considered from FY 2017-18 onwards

This has also been bifurcated as follows

(i) System Use Gas (SUG)

EWPL in its updated tariff filing, for projecting the future cost of SUG as Rs.21863.73 crores, has considered SUG volume @ 1.2 MMSCMD from 2017-18

onwards till 2033-34, weighted average calorific value as certified for FY 2016-17 and the price of gas at the rate \$10.10/mmbtu (Gas rate \$ 7.7/MMBTU, customs duty @2.5%, regasification charges of \$1.00/mmbtu leading to \$8.89/mmbtu plus VAT @14.50%) for all the future years.

In response to PNGRB's query for justification of considering the gas rate of \$10.10/mmbtu, EWPL vide its communication dated 12.04.2018 submitted as follows:

1. Natural gas consumed in EWPL as System Use Gas (SUG) for running of compressors, power generation, venting / purging during maintenance activities and unaccounted for gas.
2. Gas is bought from the gas sellers of block KG-D6 at price approved by GOI.
3. Gas production from the currently producing discoveries has been depleting since few years and is expected to deplete out soon.

GOI has introduced pricing and marketing freedom from 2016 for the gas produced from difficult, deep water, ultra-deep water fields. The guidelines provide for pricing based on comparison with alternate fuel costs (fuel oil/coal/naphtha/LNG). EWPL is already connected (directly/indirectly) with RLNG terminals like PLL Dahej, Shell Hazira, GAIL Dabhol. Going forward, there will be connectivity with many more RLNG terminals on both sides of EWPL.

(ii) Projected Other operating and administrative costs

EWPL in its updated tariff filing has submitted future other operating and administrative cost of Rs.10962.49 crores (Rs.7130.68 crores without inflation) from FY 2017-18 to 2033-34 considering inflation at 5.13% from FY 2018-19 onwards.

In response to PNGRB's query for considering such high projected Opex as compared to Actuals (Actual operating and administrative cost for FY 2016-17 as a reference point of comparison is Rs.130.82 crores), EWPL has submitted as follows:

As per tariff regulations, the volume to be considered in tariff computation is to be normative or actual whichever is higher. Majority of Operating expenses in gas pipeline with compressors are in the nature of variable expenses and are linked to the volume cater by the gas pipeline. Accordingly, major difference in Operating expenses from FY 2017-18 onwards are due to the volume considered as divisor for these years for tariff determinations in terms of tariff regulations.

You will appreciate that the denominator considered for tariff computation is normative capacity utilization meaning deemed transportation volumes, therefore it is appropriate to consider the corresponding SUG and other variable operating expenses (Stores & Spares, Maintenance Contracts and Consumables etc.) required for transporting such volumes. Other Operating and Administrative costs for FY 2017-18 has been calculated at Rs 419.45 crores.

Further EWPL's vide its submission dated 12.04.2018 for estimation of Opex for FY 2017-18 submitted as follows:

For comparative analysis, the actual operating costs (excl. SUG and after adjustments) for the year FY 09-10 Rs.282 Crores were escalated using inflation rate of 5.13% (considered in tariff computation) and the estimated Opex (excl SUG) for FY 17-18 comes to Rs. 420 Crores. Further, as a conservative analysis, instead of first year actual opex, average opex (excl. SUG and after adjustments) for the first 3 years (FY 09-10 to FY 11-12 during which actual volume were higher) which was Rs. 276 Crores was considered as opex for FY 09-10, which after applying escalation using inflation factor of 5.13%, comes to Rs.411 Crores.

(iii) Unrecovered tariff on account of future SUG consumption Rs 4036.29 crores

EWPL in its tariff filing has claimed a total amount of Rs.4036.29 crores under this head. EWPL has considered Rs 237.43 crores (based on tariff submitted and volume considered as mentioned in para 7.3.2 (ii) above) for each year from 2017-18 to 2033-34.

Further in this regard, EWPL vide its submission dated 12.04.2018 stated as follows:

Since gas supplies from current sources are quite unsure from a long term perspective, EWPL will have to source gas from other sources.

Since there is marketing freedom, the prices are expected to be market linked. Hence, on a conservative side, SUG price has been considered benchmarked with expected RLNG price (at crude price of 55 \$/bl with a 14% linkage). The same has been derived based on market information, like PLL renegotiated Australia LNG Price is at 13.9% linkage. It may be noted that current crude price has remained above 60 \$/bl and is expected to remain in the range of 60-70 as per market reports.

7.4 Working Capital

EWPL in its tariff submission has submitted total working capital requirement for 18 days of tariff receivables and 30 days of operating costs considering 345 working days, excluding depreciation for the pipeline.

7.5 Line Pack:

Line pack is the value of gas which always remains in the pipeline during its economic life. As per regulations line pack 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. EWPL has considered Line Pack of Rs.78.14 crores as cash inflow in the terminal year i.e. FY 33-34. As per Annual report submitted by EWPL, opening balance of line pack as on 01.04.2009 was Rs. 92.49 Crores. As per annual report an amount of Rs.4.20 crores and Rs.10.15 crores was decapitalized in FY 12-13 and FY 13-14 respectively due to a fall in volumes transported. However, details of line pack for BGL and Lanco Kondapalli dedicated lines has not been provided separately by entity.

7.6 Terminal Value:

EWPL, in its tariff submission, has considered Rs.937 crores as terminal value of the assets (5% of asset value for EWPL pipeline of Rs.18737 crores throughout the economic life of the pipeline) as at the end of the economic life (to be considered as cash inflow at the end of economic life of the pipeline as per the Tariff Regulations) after addition for working capital and line pack.

7.7 Volume Divisor:

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

Financial Year	Capacity (in MMSCMD)*
2009-10	40.7
2010-11	58.6
2011-12	51.1
2012-13	34.5
2013-14	20.6
2014-15	42.0
2015-16	47.3
2016-17	46.5
2017-18 onwards	46.5

*Actual Volumes taken for DCF after adjustment of volume credit till FY 13-14.

This includes actual volume transported, swap volumes as well as ship or pay.

Year wise certified volumes are as below.

Volumes	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17
Contract Carrier Volume	433673	539993	523166	416839	272416	282380	265882	235462
Common Carrier Volume	83923	206443	139037	31738	1628	0	0	0
Total	517596	746436	662203	448577	274044	282380	265882	235462

Quantities have been invoiced on NCV basis till 31st October 2014 and indicated on GCV basis in the above table by using multiplication factor of 1.11.

7.8 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. EWPL in its submissions has submitted actual Gross Calorific Value duly certified by authorized signatory from FY 2009-10 to FY 2016-17 which are as follows:

Year	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17
GCV (Btu / Scm)	35825	36316	36639	36771	37092	37493	37608	37825

7.9 Number of Working Days

EWPL has considered 345 working days throughout the economic life of the pipeline considering 20 days plant shutdown.

7.10 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 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 EWPL and subsequent computation of pre-tax rate of return (as submitted by EWPL) are as follows:

Financial Year	2009-10	2010-11	2011-12 & 2012-13	2013-14 & 2014-15	2015-16 onwards
Income Tax Rate	33.99%	33.22%	32.45%	33.99%	34.61%
Pre-tax rate of return	18.18%	17.97%	17.76%	18.18%	18.35%

7.11 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 EWNGPL is 1460 Kms. Hence Zonal apportionment would have to be carried out.

8 Views of stakeholders sought

Determination of the final initial unit natural gas pipeline tariff is a time bound exercise. PNGRB solicits the views in writing of stakeholders on EWPLs tariff filing for the EWNGPL 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