



Petroleum and Natural Gas Regulatory Board

New Delhi

Tariff Order

Subject	: Determination of provisional unit natural gas pipeline tariff (“Provisional Tariff”), under the provisions of the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008 (“NGPL Tariff Regulations”) for North-East Natural Gas Pipeline Grid (“NEGG”) of Indradhanush Gas Grid Limited (“IGGL”).
Entity	: Indradhanush Gas Grid Limited (“IGGL” or “Entity”)
File No.	: PNGRB/COM/10-NGPL Tariff (9)/2022-Vol.I (E-4124)

Ref. No.: TO/NGPL/25-26/02

Date: 16th April, 2025

1 Regulatory Framework

- 1.1 In terms of Section 22 of the Petroleum and Natural Gas Regulatory Board Act, 2006 ("PNGRB Act"), 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 (“NGPL”).
- 1.2 The methodology for determination of NGPL tariff has been specified in the relevant provisions of the PNGRB (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 NGPL tariff on a provisional basis ("provisional tariff") first 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 of the NGPL is to be done by Board in terms of Clause 2(1) (h) of Tariff Regulations, which inter-alia provides that first tariff review to be done after the end of five consecutive years after the end of the initial unit natural gas pipeline tariff period and the unit natural gas pipeline tariff so determined at the time of any tariff review shall apply for the period upto next tariff review and further the gap between two tariff reviews shall not be less than two consecutive financial years after the end of the financial year in which last tariff fixation occurred. Further, the Board may, either on its own or on the entity’s request, carry out a review of the unit natural gas pipeline tariff any time between two tariff reviews, as the case may be, considering- (i) applicable nominal rate of income tax used for grossing-up the rate of return on capital employed; (ii) sudden change in any parameter used in the determination of the unit natural gas pipeline tariff. The transportation tariff is determined

using the Discounted Cash Flow (DCF) method using 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 Authorisation

PNGRB granted the final authorization to NEGG vide letter no. PNGRB/Auth/2-NGPL (04)/2018/(P-111) dated 17.11.2020 under Section 16 and in pursuance of Policy Directives issued to PNGRB by the Ministry of Petroleum & Natural Gas under Section 42 of the PNGRB Act 2006. The provisional capacity and length as per the Final Authorization Letter is 4.75 MMSCMD (including common carrier capacity of 1.19 MMSCMD) and 1656 Km respectively. As per the final authorisation, the entity shall complete laying, building or expansion activities of the natural gas pipeline project within a maximum period of thirty-six months from the date of issue of this final authorisation letter.

3 Details of Pipeline Phases for NEGG as per DFR

3.1 Phase wise implementation Schedule as per DFR is as follows:

Phase	Section	Length (Km)	Start	End	Duration (Months)
I	i. Guwahati-Numaligarh ii. Branch line to Itanagar iii. Spur line to Numaligarh	421	Oct-18	Sep-22	47
	i. Numaligarh/Dergaon (Jorhat) to Dimapur ii. Feeder lines from ONGC fields	147			
	Total Phase-I	568			
II	i. Guwahati- Shillong- Silchar Panisagar ii. Banaskandi feeder line	386	Oct-18	Sep-22	47
	i. Panisagar to Agartala ii. Feeder lines (2 No.) iii. Spur line to NEEPCO	231			
	Panisagar- Aizawl branch line	111			
	Total Phase-II	728			
III	Dimapur- Kohima	80	Oct-18	Oct-22	48
	Kohima- Imphal	150	Oct-18	Nov-23	61
	Siliguri- Gangtok	130	Oct-18	Nov-23	61
	Total Phase-III	360			
	Grand Total	1656			

3.2 PNGRB vide letter no. PNGRB/Monitoring/2/NGPL-NEPL/(1)/2019 dated 17.10.2023, granted approval for extension of completion schedule upto March 2025.

4 Inclusion of NEGG Pipeline in determination of Unified Tariff:

IGGL vide letter no. IGGL/MKTG/Unified Tariff/181 dated 23.12.2022 and IGGL/Mktg/UNIFIED TARIFF/FY23-24/300 dated 10.01.2024 informed that NEGG project is likely to be commissioned by March 2024. They requested that NEGG pipeline be included in the list of natural gas pipelines which are part of the National Gas Grid system for calculation of Unified Tariff in Schedule C of Tariff Regulations. Further, IGGL vide letter dated 10.01.2024 informed that IGGL has already signed a hook up agreement with GAIL on 28.07.2023 formalising the connection between NEGG and BGPL forming an integral part of National Gas Grid.

5 Details of earlier and current tariff filing by IGGL and tentative date of commissioning:

- 5.1 IGGL vide letter IGGL/GHY/CEO/2022/178 dated 29.09.2022 informed that 185 km (121 km from Baihata to SV 05 and 64 km from SV-14 to NRL RT) is likely to be commissioned by December 2022 whereas the entire Guwahati-Numaligarh Pipeline is scheduled for commissioning by September 2023 and Gohpur-Itanagar Pipeline is scheduled for commissioning by December 2023. IGGL submitted the financial costs and other data with request to accept the same for determination of tariff of the North East Gas Grid (NEGG).

Subsequently, vide letter IGGL/GHY/MKTG/2023/205 dated 21.03.2023, IGGL inter alia submitted that due to some hindrances/ issue, the commissioning is delayed and now the complete Phase-I for 541 Kms [comprising of a) Guwahati-Numaligarh (24” X 386 Km), b) branch line Gohpur-Itanagar (8”x 27 Km), and c) Dergaon (Jorhat) to Dimapur (12” X 128 Km)] shall be commissioned by 01.04.2024.

Later, IGGL vide email dated 13.01.2024 submitted the updated Tariff Model of NEGG Phase-I. Based on queries raised by PNGRB and replies submitted by IGGL, a meeting with officials from IGGL was held on 02.02.2024 at PNGRB office wherein certain issues relating to IDC, compressor power consumption, Transmission loss, etc were discussed. Based on the discussions during the meeting held on 02.02.2024, IGGL submitted the revised tariff model on 06.02.2024.

- 5.2 IGGL, vide communication dated 06.02.2024 submitted tariff filing with provisional tariff of Rs. 160.93/ MMBTU on GCV basis from 01.04.2024 to 31.03.2054 for Phase-I of NEGG. In response to PNGRB query, IGGL vide response dated 30.04.2024 informed that the expected date of progressive commissioning for Phase-I is by end of June 2024. However, owing to pending work completion, the Phase-I was not commissioned by end of June 2024.
- 5.3 Meanwhile, PNGRB had kept taking the updates from IGGL regarding the status of commissioning of its pipeline. PNGRB vide e-mail dated 22.10.2024 had asked IGGL to inform about the likely date of commissioning of Phase-I. IGGL vide their response e-mail dated 23.10.2024 submitted the following timelines:

Section	Particulars	Likely date of commissioning
Section-1	Guwahati -Numaligarh	December 2024

Section-2	Gohpur – Itanagar	July 2025
Section-8	Dergaon – Dimapur	June 2025

IGGL informed that the billing can start after commissioning of Section-1 of Phase-I. Further, PNGRB vide e-mail dated 25.10.2024 asked IGGL to submit the updated tariff filing for NEGG Phase-I. IGGL vide their e-mail dated 15.11.2024 submitted its **updated tariff filing** with provisional tariff of Rs. 163.18/ MMBTU on GCV basis from 01.01.2025 till the end of economic life of pipeline i.e. 31.12.2054.

- 5.4 PNGRB vide emails dated 23rd December 2024 and 02nd January, 2025 asked IGGL to update about the status of commissioning of Phase-I. IGGL vide email dated 08th January, 2025 informed that the Guwahati-Numaligarh pipeline i.e. Section 01 under NEGG Phase-I is expected to be commissioned by end of January 2025 and no change in tentative date of commissioning of Section 2 and section 8. However, the billing to customers shall commence from March 2025 subjected to readiness of NEGDCL.

6 Public consultation exercise for tariff review:

- 6.1 PNGRB had webhosted the Public Consultation Document (“PCD”) on 23.02.2024 based on the tariff filed by IGGL on 06.02.2024.
- 6.2 In response to PCD, GSPL had submitted their comments.
- 6.3 IGGL had submitted response on the stakeholder’s comments vide letter dated 22.03.2024.
- 6.4 Further, to discuss the comments of the stakeholders and IGGL’s response, PNGRB had conducted an open house on 28.03.2024.

7 Important aspects of the verification of tariff filings by IGGL

The salient features of the tariff filing are as follows:

Sr. No.	Particulars	Details of Tariff filing dated 06.02.2024	Details of Updated Tariff filing dated 15.11.2024
1.	Economic life (Years)	30 Years	30 Years
	From	01-Apr-24	01-Jan-25
	To	31-Mar-54	31-Dec-54
2.	Levelized tariff (Rs. MMBTU/GCV)	160.93	163.18
3.	Effective date of tariff implementation	01.04.2024	01.01.2025
4.	Number of working days in a year	350	350
5.	Annual inflation rate	4.50%	4.50%
6.	Total Capex (Net of Viability Gap Funding) (Rs. /crore)	2,091.69	2,135.79
	a) Pre commissioning Capex	1,455.09	1,466.64
	b) Projected Post commissioning Capex from FY 2024-25 till the end of economic life.	636.60	669.15
7.	Total Opex (Rs. /crore)	7,425.64	7,293.81
	a) Pre commissioning Opex	0	0

Sr. No.	Particulars	Details of Tariff filing dated 06.02.2024	Details of Updated Tariff filing dated 15.11.2024
	b) Projected Post commissioning Opex from FY 2024-25 till end of economic life	7,425.64	7,293.81
8.	Transmission loss during economic life (Rs. /crore)	195.66	171.76
9.	Line Pack (Rs. /crore)	15.14	15.14
10.	Average working capital during the economic life (Rs. /crore)	49.88	48.00
11.	Terminal Value consisting of residual value of NFA of Rs. 836.95 crore, line pack of Rs. 15.14 crore and working capital of Rs. 68.47 crore at the end of the economic life (Rs. /crore)	920.56	833.42
	Levelized Tariff: (Rs. MMBTU/GCV)		
	From 01.04.2024 & 01.01.2025 onwards	160.93	163.18

7.1 **Economic Life of Pipeline**

- 7.1.1 The entity in its earlier tariff filing has considered economic life of NEGG as 30 years starting from 01.04.2024 to 31.03.2054 and considered pre-commissioning period of 4 years i.e. from FY 2020-21 to FY 2023-24.
- 7.1.2 Further, in its current tariff filing, entity has considered economic life of NEGG as 30 years starting from 01.01.2025 to 31.12.2054 and considered pre-commissioning period of 4 years i.e. from FY 2020-21 to FY 2023-24.
- 7.1.3 Regulatory Provision:

Regulation 2 (1)(e) of NGPL Authorisation Regulations: “economic life” of natural gas pipeline shall be a period of twenty-five years commencing from –

- i. the date of grant of authorization to the entity by the Board in case an entity proposes to lay, build or expand a natural gas pipeline on or after the appointed day;
- ii. the start-up date of the commencement of physical activities of laying, building or expanding the natural gas pipeline in case an entity started up laying, building or expanding a natural gas pipeline before the appointed day and the entity has either an authorization from the Central Government before the appointed day or an authorization from the Board under these regulations: Provided that at the end of the aforesaid period of twenty-five years extension of the period of economic life may be considered by the Board for a block of ten years at a time depending on the satisfactory compliance of the service obligations under these regulations and on such terms and conditions, as it may deem fit at that point in time.

Clause 7 of Schedule A of NGPL Tariff Regulations: Notwithstanding anything contained in any regulations made under the Act, economic life of the pipeline shall be considered as thirty years from the date of commissioning for the purpose of tariff determination under these regulations. In case, the natural gas pipeline has been authorized for more than thirty years or its authorisation has been subsequently extended beyond thirty years or is in operation beyond

thirty years, the DCF model for the tariff computation may be made for the entire period of authorization or operation till the next tariff review, including the extended period.

7.1.4 **PNGRB's Conclusion:** In view of the above recent submission from IGGL, the provisional economic life of NEGG has been considered as 30 years from 01.04.2025 to 31.03.2055 for the purpose of determination of Provisional Initial Unit Tariff. However, the same shall be tried up while determining Final Initial Unit Tariff based on the actual date of commissioning. The pre-commissioning period is also restricted to three years as per past practice i.e. from FY 2022-23 to FY 2024-25. The cash outflows of FY 2020-21 & FY 2021-22 are considered as outflows in FY 2022-23.

7.2 **Capital Expenditure (Capex)**

7.2.1 The DFR projects a Capex of Rs. 9,265 crore for the entire project of North East Gas Grid. Entity in its updated tariff filing dated 15.11.2024 has claimed the total Capex as Rs. 2,135.79 crore (excluding IDC) from FY 2020-21 till end of economic life in FY 2054-55.

Sr. No.	Particulars	Amount (Rs / crore) Tariff filing dated 06.02.2024	Amount (Rs / crore) Tariff filing dated 15.11.2024
1	Pre-commissioning Capex excluding IDC	3,637.71	3,666.60
2	Less: Viability Gap Funding @ 60%	(-) 2,182.62	(-)2,199.96
	Net Pre-commissioning Capex outflow (A)	1,455.09	1,466.64
3	Projected Capex post commissioning excluding IDC (Claimed from FY 2029-30 @ 0.5% / 1% on Capex excluding IDC)	636.60 (Claimed as % of Capex till 31.03.2024 Rs. 3,637.71 crore @ 0.5% p.a. for 15 years upto 31.03.2043 and @1% p.a. for 10 years upto 31.03.2054)	669.15 (Claimed as % of Capex till 31.12.2024 Rs. 3,666.60 crore @ 0.5% p.a. for 15 years upto 31.03.2044 and @1% p.a. upto 31.12.2054)
	Less: Viability Gap Funding	0.00	0.00
	Post commissioning Capex outflow (B)*	636.60	669.15
	Total Capex outflow claimed by entity net of viability gap funding (A) + (B)	2,091.69	2,135.79

7.2.2 Entity submitted that NEGG Capex for 1,661 km of pipeline is Rs. 9,265 crore (till commissioning). Based on pro-rata Km-inch of the pipeline network, total Capex for Phase-I in Tariff submission is given below:

Particulars	Unit	Details
Pipeline Length (Section 1, 2 & 8)	Km	541

NEGG Pipeline Network	Km	1,661
Pipeline Length (Section 1, 2 & 8)	Inch Km	11,016
NEGG Pipeline Network	Inch Km	26,248
Approved Project Cost	Rs. /crore	9,265
Capex as per DFR (Section 1,2 & 8)	Rs. /crore	3,888

7.2.3 **Viability Gap Funding:** Viability Gap funding to the tune of 60% of Capex for Phase-I till commissioning i.e. 60% of Rs. 3,666.60 crore i.e. Rs. 2,199.96 crore (excluding IDC) is received/ to be received from MoP&NG.

7.2.4 **Actual & Projected Capex:** Actual Capex (CWIP) has been submitted upto March 2024 and projection thereafter:

Rs in crore	
Period	Amount as per tariff filing
Upto FY 2020-21	311.85
For FY 2021-22	1,133.08
For FY 2022-23	727.06
For FY 2023-24	595.13
Projected till commissioning	899.48
TOTAL	3,666.60

7.2.5 **Future Capex:** Entity has also claimed Rs. 669.15 crore (from FY 2029-30 till end of economic life towards operational Capex. It is calculated as a % of pre-commissioning Capex Rs. 3,666.60 crore @ 0.5% p.a. from FY 2029-30 upto FY 2043-44 and @ 1% p.a. thereafter till end of economic life.

7.2.6 **Stakeholders comment and entity response based on PCD:**

i. **GSPL's Query:** It is mentioned that the actual data up to FY 2022-23 has been taken for tariff computation and projections have been taken from FY 2023-24 onwards.

Query a. However, it seems actual data (including in Capex) is up to March 2024. Kindly advise which data is projections and which data is considered at actuals.

IGGL Reply: The actual data as per books has been taken for the period upto December 2023, however, audited figures have been considered for the period upto FY 2022-23. Further data from January 2024 onwards are based on the projections.

PNGRB's comment: In the updated tariff filing, actual capex has been considered till March 2024 and projections are considered till commissioning.

ii. **GSPL's Query:** It is mentioned that 5 feeder lines (170 kms) from ONGC shall be considered in Phase II Tariff Model. Kindly clarify the concept/category of Feeder Lines and its treatment under extant regulations.

IGGL's Reply: Feeder lines are the source lines from the ONGC.

iii. **GSPL's Query:** It is mentioned that there has been a reduction in the diameter of Gohpur Itanagar from authorized 12" to 8". The same was intimated to PNGRB on 24.01.2024. PNGRB may kindly advise if this change in diameter has been approved/authorized by PNGRB and if not yet authorized, whether the CAPEX of this pipeline section will be considered in the tariff determination or not.

IGGL Reply: The authorized 12" x 20 Km Gohpur Itanagar pipeline was optimized to 8" X 27 Km based on gas demand and feasibility of construction in hilly terrains of the state of Arunachal Pradesh. IGGL has requested PNGRB for regularization of the same and the estimated CAPEX for the 8" Dia pipeline has been considered in the total CAPEX of Phase-I. Further, PNGRB may like to respond.

- iv. **GSPL's Query:** It is mentioned that Contingency expenses are re-appropriated to Owner's Management expenses (OME). Since the entire CAPEX incurred for Phase I is available with the entity in view of the pipeline likely being commissioned in this month (March 2024), there will not be any contingency expenses as actual expenses have been captured. Accordingly, if any contingency expenses have been transferred to other heads details of the same may be provided.

IGGL Reply: The reappropriation of contingency expense depends upon the requirements of other heads as and when required. Actual utilization of contingency provisions shall be intimated to PNGRB after the closure of the project.

- v. **GSPL's Query:** Page 7 of the Final Authorisation letter mentions the length of various sections of the NEGG and Compressor is not mentioned in the list of authorised pipeline sections. Kindly clarify if the CAPEX of the Compressor would be considered in tariff determination. Whether amendment to the authorization would be required may please be confirmed.

IGGL Reply: The Compressor station is an integral part of the GNPL section under Phase-I. Hence Compressor capex has been considered in line with the Determination of the Natural Gas Pipeline Tariff) Regulations, 2008 under Schedule A of the Attachment 1 (b). The operational plan along with the pipeline route is already authorized by PNGRB which includes the installation of a compressor at DT-I (Ref Annexure-I of the PNGRB final authorisation letter).

- vi. **GSPL's Query:** As per the PCD document, the Capex and OPEX pertaining to the Compressor has been claimed.

Query a. Kindly clarify the impact of Compressor on the capacity.

IGGL Reply: The Compressor is an integral requirement of NEGG at the Guwahati Despatch Terminal for supplying the natural gas to one of the customers at a minimum required pressure of 35 kg/cm² as per the Detailed Feasibility Report of the NEGG. The capacity of Phase-I with compressor as per DFR has been considered.

Query b. Further the requirement of compressor, if any, for Phase II & Phase III of the pipeline may also be clarified.

IGGL Reply: Presently compressor is not envisaged for the Phase-II and Phase-III.

Query c. The details of the compressor station in terms of capacity, throughput, capex, etc may please be provided for Phase I.

IGGL Reply: The details of the compressor station are as given below:

Capacity: 3.75MMSCMD

Throughput: 3.75MMSCMD

CAPEX: Rs 400.11 Cr.

Query d. It is implied from the response of the entity that all the 3 compressors will be running on a regular basis, means there is no back up. Further clarification in this regard may please be provided.

IGGL Reply: - This is to clarify that there are 4 compressors (3 no 's working and I no. Stand By) installed at the compressor station of the GNPL section of Phase-I.

7.2.7 Clarification sought and response received by PNGRB:

- i. **Clarification sought by PNGRB dated 23.01.2024:** The Project Capex of Rs. 9,265 crore has been allocated basis the proportionate inch km of pipeline. The inch used is as follows:

Section Name	Inch used in tariff model	Inch as per authorisation
Guwahati- Numaligarh	24	24
Gohpur Itanagar	8	12
Dergaon-Dimapur	12	12

Kindly explain the variation in authorized dia of pipeline for Gohpur Itanagar section submitted in tariff model from the authorized dia.

IGGL’s Response dated 25.01.2024: In the original DFR and in the PNGRB authorization letter, the diameter for Gohpur- Itanagar line was 12 inches. However, in the 16th Board meeting of IGGL held on 10.07.2020, it was recommended to change the diameter from 12 inches to 8 inches of the said line because of terrain conditions and volume demand. The same has been intimated to PNGRB vide letter dated 24.01.2024.

- ii. **Clarification sought by PNGRB dated 23.01.2024:** In the tariff model, Rs. 3663 Crore (including IDC) has been taken as Capex whereas the assumptions show that Capex pertaining to Phase-I is Rs. 3888 crore (including IDC). Kindly reconcile the two amounts and also give the basis and detailed working for taking Rs. 3663 crore as Capex. Documents in support of Rs. 3663 crore to be given.

IGGL’s Response dated 25.01.2024: Capex of Rs. 3663 crore has been considered in the tariff model after detailed work out of DFR components, however Rs. 3,888 crore was worked out as a ballpark figure based on pro rata volume for maximum capping. However, actual Capex shall be intimated to PNGRB after commissioning of Phase-1 and capitalization of the same.

- iii. **Clarification sought by PNGRB dated 23.01.2024:** For Phase-I, IGGL has submitted a length of 541 km in current submission dated 10.01.2024 whereas the length as per DFR was 568 km. Also, the DFR shows length 550 km in Phase I. Kindy provide explanation for difference in the three lengths.

IGGL’s Response dated 25.01.2024: As per DFR the length of phase-I section is 568(=550+18) including 18 km ONGC feeder line. However, in model is being prepared considering 541 Km (Guwahati Numaligarh Pipeline 386 Kms (section:1) + Gohpur Itanagar 27 Kms (section:2) + Dergaon Dimapur section 128 Kms (section:8).

- iv. **Clarification sought by PNGRB dated 23.01.2024:** The pipeline length of the network has been taken as 1661 km in assumptions whereas the authorized length as well as length as per

DFR of the network is 1656 km. The lengths mentioned in point 1 and 2 are used for allocation of projected capex, hence explanation may be given.

IGGL's Response dated 25.01.2024: The actual length has been increased by 5 km as compared to original DFR due to re-routing of the line as per the site conditions.

- v. **Clarification sought by PNGRB dated 25.01.2024:** The owner management expenses @ 3.5% have been taken in tariff model. The basis for taking the same may be provided.

IGGL's Response dated 29.01.2024: Owner management expenses taken on pro rata basis in line with DFR provisions.

- vi. **Clarification sought by PNGRB during meeting held on 02.02.2024:** Provision for contingencies to the tune of 5% was kept in the cost estimates to take care of the unforeseen aspects of the estimate. Since the actual costs have been captured, there does not seem to be convincing reasons to still claim contingencies to the tune of 5% especially when 30% mark up on services for socio-economic factor has been done.

IGGL's Response dated 07.02.2024: Contingency provisions are kept in DFR to take care of unforeseen future deviations with respect to prices and quantities. In the case of IGGL, Contingencies @ 5% are considered in the Tariff Model as per DFR. Moreover, contingencies provisions have also been re-appropriated to Owners Management Expenses (OME) during the execution of the project as and when required. Actual utilization of contingency provisions shall be intimated to PNGRB after the closure of the project.

- vii. **Clarification sought by PNGRB during meeting held on 02.02.2024-**What is the tentative schedule for rest of the phases of pipeline and its length?

IGGL Response dated 07.02.2024: The Phase-II sections having a total length of 726 Km is expected to be commissioned by March 2025. The Phase-III sections having a total length of 395 Km are linked with the NH widening of NH-02 & NH-717A and are expected to be completed by March 2025 subject to the availability of NH Right of Way.

- viii. **Clarification sought by PNGRB during meeting held on 02.02.2024-** Details of sectors and length of 1st phase of the pipeline as per DFR vis-à-vis actual lengths and sectors. If 5 feeder lines from ONGC are also part of Phase 1 and being commissioned.

IGGL Response dated 07.02.2024:

Section No	Section Name	Length as per DFR (Km)	Actual Length (Km)	Expected Date of Commissioning	Remarks
1	Guwahati-Numaligarh	386	392	March 2024	<ul style="list-style-type: none"> The actual length was changed due to re-routing as per site conditions. ONGC Feeder Lines shall be considered in Phase II Tariff Model
2	Gohpur-Itanagar	20	27		
8	Dergaon-Dimapur	128	123		
--	ONGC Feeder Line	16	16	June 2024	

Only sections-1,2 & 8 which are being commissioned by March 2024 are considered in the Tariff model. ONGC Feeder Lines shall be considered in the Phase II Tariff Model.

Note: The lengths of the pipelines in Tariff model have been considered as per the DFR. However, after commissioning, actual lengths shall be intimated to PNGRB.

ix. **Clarification sought by PNGRB during meeting held on 02.02.2024:** IDC is not to be taken as part of Capex, but IGGL has considered IDC (Rs. 25.51 crore) as part of Capex.
IGGL's Response dated 07.02.2024: IDC is not considered in project IRR, but IGGL has considered IDC in Capex as VGF is also allowed on IDC. However, as advised, IDC is excluded from Capex and the revised model is submitted.

x. **Clarification sought by PNGRB dated 26.04.2024:** The Certified copies of Trail Balances of FY 20-21 to FY 23-24 separately showing line wise capex for Phase-I of NEGG with reference to the capex submitted in the Tariff model.
IGGL Reply dated 30.04.2024: IGGL doesn't maintain phase wise trial balance and CAPEX for phase I has been submitted on the basis of actual up to December 2023 and estimated as per DFR for Q4, FY 2023-24. It is further informed that the CAPEX incurred up to 31st March 2024 is not in a final stage. CAPEX figure shall be finalized after the close out of Phase-I project and final settlement of all orders.

xi. **Clarification sought by PNGRB dated 26.04.2024-** As per your reply dated 25.01.2024, it is provided that the details of change in diameter of Gohpur-Itanagar (section-2 of Phase-I) have been intimated to PNGRB, kindly reshare the application along with the approval of IGGL's Board for the same.
IGGL Reply dated 30.04.2024: Entity provided copies of application dated 25.01.2024, copy of IGGL's Board resolution dated 21.07.2020 for optimisation of lengths and diameter, copy of Letter to PNGRB for the amendment of Length, Diameter dated 04.03.2024 and Minutes of meeting between IGGL & PNGRB on 08.04.2024 regarding change in pipeline length and size of few sections of NEGG.

xii. **Clarification sought by PNGRB dated 26.04.2024-**Page195 of DFR provides as under

Attributes	Phase -1	Phase-II	Phase-III
Length (Kms)	568	728	360
No. of sections	02	03	03

It can be observed that Phase-I consists of two sections as per DFR, however, as per your reply dated 25.01.2024 it is provided that three sections (section 1, 2 and 8) are considered in Phase-I. It is requested to clarify with details the reasons for differences in information (w.r.t length, section, diameter) provided in DFR vis-a-vis Tariff filing for Phase-I.

IGGL Reply dated 30.04.2024- Earlier in DFR although sec 1,2, and 8 were clubbed together in two sections. However, in view of the GST compliance, we had to make it separate sections based on the different states. In view of the above sec 1, 2 were split considering them in different states i.e. Assam & Arunachal Pradesh which is reflected in DFR Pg. No 168.

xiii. **Clarification sought by PNGRB dated 03.05.2024** -in response to PNGRB's query, it is provided that the CAPEX for Gohpur Itanagar Sec - 02 (phase -1) is worked out to Rs.76.24

crore based on the DFR estimation considering 8" x 27km. In this regard it is required to clarify whether the cost of Rs. 76.24 crore is for 8" x 27 Km or 12" x 20 Km?

It is requested to provide :-

- i) the actual cost for 8" x 27 kms for Gohpur Itanagar Sec - 02 (phase-I)
- ii) the cost estimate for 12" x 20 Kms as per DFR

IGGL Reply dated 06.05.2024- - Rs. 76.24 crore CAPEX of Gohpur Itanagar is for 8" x 27 Km pipeline which is based on inch — km of DFR cost.

- i) Actual Cost for 8" x 27 km for Gohpur Itanagar Sec - 02 (phase-I) is not available as the project is not yet completed.
- ii) The cost estimate for 12" x 20 Kms as per original DFR is Rs. 81.69 crore on inch km basis.

7.2.8 PNGRB's Conclusion:

Actual and estimated Capex as claimed by entity is considered in current tariff determination. However, the same shall be trued up based on the extant regulatory framework in the next tariff determination exercise.

Regarding the issue of considering the capex pertaining to Gohpur-Itanagar (section-2 of Phase-I) due to variation in authorized diameter of pipeline as per DFR, based on the reply in response to PNGRB's query, IGGL submitted that actual cost is not available as pipeline is not yet commissioned and the cost estimate on inch km basis for 12" x 20 Kms as per original DFR (Rs.81.69 crore) is greater than the cost estimate for 8" x 27 Km pipeline (Rs.76.24 crore). Hence, the cost as considered by the entity, being lower than the cost of 12", is considered on provisional basis. Also, the same shall be trued up based on the review of actual cost available post commissioning in view of pending authorization/ regularization for the same under the PNGRB Authorization Regulations.

Further, in case during authorization / updation of Schedule – H of the pipelines/sections/spur lines, etc. by PNGRB, any deviation with respect to extant regulations is observed then the impact of the same shall be dealt in next tariff review(s). The consideration of the same in the current tariff shall not in any way be considered by the entity as authorization of the said spur-lines.

For the future Capex of Rs. 669.15 crore claimed by entity is on estimated basis as a percentage of pre-commissioning Capex Rs. 3,666.60 crore, @ 0.5% p.a. from FY 2029-30 upto FY 2043-44 and @ 1% p.a. thereafter till end of economic life, which is without any detailing and supporting documents. Hence the same is not considered for current tariff determination. However, the same shall be considered based on the actuals in terms of the extant regulatory framework during the next tariff review.

(Rs. in crore)

Period	Claimed By Entity	Less: Disallowances	Considered By PNGRB
2020-21	131.84	-	-
2021-22	283.08	-	-
2022-23	98.52	-	513.44*
2023-24	53.69	-	53.70
2024-25	899.48	-	899.48
2025-26 to 2028-29	-	-	-
2029-30 to 2043-44	274.99**	274.99	-

Period	Claimed By Entity	Less: Disallowances	Considered By PNGRB
2044-45 to 2054-55	394.16**	394.16	-
Total	2,135.79	669.15	1,466.64

*Pre-commissioning period of 3 years is considered by PNGRB. Outflow of pre-commissioning capex of FY 2020-21 and FY 2021-22 is considered in FY 2022-23.

** Post-commissioning capex claimed at 0.50% p.a. of Total Capex i.e. Rs. 18.33 crore per annum from FY 2029-30 up-to FY 2043-44 and at 1% p.a. of Total Capex i.e. Rs. 36.67 crore per annum from FY 2044-45 till end of economic life.

7.3 **Operating Expenses (“Opex”)**

- 7.3.1 Entity has claimed Opex of Rs. 7,293.81 crore from FY 2024-25 till end of economic life (excluding Transmission loss). It comprises compressor related Opex Rs. 1,873.73 crore and other operational Opex Rs. 5,420.08 crore. Based on the queries raised by PNGRB, entity provided that the Phase wise utilization of compressor based on the flow rate in the pipeline power consumption has been re-casted and provided as under and accordingly the tariff model has been revised:

Sr. No.	Year	Flow (MMSCMD)	Variable Cost			Fixed Cost (Rs./crore)	Total Opex for Compressor station (Rs.in crore)
			Annual Energy Consumption (Million Units)	Rate per unit (Rs.)	Amount (Rs./crore)		
1	Mar-25	0.11	0.85	10.00	0.05	2.94	2.99
2	Mar-26	0.21	1.59	10.45	1.66	12.29	13.95
3	Mar-27	0.21	1.59	10.92	1.74	12.84	14.58
4	Mar-28	2.42	18.62	11.41	21.24	13.42	34.66
5	Mar-29	2.42	18.62	11.92	22.19	14.02	36.22
6	Mar-30	2.42	18.63	12.46	23.21	14.65	37.86
7	Mar-31	2.42	18.63	13.02	24.25	15.31	39.56
8	Mar-32	2.42	18.63	13.61	25.35	16.00	41.35
9	Mar-33	2.42	18.63	14.22	26.49	16.72	43.21
10	Mar-34	2.42	18.63	14.86	27.68	17.48	45.15
11	Mar-35	2.42	18.63	15.53	28.94	18.26	47.20
12	Mar-36	2.42	18.63	16.23	30.24	19.08	49.33
13	Mar-37	2.42	18.63	16.96	31.60	19.94	51.55
14	Mar-38	2.42	18.63	17.72	33.02	20.84	53.86
15	Mar-39	2.42	18.63	18.52	34.51	21.78	56.29
16	Mar-40	2.42	18.64	19.35	36.07	22.76	58.83
17	Mar-41	2.42	18.64	20.22	37.69	23.78	61.48
18	Mar-42	2.42	18.64	21.13	39.39	24.85	64.24
19	Mar-43	2.42	18.64	22.08	41.16	25.97	67.13
20	Mar-44	2.42	18.64	23.07	43.01	27.14	70.15
21	Mar-45	2.42	18.65	24.11	44.97	28.36	73.33
22	Mar-46	2.42	18.65	25.19	46.98	29.64	76.62
23	Mar-47	2.42	18.65	26.32	49.09	30.97	80.06

Sr. No.	Year	Flow (MMSCMD)	Variable Cost			Fixed Cost (Rs./crore)	Total Opex for Compressor station (Rs.in crore)
			Annual Energy Consumption (Million Units)	Rate per unit (Rs.)	Amount (Rs./crore)		
24	Mar-48	2.42	18.65	27.50	51.29	32.36	83.65
25	Mar-49	2.42	18.65	28.74	53.60	33.82	87.42
26	Mar-50	2.43	18.66	30.03	56.04	35.34	91.38
27	Mar-51	2.43	18.66	31.38	58.56	36.93	95.49
28	Mar-52	2.43	18.66	32.79	61.19	38.59	99.78
29	Mar-53	2.43	18.66	34.27	63.95	40.33	104.28
30	Mar-54	2.43	18.66	35.81	66.82	42.15	108.97
31	Mar-55	2.43	14.00	35.81	50.12	33.03	83.15
TOTAL					1,132.10	741.63	1,873.73

7.3.2 **Compressor related Expense:** The expenses of Rs. 1,873.73 crore on account of running of compressor have been claimed as variable costs i.e. electricity expenses for compressor station and other fixed costs for compressor station.

For calculating annual energy consumption (as per the calculations done by PMC), the cost of commercial electrical power including fixed charges is equivalent to Rs.10 per unit escalated @4.5% p.a. The Opex inflation of 4.5% p.a. is considered in fixed cost as per earlier PNGRB Tariff Orders.

The break-up of Fixed costs provided as provided by IGGL is as follow-

Sl.no	Particulars	Amount (Rs.)
1.	Manpower 20% of total NEGG manpower will be engaged in Compressor Station)	5,75,80,000
2.	Repair & Maintenance (Compressor, 3% of Asset value)	4,80,12,000
3.	Insurance 0.25%	40,01,000
4.	Overheads/ General Administration 0.5% of Capex	80,02,000
	Total	11,75,95,000

7.3.3 **Other operational Opex:** Entity has claimed other Opex of Rs.5,420.08 crore from commissioning till end of economic life. For FY 2024-25, Opex is claimed @ 2.5% p.a. of pre-commissioning Capex other than compressor Capex of Rs.3,266.74 crore (Total Capex Rs.3,666.60 crore less compressor Capex Rs.399.86 crore). The Opex for years after 2024-25 has been escalated @ 4.5% p.a.

7.3.4 **Stakeholders comment and entity response based on PCD:**

- i. **GSPL Query:** The entity has claimed 8.17% of CAPEX towards OPEX of the Compressor (variable & fixed cost) revised downwards to 4.65% of CAPEX of Compressor.

Query a.- It is suggested that the OPEX be fixed at 2.5% of the CAPEX for all the components.
IGGL Reply: - A Standard rate of 2.5% of pipeline CAPEX has been considered as OPEX without the compressor. However, OPEX at a higher rate of 4.65% is considered with the Compressor due to equipment-specific operational expenses including the annual amortized value of the compressor.

PNGRB's response: - The opex pertaining to electricity expenses (variable expenses) for compressor station has been considered @ Rs.10/- per unit of annual energy consumption without escalation based on the estimated volume flow. The escalation has not been considered in line with non-consideration of the same with respect to gas price for purpose of calculation of System used Gas and Transmission loss.

As per past practice, PNGRB has been considering Future opex @ 2.5% of pipeline capex. Therefore, in order to maintain consistency, PNGRB has considered future Opex @ 2.5% of Pipeline Capex and the capex for compressor.

Query b. Further, in view of there being no past data / reference point, SUG may be considered separately as per regulations.

IGGL Reply: - There is no SUG as NEGG is having motor driven compressor.

Query c. Since only Phase I is implemented now and the volume flow in FY 25 is 0.89 MMSCMD, whether the Compressor will be required to be operated in the initial years may please be examined by PNGRB, accordingly decision to consider the OPEX of the Compressor in the initial years may be taken.

IGGL Reply: A compressor would be required at Guwahati Despatch Terminal for supplying the natural gas to one of the customers at a minimum required pressure of 35 kg/cm². This compressor OPEX is included from the initial years.

ii. **GSPL Query:** As per PCD document, escalation has been provided for the electricity unit rate which is being consumed for compressor operations. PNGRB is requested to adopt similar modality across all pipelines including for gas-based compressors.

IGGL Reply: PNGRB to address. The inflation @4.5% is considered in the electricity unit rate as per the regulation of PNGRB.

iii. **GSPL Query:** Kindly give the basis of number of units consumed for compressor running in case the pipeline operates at lower capacity.

IGGL Reply: Annual Electrical energy consumption for compressor is considered based on projected gas transmission volume, on the basis of the electrical load data considering the number of operation days as 350 days annually with daily working hours as 24 hours.

iv. **GSPL Query:** As per PCD document the OPEX for pipeline is considered as 2.5% of the capex.

Query a. We request that detailed break-up for employee cost, repairs & maintenance, consumables etc may be provided.

IGGL Reply: OPEX for the pipeline is considered @2.5% of the CAPEX including inflation @4.5% per annum as per PNGRB regulations including all operational expenditure like employee cost; repair and maintenance, consumables etc as per prevailing industry practice.

Query b. Further kindly clarify the calculation of claimed pipeline OPEX of Rs.85.25 crore since it is not 2.5% of capex.

IGGL Reply: As mentioned in the PCD document, Rs. 85.25 Crore is as per the pre-revised model which is 2.5% of the CAPEX of the project without compressor and considering 4.5% inflation.

However, the same has been revised to Rs.84.58 crore in the updated tariff model which was submitted to PNGRB. The revised OPEX value is calculated @2.5% of CAPEX excluding Compressor and Interest During Construction (IDC) as advised by PNGRB and considering 4.5% inflation.

7.3.5 The Year-wise and head-wise Opex claimed is under:

(Rs. in crore)

Period	Electricity expenses for compressor station (variable costs) *	Other expenses for compressor station (fixed cost)	Operational Expenditure – Pipelines	Total Opex
2024-25	0.05	2.94	20.42	23.41
2025-26	1.66	12.29	85.34	99.30
2026-27	1.74	12.84	89.18	103.76
2027-28	21.24	13.42	93.20	127.86
2028-29	22.19	14.02	97.39	133.61
2029-30	23.21	14.65	102.23	140.09
2030-31	24.25	15.31	107.29	146.86
2031-32	25.35	16.00	112.58	153.93
2032-33	26.49	16.72	118.10	161.31
2033-34	27.68	17.48	123.87	169.03
2034-35	28.94	18.26	129.91	177.11
2035-36	30.24	19.08	136.21	185.54
2036-37	31.60	19.94	142.80	194.34
2037-38	33.02	20.84	149.68	203.54
2038-39	34.51	21.78	156.88	213.16
2039-40	36.07	22.76	164.40	223.23
2040-41	37.69	23.78	172.25	233.73
2041-42	39.39	24.85	180.46	244.70
2042-43	41.16	25.97	189.04	256.17
2043-44	43.01	27.14	198.01	268.15
2044-45	44.97	28.36	207.83	281.16
2045-46	46.98	29.64	218.10	294.72
2046-47	49.09	30.97	228.83	308.89
2047-48	51.29	32.36	240.05	323.70
2048-49	53.60	33.82	251.77	339.19
2049-50	56.04	35.34	264.01	355.39
2050-51	58.56	36.93	276.81	372.30
2051-52	61.19	38.59	290.18	389.96
2052-53	63.95	40.33	304.16	408.44
2053-54	66.82	42.15	318.76	427.73
2054-55	50.12	33.03	250.34	333.49
TOTAL	1,132.10	741.63	5,420.08	7,293.81

*Considering volume divisor submitted by entity

7.3.6 Clarification sought and response received by PNGRB-

- i. **Clarification sought by PNGRB during meeting held on 02.02.2024-** Since 100% capacity utilization would be there for long, prorata or estimated expense based on capacity utilization needs to be taken.

IGGL Response dated 07.02.2024: Phase wise utilization of compressor based on the flow rate in the pipeline power consumption has been re-casted and provided in the revised tariff model.

- ii. **Clarification sought by PNGRB dated 26.04.2024-** The basis and calculation of Opex pertaining to Annual energy consumption for operation of Compressor station claimed in the tariff filing.

IGGL Reply dated 30.04.2024: The basis and calculation of OPEX pertaining to Annual energy consumption for operation of compressor station in tariff filing is as provided in the revised filing.

- 7.3.7 **Regulatory Provision:** In terms of clause 5 of Schedule A of NGPL Tariff Regulations, 2008, Operating costs required in the operation and maintenance of the natural gas pipeline over its economic life shall be computed on an actual basis or based on a normative assessment by the Board, whichever is lower.

7.3.8 PNGRB Conclusion:

Inflation Rate: The regulation provides for the substitution of the projections made over economic life of the pipeline with the actual Capex/ Opex on a prospective basis at the time of periodic tariff review. By substituting the provisional figures with the actuals, the entity is not put to any advantage/ disadvantage over the economic life of the project. In effect, even if the adjustments are on a prospective basis considering the economic life of the project, the entity is still getting the benefit of prospective adjustments of the variations on account of the actual performance with respect to the Opex compared to the normative parameters identified under the NGPL Tariff Regulations.

In view of the above and to maintain consistency and uniformity, PNGRB has been following a uniform basis for estimating the annual Opex inflation at 4.50%.

Opex pertaining to electricity expenses (variable expenses) for compressor station has been considered @10/- per unit of Annual Energy Consumption (Million Units) per annum without escalation based on the volume divisor considered by PNGRB. The escalation has not been considered in line with non-consideration of the same with respect to gas price for purpose of calculation of System used Gas and Transmission loss.

As per past practice, PNGRB has been considering Future opex @ 2.5% of pipeline capex. Therefore, in order to maintain consistency, PNGRB has considered future Opex @ 2.5% of Pipeline Capex and the capex for compressor.

Entity in its tariff filing has not claimed natural gas pipeline tariff not recovered due to transmission loss. PNGRB has considered such unrecovered tariff on volumes lost during transmission as part of opex. (Refer para 7.4.4 below).

The actual data shall be considered at the time of finalization of initial unit natural gas pipeline tariff. The same will be trued up based on actual data including the opex on electric

compressors as per extant regulatory provision in future tariff reviews. The Year-wise opex considered by PNGRB is as follows-

(Rs. in crore)

Period	Claimed by Entity	Considered by PNGRB				
		Electricity expenses for compressor station	Other expenses for compressor station	Operational Expenditure - Pipelines	Tariff not recovered on Transmission Loss	Total Opex considered by PNGRB
2024-25	23.41	-	-	-	-	-
2025-26	99.30	1.59	10.00	85.34	0.05	96.98
2026-27	103.76	1.59	10.45	89.18	0.05	101.27
2027-28	127.86	18.62	10.92	93.20	0.55	123.28
2028-29	133.61	18.62	11.41	97.39	0.55	127.97
2029-30	140.09	18.63	11.92	101.77	0.55	132.87
2030-31	146.86	18.63	12.46	106.35	0.55	137.99
2031-32	153.93	18.63	13.02	111.14	0.55	143.34
2032-33	161.31	18.63	13.60	116.14	0.55	148.92
2033-34	169.03	18.63	14.22	121.37	0.55	154.76
2034-35	177.11	18.63	14.86	126.83	0.55	160.87
2035-36	185.54	18.63	15.52	132.54	0.55	167.25
2036-37	194.34	18.63	16.22	138.50	0.55	173.91
2037-38	203.54	18.63	16.95	144.73	0.55	180.87
2038-39	213.16	18.63	17.72	151.25	0.55	188.15
2039-40	223.23	18.64	18.51	158.05	0.55	195.76
2040-41	233.73	18.64	19.35	165.16	0.55	203.70
2041-42	244.70	18.64	20.22	172.60	0.55	212.01
2042-43	256.17	18.64	21.13	180.36	0.55	220.68
2043-44	268.15	18.64	22.08	188.48	0.55	229.75
2044-45	281.16	18.65	23.07	196.96	0.55	239.24
2045-46	294.72	18.65	24.11	205.82	0.55	249.14
2046-47	308.89	18.65	25.19	215.09	0.55	259.48
2047-48	323.70	18.65	26.33	224.77	0.55	270.30
2048-49	339.19	18.65	27.51	234.88	0.55	281.60
2049-50	355.39	18.66	28.75	245.45	0.55	293.41
2050-51	372.30	18.66	30.04	256.49	0.55	305.75
2051-52	389.96	18.66	31.40	268.04	0.55	318.65
2052-53	408.44	18.66	32.81	280.10	0.55	332.12
2053-54	427.73	18.66	34.28	292.70	0.55	346.20
2054-55	333.49	18.66	35.83	305.87	0.55	360.92
TOTAL	7,293.81	525.14	609.86	5,206.56	15.57	6,357.14

7.4 Transmission Loss

7.4.1 Entity in its tariff filing dated 06.02.2024 has considered transmission loss of Rs.195.66 crore from FY 2024-25 onwards till end of economic life. Later, entity has considered transmission loss of Rs. 171.76 crore from FY 2024-25 onwards till end of economic life in its updated tariff filing dated 15.11.2024. It is computed as 0.10% of the expected actual volume claimed in tariff filing.

The gas price considered for FY 2024-25 for computation of transmission loss is calculated as follows-

Sr. No.	Particulars	Amount	Remarks
1.	Domestic Gas Price including Premium of US\$2 (in US\$/MMBTU)	8.50	Gas price US\$6.50 from Dirok plus US\$2 per MMBTU Premium of Source
2	Exchange Rate (in Rs. /US\$)	82.79	The exchange rate considered by IGGL for FY 2023-24 is Rs. 82.79/US\$ with an annual escalation at 4.26% based on 10-year CAGR of INR/USD.
3	Gas Price (in Rs. /MMBTU) (3) = (1) * (2)	703.72	
4	Transportation cost: DNPL Tariff (in Rs. /MMBTU)	92.09	Gas will be sourced from DNP pipeline whose tariff for FY 2024-25 has been considered @ Rs. 92.09/MMBTU and it has been escalated annually @ 3% from FY 2025-26 onwards till end of economic life.
5	VAT @ 14.5% on Gas Price (in Rs. /MMBTU)	102.04	VAT @ 14.5% of gas price is considered.
6	GST @ 12% on Trans. (in Rs. /MMBTU)	11.05	GST @ 12% is added on the transmission cost.
7	Final Gas Cost for Calculation (in Rs./MMBTU) (3) + (4) + (5) + (6)	908.89	
	Final Gas Cost for Calculation (US\$/MMBTU)	10.98	

Note: no change in claim in gas cost as per Tariff filing on 06.02.2024 and Updated Tariff filing on 15.11.2024

7.4.2 Stakeholders comment and entity response based on PCD:

- i. **GSPL Query:** Gas Price for Transmission Loss — Entity has considered a premium of US\$2/MMBTU to Domestic Gas Price. In clause 6.4.2, the regulatory provision has been reproduced. a. Only an integrated Gas Company may be able to source gas at the rates mentioned in the regulations; however, a pure gas transmission company would not have the ability to source HPHT gas for its LUAG requirement. Accordingly, it is requested to permit

the actual cost of gas either domestic or RLNG for LUAG since this principle is similar to the provision for SUG in regulations.

IGGL Reply: - PNGRB may like to reply.

7.4.3 **Clarification sought and response received by PNGRB**

- i. **Clarification sought by PNGRB dated 23.01.2024:** Transmission Loss @ 0.3% has been taken in the model whereas NGPL Tariff regulations stipulate Transmission loss of 0.1%. The same may be corrected.

IGGL's response dated 25.01.2024: Transmission loss @ 0.1% has already been considered in the actual tariff model, however, in the assumption sheet inadvertently it is considered as 0.3%. Now its corrected to 0.1% as per PNGRB guidelines. There is no impact on the tariff due to this change in transmission loss. (It was a typographical error).

- ii. **Clarification sought by PNGRB:** IGGL while calculating the Transmission loss, Line Pack and Commissioning gas has considered a gas cost after adding US\$2/MMBTU as premium in gas price. IGGL is requested to provide the rationale of the same.

IGGL's response: As per information obtained from multiple gas sources, premium rates vary between US\$1-\$2/MMBTU. Premium is considered as US\$2/MMBTU for calculation of line pack, commissioning gas and transmission loss as per information received from upstream operator (Dirok HOEC) which is considered as a possible source for line pack and commissioning gas. Letter submitted by HOEC to IGGL mentioning gas price and premium is attached for your reference.

- iii. **Clarification sought by PNGRB during meeting dated 02.02.2024:** As per regulations, transmission loss @ 0.1% of the actual volumes is allowed, but IGGL has considered @0.3%.

IGGL Response dated 07.02.2024: Transmission loss was considered in the tariff model in line with the prevailing industry practice @0.3%. However, as advised, 0.1% is considered and the revised tariff model is submitted.

As per revised tariff model, the Transmission loss @0.1% has been worked out as Rs.195.66 crore.

7.4.4 **Regulatory Provision:** PNGRB vide amendment dated 17.11.2022 inserted sub clause 2 (d) of clause 5 (Operating costs) of Schedule A of Tariff Regulations-

“Transmission loss @ 0.1% of the actual volume, multiplied by the gas price plus applicable transmission charges.

Provided that for the future years, likely future volumes of the pipeline shall be considered for calculating the transmission loss.

Provided further that the gas price used for calculation of transmission loss shall be the gas price ceiling issued by Petroleum Planning & Analysis Cell in accordance with Ministry of Petroleum and Natural Gas, Govt of India, Notification No.O-22013/27/2012-ONG-D-V (Vol-II) dated 21.03.2016 for marketing including pricing freedom for gas being produced from discoveries in Deepwater, Ultra Deepwater and High Pressure-High Temperature areas or actual gas price, whichever is lower for the respective period.

PNGRB vide amendment dated 15.04.2024 inserted following clarifications to the above sub clause-

Clarification: The ‘applicable transmission charges’ referred above also includes the natural gas pipeline tariff not recovered due to transmission loss.”

7.4.5 **PNGRB Conclusion:** In view of the submissions made by IGGL and extant NGPL Tariff regulations, PNGRB has considered transmission loss @ 0.1% of estimated actual volumes as submitted by entity from FY 2025-26 onwards (refer deliberation in ensuing paras).

Gas price and Exchange Rate: In order to negate the effect of abnormal highs and lows and to maintain uniformity, the HP HT gas price from FY 2025-26 has been considered at the average of declared HP HT Ceiling price for the period 01.04.2016 to 31.03.2025 i.e. (US\$7.77/MMBTU). VAT @ 14.5% is considered from 01.04.2025 onwards till the end of economic life and is added to above gas prices. The actual gas price will be trued up based on actual data and extant regulatory provision in future tariff reviews. No escalation is considered on gas price. The exchange rate of Rs. 85.6232/US\$ as on 31st December 2024 published on RBI website has been taken into consideration.

Transportation tariff: IGGL has submitted transportation tariff of DNPL for consideration of transmission loss. Connectivity from DNPL is not yet authorised by PNGRB.

Duliajan-Numaligarh (DNPL) is a dedicated Natural Gas Pipeline under Regulation 19(2) of the PNGRB (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008. The connectivity between NEGG and DNPL is not yet authorised by PNGRB. However, in the absence of relevant information pending due to delayed commissioning, currently the transportation tariff of DNPL for procurement of gas excluding the GST on transportation tariff is being considered by PNGRB. As understood the GST paid on transportation of gas is available as credit while providing output services, therefore, it would not be prudent to consider GST on transportation of gas as cost. Further, PNGRB while determining previous tariff orders has not considered the GST on transportation as part of cost, however, the same shall be trued up while determining subsequent tariff review(s) in terms of the extant regulatory framework. In view of the above, the gas price as below is being considered in tariff determination:

FY Ending	Unit	Claimed By Entity	Considered by PNGRB FY 2025-26 onwards
Gas Price incl. MM/ Premium of Source	\$/MMBTU	8.50	7.77
Exchange Rate	INR/USD	82.79	85.6232
Gas price	INR/ MMBTU	703.72	665.29
Transportation Tariff	INR/ MMBTU	92.09	92.09
VAT @ 14.5% on Gas	INR/ MMBTU	102.04	96.47
GST @ 12% on Trans.	INR/ MMBTU	11.05	-
Final Gas Cost for Calculation	INR/ MMBTU	908.89	853.85

FY Ending	Unit	Claimed By Entity	Considered by PNGRB FY 2025-26 onwards
Final Gas Cost for Calculation	\$/ MMBTU	10.98	9.97

7.4.6 Based on the above, the year-wise transmission loss considered by PNGRB are as follows-
(Rs in crore)

Period	Claimed By Entity	Considered by PNGRB
2024-25	0.06	-
2025-26	0.27	0.24
2026-27	0.28	0.24
2027-28	3.40	2.83
2028-29	3.54	2.83
2029-30	3.69	2.83
2030-31	3.84	2.83
2031-32	4.00	2.83
2032-33	4.16	2.83
2033-34	4.33	2.83
2034-35	4.52	2.83
2035-36	4.70	2.83
2036-37	4.90	2.83
2037-38	5.10	2.83
2038-39	5.31	2.83
2039-40	5.53	2.83
2040-41	5.76	2.83
2041-42	6.00	2.83
2042-43	6.25	2.83
2043-44	6.51	2.83
2044-45	6.78	2.83
2045-46	7.06	2.83
2046-47	7.35	2.83
2047-48	7.66	2.83
2048-49	7.97	2.83
2049-50	8.31	2.84
2050-51	8.65	2.84
2051-52	9.01	2.84
2052-53	9.39	2.84
2053-54	9.78	2.84
2054-55	7.68	2.84
TOTAL	171.76	79.82

Note: The opex on tariff not recovered on transmission loss volumes is deliberated at Para 7.3.8

7.5 **Volume Divisor:**

7.5.1 The details of section-wise pipeline diameter, design capacity as per DFR is as under:

Section	Diameter (inch)	Design Capacity (MMSCMD)
Guwahati-Gohpur-Numaligarh section (GNPL)	24"	3.75
Numaligarh-Dimapur-Kohima-Imphal (NDKIPL)	12"	0.15
Gohpur-Itanagar (GIPL)	12"	0.04
Guwahati – Shillong – Silchar - Panisagar section	18"	0.91
Panisagar-Agartala	12"	0.22
Panisagar-Aizawl	12"	0.06
Siliguri – Gangtok section (Tap-off from BGPL)	12"	0.07

7.5.2 For expected volume, entity has considered Gas transmission agreements for more than a year. For normative volume, entity has considered capacity of 3.94 MMSCMD which includes 3.75 MMSCMD for GNPL, 0.04 MMSCMD for GIPL, proportionate capacity for DDPL (Part of NDKIPL) based on 0.15 MMSCMD capacity in DFR for NDKIPL from 01.01.2025 till end of economic life. Year-wise volume considered by entity in its tariff submission, the estimated actual volume and Normative Volumes as per regulations are as follows:

(In MMSCMD)

Period	Volume Divisor	Actual Volume	Normative volume (as per Regulation with Ramp-up)
2024-25	0.89	0.21	0.89
2025-26	1.03	0.21	1.03
2026-27	1.18	0.21	1.18
2027-28	2.42	2.42	1.33
2028-29	2.42	2.42	1.48
2029-30	2.42	2.42	1.77
2030-31	2.42	2.42	2.07
2031-32	2.42	2.42	2.36
2032-33	2.42	2.42	2.66
2033-34-2037-38	2.42	2.42	2.96
2038-39	2.77	2.42	2.96
2039-40	2.96	2.42	2.96
2040-41 to 2048-49	2.96	2.42	2.96
2049-50 to 2054-55	2.96	2.43	2.96

7.5.3 Entity in their submission has provided the calculation of volume divisor as follows-

Period	Normative Gas Transmission Volume	Estimated Gas Transmission Volume	Gas Transmission (Max)	Volume Credit (In line with Clause 10 of PNGRB regulation)	Adjustment	Volume Divisor
2024-25	0.89	0.21	0.89	-	-	0.89
2025-26	1.03	0.21	1.03	-	-	1.03
2026-27	1.18	0.21	1.18	-	-	1.18
2027-28	1.33	2.42	2.42	1.09	-	2.42

Period	Normative Gas Transmission Volume	Estimated Gas Transmission Volume	Gas Transmission (Max)	Volume Credit (In line with Clause 10 of PNGRB regulation)	Adjustment	Volume Divisor
2028-29	1.48	2.42	2.42	0.94	-	2.42
2029-30	1.77	2.42	2.42	0.65	-	2.42
2030-31	2.07	2.42	2.42	0.35	-	2.42
2031-32	2.36	2.42	2.42	0.06	-	2.42
2032-33	2.66	2.42	2.66	-	-0.24	2.42
2033-34	2.96	2.42	2.96	-	-0.53	2.42
2034-35	2.96	2.42	2.96	-	-0.53	2.42
2035-36	2.96	2.42	2.96	-	-0.53	2.42
2036-37	2.96	2.42	2.96	-	-0.53	2.42
2037-38	2.96	2.42	2.96	-	-0.53	2.42
2038-39	2.96	2.42	2.96	-	-0.19	2.77
2039-40	2.96	2.42	2.96	-	-	2.96
2040-41	2.96	2.42	2.96	-	-	2.96
2041-42	2.96	2.42	2.96	-	-	2.96
2042-43	2.96	2.42	2.96	-	-	2.96
2043-44	2.96	2.42	2.96	-	-	2.96
2044-45	2.96	2.42	2.96	-	-	2.96
2045-46	2.96	2.42	2.96	-	-	2.96
2046-47	2.96	2.42	2.96	-	-	2.96
2047-48	2.96	2.42	2.96	-	-	2.96
2048-49	2.96	2.42	2.96	-	-	2.96
2049-50	2.96	2.43	2.96	-	-	2.96
2050-51	2.96	2.43	2.96	-	-	2.96
2051-52	2.96	2.43	2.96	-	-	2.96
2052-53	2.96	2.43	2.96	-	-	2.96
2053-54	2.96	2.43	2.96	-	-	2.96
2054-55	2.96	2.43	2.96	-	-	2.96

7.5.4 Stakeholders comment and entity response based on PCD:

- i. **GSPL Query:** The authorized capacity is 4.75 MMSCMD (3.94 MMSCMD for Phase I). Kindly provide details on whether the capacity determination exercise has been carried out for the commissioned pipeline since the entitled tariff is linked to the pipeline capacity. If the capacity determination exercise is not completed, we request the Hon'ble Board to hold the declaration of tariff till capacity is declared as this is the first time the capacity determination exercise would be carried out.

IGGL Reply: Capacity determination exercise of the commissioned pipeline will be carried out after the pipeline is made operational. However, for tariff calculation capacity is considered as per DFR. (3.75 MMSCMD for GNPL + 0.04 MMSCMD for GIPL); proportionate Capacity for DDPL based on 0.15 MMSCMD capacity in DFR for DDPL.

- ii. **GSPL Query:** The volume divisor considered from FY 32-33 till FY 2047-48 may please be reviewed as it seems the lower figure has been inadvertently considered in the Volume Divisor column.
IGGL Reply: Volume credit adjustments have been done from Financial Year 32-33, as per Regulation 10(1).

7.5.5 Clarification sought and response received by PNGRB:

- i. **Clarification sought by PNGRB dated 23.01.2024:** Provide working for capacity taken as 3.94 mmcmd particularly "Proportionate Capacity for DDPL based on 0.15 MMSCMD capacity in DFR for DDPL."
IGGL's Response dated 25.01.2024: It is considered based on DFR only.
- ii. **Clarification sought by PNGRB dated 23.01.2024:** Kindly share the GTA for >1 year based on which actual volumes have been taken in the tariff model.
IGGL's Response dated 25.01.2024: GTA is not yet finalized, however the same is expected before March 2024. The volume considered in the tariff model is anticipated from the MOU and communications with consumers and upstream gas producers.
- iii. **Clarification sought by PNGRB during meeting held on 02.02.2024-** Adjustment of Volumes Variation As per Reg 10(1) of the Tariff Regulations.
IGGL Response dated 07.02.2024: As per Reg 10(1), volume credit adjustments have been done from Financial Year 32-33.
- iv. **Clarification sought by PNGRB dated 26.04.2024:** Kindly provide the copies of GTA entered with prospective customers so as to substantiate the expected volume considered in the Tariff model.
IGGL Reply dated 30.04.2024- IGGL has signed Last Mile Connectivity agreement with Northeast Gas distribution Company Limited (NEGDCL) on 18th April 2024 for hooking up IGGL's Grid with the CGD entity for their GA 11.03 for supply of Natural Gas from GNPL section. However, signing of GTA with NEGDCL is in process and expected to be completed shortly.

7.5.6 Regulatory Provision-

- i. Sub-clause (1) of clause 6 of Schedule A of Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008, states that:
“(1) The volumes of natural gas to be considered as divisor in the determination of the unit natural gas pipeline tariff over the economic life of the project shall be computed on a normative or actual basis, whichever is higher.
Provided that in case of future years, PNGRB shall consider the volumes taking into account various factors including normative volumes and likely future volumes as provided by the entity, if higher than the normative volumes.
Volume on normative basis shall be calculated as indicated below: -
(a) The divisor for each phase of natural gas pipeline for the first ten years of its operations or any subsequent expansion in the capacity (other than expansion to which clause 6 (1) (c) is applicable) shall be arrived by multiplying the applicable percentage utilization for the year, as per the basis indicated below, with seventy-five per cent of the capacity of each phase of natural gas pipeline or of natural gas pipeline or each expansion of capacity, as the case may be:

Year of natural gas pipeline operations	Percentage utilization
First	30%

Year of natural gas pipeline operations	Percentage utilization
Second	35%
Third	40%
Fourth	45%
Fifth	50%
Sixth	60%
Seventh	70%
Eighth	80%
Ninth	90%
Tenth and onwards	100%

- (b) The divisor for the eleventh and the subsequent years of operation of the natural gas pipeline or for each expansion (other than expansion to which clause 6 (1) (d) is applicable) in capacity of natural gas pipeline (including integrated natural gas pipeline) shall be equal to the seventy-five per cent of the capacity of natural gas pipeline or actual volumes (including ship or pay volumes), whichever is higher.
- (c) Notwithstanding anything contained in any other regulations, in case of addition of any new natural gas source to a natural gas pipeline which comes anytime from 01.04.2020 and onwards, any increase in the capacity of the pipeline, if any, because of such addition of such new source shall not be considered in the tariff determination for a period of five years from the date of commissioning of the pipeline connectivity due to the relevant source.
- (d) It is clarified that any new injection point on a common carrier or contract carrier natural gas pipeline due to interconnection from another common carrier or contract carrier natural gas pipeline shall not be considered as capacity expansion for determination of tariff. Provided that the entity has taken approval wherever required in terms of Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 along with the increase in capacity due to such interconnection as per Petroleum and Natural Gas Regulatory Board (Determining Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations, 2010. As per the Tariff Regulations, capacity of natural gas pipeline, for the purpose of determining natural gas pipeline tariff, shall be the authorized capacity as defined in Authorization Regulations.
 Provided that wherever there is any change between the authorized capacity and the capacity as already considered in the latest tariff order issued by the Board prior to the notification of this amended regulation, then such capacity as already considered in the latest tariff order shall be considered as capacity of natural gas pipeline for the purpose of determining tariff.
- ii. As per Petroleum and Natural Gas Regulatory Board (Determining Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations, 2010 (“Capacity Regulations”), as amended vide notification dated 18.11.2022, wherever there is any change in the capacity of natural gas pipeline in the past or in future due to reason(s) as approved by the PNGRB’s Board, in such cases entity shall submit the revised capacity of the natural gas pipeline, separately due to each such reasons, to PNGRB in terms of these regulations for capacity determination and approval of the Board. Such revised capacity or as modified in terms of clause (g) of sub regulation (5) of regulation 5 of Petroleum and Natural Gas Regulatory Board (Determining

Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations, 2010, shall be considered for tariff determination after its approval by the Board.

- iii. Regulation 10 of Tariff Regulations as amended vide notification dated 18.11.2022 provides as under: **Adjustment of volume variation in Tariff computation after final computations of initial unit natural gas pipeline tariff.**

(1) Adjustment shall be carried out in the normative volumes considered as per clause 6 (1) where normative being higher than actual volumes. The extent of adjustment shall be maximum upto the difference between actual volumes higher than the normative volumes considered in any of the year(s) of the economic life of the pipeline.

7.5.7 PNGRB's Conclusion:

The provisional capacity of 3.94 MMSCMD is considered from 01.04.2025 till the end of economic life. The ramp up in volume for first ten years has been considered in computation of normative volume. PNGRB vide amendment dated 18.11.2022 inserted provision for adjustment in the volume divisor which provides that adjustment shall be carried out in the normative volumes considered as per clause 6 (1) of NGPL Tariff Regulations where normative being higher than actual volumes. The extent of adjustment shall be maximum upto the difference between actual volumes higher than the normative volumes considered in any of the year(s) of the economic life of the pipeline.

IGGL has submitted volumes, higher than the Normative volumes for FY 27-28 to FY 31-32. Thus, creating a surplus to be available for adjustment/setoff under Regulation 10 of Tariff Regulation as mentioned above. In the years where the volumes are lower than normative, the surplus generated is used to compensate the difference in volume.

In view of the above and the extant regulatory framework, the year-wise capacity as submitted by the entity has been considered for current tariff determination. The same shall be trued up in subsequent reviews based on the extant regulatory framework:

(In MMSCMD)

Period	Volume Divisor
2025-26 to 2026-27	0.21
2027-28 to 2037-38	2.42
2038-39	2.51
2039-40 to 2054-55	2.96

Yearwise adjustments as per Regulation 10(1) are tabulated below-

Period	Normative Gas Transmission Volume	Estimated Gas Transmission Volume	Gas Transmission (Max)	Volume Credit (In line with Clause 10 of PNGRB regulation)	Adjustment	Volume Divisor
2025-26	0.89	0.21	0.89	-	-0.68	0.21
2026-27	1.03	0.21	1.03	-	-0.83	0.21
2027-28	1.18	2.42	2.42	1.24	-	2.42

Period	Normative Gas Transmission Volume	Estimated Gas Transmission Volume	Gas Transmission (Max)	Volume Credit (In line with Clause 10 of PNGRB regulation)	Adjustment	Volume Divisor
2028-29	1.33	2.42	2.42	1.09	-	2.42
2029-30	1.48	2.42	2.42	0.94	-	2.42
2030-31	1.77	2.42	2.42	0.65	-	2.42
2031-32	2.07	2.42	2.42	0.35	-	2.42
2032-33	2.36	2.42	2.42	0.06	-	2.42
2033-34	2.66	2.42	2.66	-	-0.24	2.42
2034-35	2.96	2.42	2.96	-	-0.53	2.42
2035-36	2.96	2.42	2.96	-	-0.53	2.42
2036-37	2.96	2.42	2.96	-	-0.53	2.42
2037-38	2.96	2.42	2.96	-	-0.53	2.42
2038-39	2.96	2.42	2.96	-	-0.45	2.51
2039-40	2.96	2.42	2.96	-	-	2.96
2040-41	2.96	2.42	2.96	-	-	2.96
2041-42	2.96	2.42	2.96	-	-	2.96
2042-43	2.96	2.42	2.96	-	-	2.96
2043-44	2.96	2.42	2.96	-	-	2.96
2044-45	2.96	2.42	2.96	-	-	2.96
2045-46	2.96	2.42	2.96	-	-	2.96
2046-47	2.96	2.42	2.96	-	-	2.96
2047-48	2.96	2.42	2.96	-	-	2.96
2048-49	2.96	2.42	2.96	-	-	2.96
2049-50	2.96	2.43	2.96	-	-	2.96
2050-51	2.96	2.43	2.96	-	-	2.96
2051-52	2.96	2.43	2.96	-	-	2.96
2052-53	2.96	2.43	2.96	-	-	2.96
2053-54	2.96	2.43	2.96	-	-	2.96
2054-55	2.96	2.43	2.96	-	-	2.96
TOTAL				4.33	-4.33	

7.6 Gross Calorific Value

7.6.1 IGGL in its submissions has considered Gross Calorific Value (GCV) of 9455 Kcal/SCM based on Calorific Value assumed for Tariff order of JHBDPL. JHBDPL being main source pipeline of GNPL throughout the economic life of the pipeline.

7.6.2 **Regulatory Provision:** As per sub-clause 2 in Clause 6 of Schedule A of NGPL 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.

7.6.3 **PNGRB's Conclusion:** Average Gross Calorific Value of 9500Kcal/SCM is considered for determination of the tariff. The GCV of 9455 Kcal/SCM considered by entity based on Calorific Value assumed for Tariff order of JHBDPL dated 04.06.2019 cannot be considered in the absence of exact data. The same shall be tried up based on the actuals in the subsequent reviews.

7.7 **Line Pack**

7.7.1 Entity has considered line pack cost of Rs. 15.14 crore in FY 2024-25 on a volume of 3.8212 MMSCM based on MECON PMC data at Max pressure 35 Kg/Cm². The gas price considered for line pack is \$10.98/MMBTU as explained in para 6.4 above. Gross Calorific Value (GCV) of 9455 Kcal/SCM based on Calorific Value assumed for Tariff order of JHBDPL is considered.

7.7.2 **Regulatory Provision:**

As per clause 6 of Attachment 2 to Schedule A of NGPL Tariff Regulations, Line pack is the value of gas which always remains in the pipeline and it is 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.

“(6) Treatment of line-pack volume in natural gas pipeline shall be as per the procedure indicated below: -

- (a) Assessment of the volume of natural gas required as line pack in the natural gas pipeline as and when commissioned shall be as specified in the relevant regulations for the technical standards and specifications, including safety standards.
- (b) The line-pack value of natural gas in natural gas pipeline and included in the total capital employed for determination of the unit natural gas pipeline tariff shall be considered as a non-depreciating fixed asset and the value to remain fixed over the economic life of the project.
- (c) The value of the line-pack volume shall be derived by multiplying the volume of line-pack by the average cost of natural gas at the point on injection of natural gas into the natural gas pipeline at the time of commissioning of the natural gas pipeline.
- (d) The salvage value of the line-pack volume at the end of the economic life of the project shall be equal to its value assessed at the time of its capitalization specified under sub-clause (b) and shall be considered as a project inflow.

7.7.3 **Clarification sought and response received by PNGRB:**

- i. **Clarification sought by PNGRB:** - The basis of line pack and commissioning gas may be shared in detail.

IGGL's Response: The details of line pack and Commissioning gas are based on the communication from MECON PMC of IGGL.

- ii. **Clarification sought by PNGRB dated 26.04.2024:** It is observed that the Gas Cost built-up for Line pack & Unaccounted Gas includes DNPL tariff of Rs. 92.08/MMBTU (plus applicable GST charges). Kindly provide the GTA along with necessary documents in support of transportation tariff claimed for procuring the gas.

IGGL Reply dated 30.04.2024: Line pack is being planned from nominated fields of Upper Assam. The Price of DNPL is considered for the calculation of line pack volume. However, once the line pack agreement is finalised the name of the entity along with the copy of procurement order shall be submitted.

7.7.4 **PNGRB's conclusion:** It is observed that DNPL tariff is considered for calculation of Line Pack cost. Duliajan-Numaligarh (DNPL) is a dedicated Natural Gas Pipeline under Regulation 19(2) of the PNGRB (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008. The connectivity between NEGG and DNPL is not yet authorised by PNGRB. Since the pipeline is yet to be commissioned, as of now, the Line Pack of Rs.15.68 crores (GCV is considered as 9500 Kcal/scm instead of 9455 Kcal/scm and exchange rate of Rs. 85.6232/US\$ as on 31st December 2024 published on RBI website) is considered as outflow on 01.04.2025 and inflow at the end of economic life. The same shall be trued up during subsequent reviews based on actual data.

7.8 **Return on Capital Employed**

7.8.1 Rates of corporate income tax applicable each year to IGGL and subsequent computation of pre-tax rate of return are as follows:

Year(s)	FY 2019-20 & onwards
Income Tax Rate	25.17%
Pre-tax rate of return	16.04%

7.8.2 **Regulatory Provision:** 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 project's 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 assesseees as per the provisions of Income Tax Act, 1961. As per the amendment to explanation to clause 3, the lowest nominal rate of income tax shall be applied with effect from the financial year of the amendment regulation i.e. FY 2022-23 onwards.

7.8.3 **Clarification sought and response received:**

i. **Clarification sought by PNGRB during meeting dated 02.02.2024:** Pre-commissioning Capex period discounting formula to be without any adjustments for nominal rate of tax.

IGGL's Response dated 07.02.2024: Since cash flows during pre-commissioning periods are also discounted to work out IRR for project, tax rate is also considered to arrive at post-tax IRR.

7.8.4 **PNGRB Conclusion:** In view of above regulatory provisions, the corporate income tax rate and pre-tax rate of return as submitted by entity from FY 22-23 is considered by PNGRB on cashflows for determination of tariff.

7.9 **Working Capital**

7.9.1 IGGL in its tariff submission dated 06.02.2024 has considered average working capital of Rs.49.88 crore from FY 24-25 till the end of the economic life of the pipeline. Further, in its updated tariff submission dated 15.11.2024 entity has considered average working capital of Rs.48 crore from FY 24-25 till the end of the economic life of the pipeline. The average working

capital is calculated as sum of 30 days of Opex (excluding depreciation) and 18 days of revenue (tariff receivables). Therefore, average working capital excluding line pack is Rs.89.35 crore.

7.9.2 **Regulatory Provision:** As per clause 4 of schedule A of Tariff Regulation, working capital is calculated as sum of 30 days of Opex (excluding depreciation) and 18 days of revenue (tariff receivables).

7.9.3 **PNGRB's Conclusion:** In view of the above and various adjustments made as deliberated under various paras, average working capital of Rs.46.59 crore has been considered in tariff determination.

7.10 **Terminal Value**

7.10.1 **Tariff Submission:** IGGL, in its tariff submission dated 06.02.2024 has considered a terminal value of Rs.920.56 crore consisting of residual value of NFA of Rs.836.95 crore, line pack Rs.15.14 crore and total release of working capital Rs.68.47 crore.

Further, in its updated tariff submission dated 15.11.2024 entity has considered a terminal value of Rs.920.56 crore consisting of residual value of NFA of Rs.749.05 crore, line pack Rs.15.14 crore and release of working capital Rs.69.23 crore.

7.10.2 **Regulatory Provision:** 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.

7.10.3 **Clarification sought and response received:**

Clarification sought by PNGRB 26.04.2024: It has been observed that as per assumption sheet in excel model, it is stated 2% terminal value is considered on capitalized project cost and 100% terminal value for ROU & Land is considered. However, for calculation in terminal value sheet, the salvage value is taken as NIL. In this regard, it is requested to provide the accounting policy for depreciation of tangible assets and their salvage value.

IGGL Reply dated 06.05.2024: Salvage value is taken as NIL on capitalized asset and same is wrongly mentioned as 2% Terminal Value in Assumption Sheet. May please consider as per the working.

7.10.4 **PNGRB Conclusion:** It was observed that entity had considered NIL salvage value of Assets (except land and ROU Crop compensation). Terminal value @5% is considered by PNGRB in line with practices during processing of previous tariff order(s). The terminal value is considered as cash inflow at the end of economic life of the pipeline. After adjustments as listed above, the terminal value considered in tariff determination is as follows:

(Rs. in crore)	
Particulars	Amount
Residual value of assets	509.27
Closing Working capital	63.30
Line Pack	15.68

Particulars	Amount
Total	588.25

7.11 **Zonal Apportionment:** Since the length of the North-East Natural Gas Pipeline Grid (“NEGG”) network of IGGL exceeds 300 km, the apportionment of the levelized tariffs is required to be undertaken post finalization of the provisional tariff.

7.12 **Inclusion of NEGG pipeline in the list of natural gas pipeline which are part of the National Gas Grid system-**

7.12.1 As given at para 3 above, IGGL has requested that NEGG pipeline be included in the list of natural gas pipelines which are part of the National Gas Grid system for calculation of Unified Tariff in Schedule C of Tariff Regulations.

7.12.2 **Stakeholders comment and entity response based on PCD:**

i. **GSPL Query:** It is mentioned that NEGG is proposed to be made part of the NGGS from 01.04.2024 and enlist NEGG in Schedule C of these regulations. The estimated cost is around Rs. 369 crores per MMSCMD. The Phase I proposed a Levelized tariff of Rs. 160.93/MMBTU is higher than the existing Zone 3 tariff of NGGS. This will tend to further increase the levelized tariff of NGGS. Since the initial volume of NEGG is expected to be very low in the Year 24-25, the impact will not be huge. But as their volume increases, it will have a higher impact on UFT. Thus it is another case of far-off customers getting subsidised by the customers near the source as such a huge tariff will get loaded on UFT. This will make gas non-competitive to the customers near the source and encourage them to switch to alternate fuels. This will impact the vision of the GOI to increase the market share of gas in the primary energy mix from 6% to 15%. Further over a period of time it will encourage customers near the source to lay Dedicated Pipelines.

IGGL Reply: - It is not in the prerogative of IGGL.

ii. **GSPL Query:** Request for exclusion from UFT a. The expected date of commissioning may please be confirmed since it is mentioned that 'as on date' (mostly 10th Jan 24), the project is likely to be commissioned by March 24. If the Project is not likely to be commissioned before March 2024, we request the Hon'ble Board to exclude the NEGG from UFT. b. Further, under current proposal, the tariff is calculated for 541 km with capex of Rs. 3637 crores and capacity of 3.94 MMSCMD. In future on completion of balance phases, there would be significant increase in capex vis-à-vis volume for tariff calculation. This will lead to significantly higher determination of NEGG tariff. Loading the same in UFT will have major impact on existing consumers / markets. Hence inclusion of the NEGG pipeline as part of NGGS may be kept on hold.

IGGL Reply: Commercial viability has been established considering only one IRR for the whole project considering all three phases. Once the project is completed in all aspects the tariff will be subject to revision and one tariff for one grid will exist.

The NEGG is a strategic initiative, conceived in line with the Hydrocarbon Vision 2030 for the Northeast, to develop a gas-based economy in the Northeast by connecting the eight Northeastern states and the viable gas sources to the National Gas Grid. The Cabinet Committee on Economic Affairs has approved a Capital Grant of 60% as Viability gap Funding for the implementation of this project of National importance as this key connectivity infrastructure network will not only ensure a reliable supply of natural gas to consumers but

will also trigger cascading investments promoting industrial development while prioritizing environmental conservation.

Further, the integration of this bidirectional pipeline grid with the viable & sustainable gas sources of the Northeast will help in the evacuation of natural gas from the isolated gas fields of the upstream operators ensuring early monetization of natural resources and thereby boosting Exploration & Production activities in the region besides helping in the reduction of flaring in the Northeast.

In view of above, it will be prudent to include the NEGG in the National Gas Grid for the determination of tariffs for contributing towards a greater cause and supplementing the efforts of the Government for realizing a gas-based economy in the Northeast.

7.12.3 **Regulatory Provision:** The methodology for determination of NGPL tariff has been specified in the relevant provisions of Tariff Regulations. Further, the methodology for determination of unified tariff and its applicability has been inserted in the Tariff Regulations by way of amendment, i.e., PNGRB (Determination of Natural Gas Pipeline Tariff) Second Amendment Regulations, 2020, PNGRB (Determination of Natural Gas Pipeline Tariff) Second Amendment Regulations, 2022 and Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Amendment Regulations, 2023.

7.12.4 **PNGRB's Conclusion:** In terms of the extant regulatory framework, NEGG is proposed to be made part of national gas grid system (NGGS) from the expected date of its commissioning and enlist NEGG in Schedule C to these regulations by amendment of the said Schedule C from time to time. Also, as provided in Schedule D to these regulations, IGGL would be included in the Industry Committee and Settlement Committee.

7.13 **Tariff Reconciliation**

Based on the above, the Provisional unit natural gas pipeline tariff for IGGL on a levelized basis is given below:

(Rs. /MMBTU on GCV basis)

S. No.	Particulars	Impact	Tariff
	Submitted Tariff		163.18
1.	Economic Life/Discounting factor (para 7.1)	-4.79	158.39
2.	Volume Divisor (para 7.5)*	17.39	175.78
3.	Future Capex/Opex (para 7.2 and para 7.3)	-5.00	170.78
4.	Opex (changes in transmission loss, compressor opex) (para 7.4)	-3.23	167.55
5.	Calorific Value/Working capital/Terminal Value/Line pack (para 7.6, para 7.9, para 7.10, para 7.7.4)	-0.92	166.63
	Provisional Tariff Determined by PNGRB w.e.f. 01.04.2025		166.63

*The increase in Tariff is primarily due to the adjustment of volume credit in the initial two years where the estimated volume is less than the normative volume. (Refer Para 7.5.7)

8 Decision

- 8.1 The provisional initial unit pipeline tariff of North-East Natural Gas Pipeline Grid (“NEGG”) of Indradhanush Gas Grid Limited (“IGGL”) as per the details given in para 7.13 above shall be Rs.166.63/MMBTU on GCV basis w.e.f. 01.04.2025 onwards.
- 8.2 Apportionment of levelized tariff over all the tariff zones with calculations will be submitted by IGGL for the Board’s approval within 7 days of the issuance of the tariff order.
- 8.3 The above tariff has been worked out based on information provided by the entity and deliberations above. However, the consideration of any capex / opex / economic life in tariff determination does not tantamount to authorization / information to PNGRB and the same needs to be taken / given by the entity from PNGRB in terms of the extant regulatory framework. Further, PNGRB may verify/audit the information provided for tariff determination and method of cost allocation, etc. by internal team of PNGRB or by an external agency. Accordingly, tariff as determined above will be subject to revision based on aforesaid authorization, information, economic life, verification/audit of the information, data, method of allocation, etc. submitted by the entity.

Sd/- (Dr. Anil Kumar Jain) Chairperson	Sd/- (Gajendra Singh) Member- I	Sd/- (Anjani Kumar Tiwari) Member- II	Sd/- (A. Ramana Kumar) Member- III
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