

PenBrook Capital Advisors

Date: June 14, 2019

BSE Limited
Listing Department,
1st Floor, Phiroze Jeejeebhoy Towers,
Dalal Street, Fort
Mumbai – 400001

Reference: India Infrastructure Trust (Scrip Code 542543)
Subject: Valuation Report for India Infrastructure Trust

Dear Sir/ Madam,


Pursuant to Regulation 21 and other applicable provisions of Securities and Exchange Board of India (Infrastructure Investment Trusts) Regulations, 2014 read with the Schedules and Circulars issued thereunder and as amended from time to time, please find attached the Valuation Report dated May 30, 2019 for assets of India Infrastructure Trust for the financial year ended March 31, 2019 issued by Registered Valuer.

Kindly take the same on record.

For **India Infrastructure Trust**

PenBrook Capital Advisors Private Limited

(acting in its capacity as the Investment Manager to India Infrastructure Trust)



Sridhar Rengan
Director



CC: Axis Trustee Services Limited, Axis House, Bombay Dyeing Mills Compound, Pandurang
Budhkar Marg, Worli, Mumbai – 400 025, Maharashtra, India

Valuation Report

India Infrastructure Trust (“Trust”)

(Acting through Axis Trustee Services Limited in its capacity as Trustee of the Trust)

&

PenBrook Capital Advisors Private Limited

(In its capacity as Investment Manager of the Trust)

Valuation of InvIT Asset as per Securities and Exchange Board of India (Infrastructure Investment Trusts) Regulations, 2014

May 2019

Ref: MG/01/2019

May 30, 2019

To,

India Infrastructure Trust (the "Trust")

Acting through Axis Trustee Services Limited (In its capacity as the "Trustee" of the Trust)

Unit 804, 8th Floor,

A Wing, One BKC, Bandra Kurla Complex,

Bandra East, Mumbai - 400051,

Maharashtra, India

To,

PenBrook Capital Advisors Private Limited

(In its capacity as the "Investment Manager" of the Trust)

Peninsula Spenta, Mathuradas Mills Compound,

Senapati Bapat Marg, Lower Parel, Mumbai - 400013

Maharashtra, India

Dear Sir(s)/Madam(s),

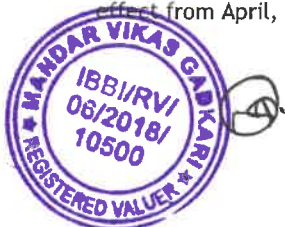
Sub: Valuation of InvIT Asset as per Securities and Exchange Board of India (Infrastructure Investment Trusts) Regulations, 2014, as amended

I refer to the engagement letter dated May 02, 2019 appointing Mr. Mandar Vikas Gadkari (hereinafter referred to as "Valuer", "I," or "My" or "Me") with IBBI Registration Number IBBI/RV/06/2018/10500, to provide professional services to PenBrook Capital Advisors Private Limited ("Investment Manager" or "IM") acting in the capacity of Investment Manager of India Infrastructure Trust (the "Trust" or "InvIT") with respect to determination of value of InvIT Asset (defined hereinafter below) as per the requirements of Securities and Exchange Board of India (Infrastructure Investment Trusts) Regulations, 2014 and amendments thereto including any circulars and guidelines issued thereunder ("SEBI InvIT Regulations").

In the instant case, the "InvIT Asset" refers to Pipeline (defined in para 2.1.5 of this Report) owned by Pipeline Infrastructure Limited¹ ("PIL" or "the Company"). The InvIT and/or PIL along with other parties have entered into various agreements collectively referred as the Transaction Documents (defined in Section 1 of this Report) which *inter alia* govern the rights and interest of InvIT in the InvIT Asset. The economic interest of InvIT in the InvIT Asset is valued after considering the agreed terms of the Transaction Documents.

I thereby enclose my independent valuation report dated May 30, 2019 ("the Report" or "this Report") providing the enterprise value of the InvIT Asset on a going concern basis considering

¹ The name was changed from Pipeline Infrastructure Private Limited to Pipeline Infrastructure Limited with effect from April, 25 2019



current condition of the InvIT Asset and based on data as stated in “Sources of Information” of the Report. The cut-off date of the current valuation exercise for market factors including market price is considered as March 31, 2019 (“Valuation Date”). Further, the valuation of the InvIT Asset has been undertaken assuming all the requisite approvals have been obtained for the Pipeline Business (defined in para 2.1.5 of this Report) to be operated in the name of PIL.

This report is being prepared for compliance with Regulation 21(4) of the SEBI InvIT Regulations for submission to the Trustee and the designated stock exchange. This Report should not be used or relied upon for any other purpose.

In terms of the SEBI InvIT Regulations, the Valuer hereby confirms and declares that:

- The Valuer is competent to undertake the valuation;
- The Valuer is independent and has prepared this Report on a fair and unbiased basis;
- This Report is prepared in compliance with regulation 13(1) and regulation 21 of the SEBI InvIT Regulations;

The Valuer further confirms that the valuation of InvIT Asset is carried out as per internationally accepted valuation methodologies and in cognizance of international valuation standards and ICAI Valuation Standards 2018 issued by the Institute of Chartered Accountants of India.

The Valuer has no present or planned future interest in PIL, InvIT Asset or the IM, except to the extent of my appointment as an independent valuer for this Report.

A summary of the analysis is presented in the accompanying Report, as well as description of the methodology and procedure used, and the factors considered in formulating my opinion. This Report is subject to the attached exclusions and limitations and to all terms and conditions provided in the engagement letter for this assignment.

This Report is based on the information provided by the management of PIL and/ or the IM (“Management”). The projections provided by the IM are only the best estimates of growth and sustainability of revenue and profitability margins. I have reviewed the financial forecast for consistency and reasonableness and relied on them. Further with respect to forecast of volume to be transported through the Pipeline by PIL, I have placed reliance on the “EWPL Due Diligence Abridged Report for Disclosure in Private Placement Memorandum” dated December 21, 2018 issued by Wood Mackenzie Asia Pacific Pte. Ltd. (“Wood Mackenzie Report”) as provided to me by IM.

Regards,



Mandar Vikas Gadkari
Registered Valuer

Registered Valuer Regn No. - IBBI/RV/06/2018/10500



Encl: As above

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1 Definitions, abbreviations & glossary of terms

Abbreviations	Definitions/Meanings
AP	Andhra Pradesh
Appointed Date	The date, being July 1, 2018, with effect from which the Scheme of Arrangement has come into effect.
APTEL	Appellate Tribunal for Electricity
BCM	Billion Cubic Meters
BSE	BSE Limited
BV	Breakup Value
CAGR	Compounded Annual Growth Rate
CCM	Comparable Companies Multiple
CCPS	0.1% Compulsory Convertible Preference Shares
Completion Date	March 22, 2019
Contractor	Rutvi Project Managers Private Limited
CS	Compressor Station
CTM	Comparable Transaction Multiple
DCF	Discounted Cash Flow
DE	Debt-Equity
DUPL	Dahej Uran Pipeline
DVPL	Dahej Vijaipur Pipeline
EWPL	East West Pipeline Limited (formerly Reliance Gas Transportation Infrastructure Limited)
FCFE	Free Cash Flow to Equity
FICCI	The Federation of India Chambers of Commerce and Industry
FICCI Report	FICCI Report titled "India Gas Infrastructure: Strategies to accelerate to a Gas based Economy" dated October 4, 2017 prepared by FICCI's knowledge partner Ceresta Business Consulting LLP
FIMMDA	Fixed Income Money Market and Derivatives Association
Framework Agreement	The framework agreement dated August 28, 2018, entered amongst RIHPL, the Sponsor, the Investment Manager and PIL
FY	Financial Year
GCV	Gross Calorific Value
GHV	Gross Heating Value
GJ	Gujarat
GSA	Gas Supply Agreement
GSPL	Gujarat State Petronet Ltd
GSPCL-HP	Gujarat State Petroleum Corporation Ltd. - High Pressure
GTA	Gas Transportation Agreement
ICAI	Institute of Chartered Accountants of India
Infrastructure Sharing Agreement	Infrastructure Sharing Agreement dated February 11, 2019 between Contractor, Sub-Contractor and PIL



Abbreviations	Definitions/Meanings
Investment Manager or IM	PenBrook Capital Advisors Private Limited
InvIT or Trust	India Infrastructure Trust
InvIT Asset or Pipeline or Initial Portfolio Asset	The cross-country pipeline (including spurs) between Kakinada in Andhra Pradesh and Bharuch in Gujarat, transferred to PIL with effect from the Appointed Date, pursuant to the Scheme of Arrangement, being the InvIT Asset for the purposes of the SEBI InvIT Regulations
Joint Venture Agreement	The joint venture agreement dated February 11, 2019, entered into between the Project Manager, RIL and the Contractor and amendments thereto
KG Basin	Krishna Godavari Basin
LNG	Liquified Natural Gas
Management	Management of PIL and IM
MDQ	Maximum Delivery Quantity
MH	Maharashtra
MLV	Mainline Sectionalizing Valve
mmbtu	One Million British Thermal Units
mmscmd	Million Metric Standard Cubic Meter Per Day
Mn	Million
NAV	Net Asset Value
NCLT	National Company Law Tribunal
NELP	New Exploration and Licensing Policy
OT	On-shore Terminals
O&M Agreement	Operations and maintenance agreement, dated February 11, 2019 amongst PIL, Contractor and the Project Manager
O&M Sub-Contractor Agreement	Operations and Maintenance Sub-contractor Agreement, dated February 11, 2019 amongst PIL, Contractor and Sub-Contractor
Pipeline Business	The entire activities and operations historically carried out by EWPL with respect to transportation of natural gas through the Pipeline and related activities, as a going concern, which was acquired by PIL with effect from the Appointed Date, as further defined in the Scheme
PIL SHA	Shareholders' and Options Agreement dated February 11, 2019 amongst PIL, EWPL, RIL, IM and the Trust and amendments thereto
PIL/Company	Pipeline Infrastructure Limited (Previously known as Pipeline Infrastructure Private Limited)
PNGRB	Petroleum and Natural Gas Regulatory Board
PNGRB Report	PNGRB report by industry group titled "Vision 2030 - Natural Gas Infrastructure in India Report", available at http://www.pngrb.gov.in/Hindi-Website/pdf/vision-NGPV-2030-06092013.pdf
Project Manager	ECI India Managers Private Limited
PUA	A Pipeline Usage Agreement, which PIL and RIL have entered into on March 19, 2019 setting out the terms of reservation and usage of capacity in the Pipeline by RIL and includes amendments to the agreement
RIIHL	Reliance Industrial Investments And Holdings Limited
RIHPL	Reliance Industries Holding Private Limited



Abbreviations	Definitions/Meanings
RIL	Reliance Industries Limited
ROCE	Return on Capital Employed
Scheme/ Scheme of Arrangement	The scheme of arrangement between EWPL (as the demerged entity), PIL and their respective creditors and shareholders under Sections 230 to 232 of the Companies Act, 2013 read with the Companies (Compromises, Arrangements and Amalgamations) Rules, 2016, and other applicable provisions, if any, of the Companies Act, 2013, as amended from time to time, for the demerger of the Pipeline Business from EWPL to PIL
SEBI InvIT Regulations	Securities and Exchange Board of India (Infrastructure Investment Trusts) Regulations, 2014 and amendments thereto including any circulars and guidelines issued thereunder
SPA	Share Purchase Agreement dated February 11, 2019 amongst the Trust, the Investment Manager, RIHPL and PIL and amendments thereto
SSA	PIL Share Subscription Agreement dated February 11, 2019 amongst PIL, RIHL, and Trust
Shared Services Agreement	The Shared Services Agreement dated February 11, 2019 entered amongst RIL, PIL and the Contractor and amendments thereto
Sponsor	Rapid Holdings 2 Pte. Ltd.
Sub-Contractor	Reliance Gas Pipelines Limited
SUG	System Use Gas
Transaction Documents	Transaction documents shall mean the Framework Agreement, the Scheme of Arrangement, the Joint Venture Agreement, the PIL SHA, the SPA, the O&M Agreement, the O&M Sub-Contractor Agreement the Pipeline Usage Agreement, Shared Services Agreement, SSA and Infrastructure Sharing Agreement and amendments to these agreements
Trustee	Axis Trustee Services Limited
TS	Telangana
Valuation Date	March 31,2019
WACC	Weighted Average Cost of Capital
Wood Mackenzie	Wood Mackenzie Asia Pacific Pte. Ltd.
Wood Mackenzie Report	EWPL Due Diligence Abridged Report for Disclosure in Private Placement Memorandum issued by Wood Mackenzie Asia Pacific Pte. Ltd. dated December 21, 2018



2 Executive Summary

2.1 Brief Background and Purpose

- 2.1.1 India Infrastructure Trust (“the Trust” or “InvIT”) is a contributory irrevocable trust set up under the provisions of the Indian Trusts Act, 1882. This Trust has been set up on November 22, 2018.
- 2.1.2 The Trust is an infrastructure investment trust registered on January 23, 2019 under the SEBI InvIT Regulations having registration number IN/InvIT/18-19/0008. The Trust was set up in order to invest in infrastructure projects in accordance with the SEBI InvIT Regulations.
- 2.1.3 The initial portfolio asset of the Trust is the Pipeline. The Pipeline was earlier owned by EWPL and pursuant to the Scheme of Arrangement between EWPL and PIL, as sanctioned by NCLT Mumbai vide order dated December 21, 2018 and NCLT Ahmedabad vide order dated November 12, 2018, was transferred to PIL. Currently, the Trust holds 100% of equity share capital of PIL.
- 2.1.4 The Trust, the Investment Manager, Reliance Industries Holding Private Limited (“RIHPL”) and PIL had entered into a Share Purchase Agreement (“SPA”) wherein the Trust acquired 100% of the issued and paid-up equity share capital of PIL from RIHPL on the Completion Date i.e. March 22, 2019 (“Transaction”).
- 2.1.5 ~~PIL operates a cross country, natural gas pipeline with a pipeline length of ~1,480 kms (including dedicated lines) together with compressor stations and operation centres that stretches from Kakinada (Andhra Pradesh) to Bharuch (Gujarat) traversing through the states of Andhra Pradesh, Telangana, Karnataka, Maharashtra and Gujarat (the asset is referred as “Pipeline” and activity of operating the Pipeline is referred as “Pipeline Business”). Historically, the Pipeline Business has been owned and operated by EWPL.~~
- 2.1.6 PIL and RIL have entered into a Pipeline Usage Agreement (“PUA”) on March 19, 2019 and amendments thereto pursuant to which RIL will make agreed payments on a quarterly basis in order to reserve certain capacity in the Pipeline for transportation of gas.
- 2.1.7 As per regulation 21(4) of SEBI InvIT Regulations -
“A full valuation shall be conducted by the valuer not less than once in every financial year. Provided that such full valuation shall be conducted at the end of the financial year ending March 31st within two months from the date of end of such year.”
- 2.1.8 In this regards, the IM has appointed the Valuer to undertake the valuation of InvIT Asset in compliance of the above SEBI InvIT Regulation. (“Purpose”).

2.2 Valuation Methodology Adopted

- 2.2.1 Considering the nature of business and information available, InvIT Asset has been valued using Discounted Cash Flow (“DCF”) Method under Income Approach. I have used Free Cash Flow to Equity (“FCFE”) model under the DCF Method to arrive at the value of InvIT Asset.



2.3 Valuation Conclusion

- 2.3.1 The tariff as approved by PNGRB vide order dated March 12, 2019 considered for valuation of InvIT Asset is INR 71.66 per mmbtu.
- 2.3.2 The enterprise value of InvIT Asset is arrived at INR 187,777.5 Mn. The enterprise value of InvIT Asset attributable to the InvIT pursuant to the agreed terms of the Transaction Documents is arrived at INR 140,561.8 Mn.

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3 Introduction

3.1 Terms of Engagement

- 3.1.1 I, Mr. Mandar Vikas Gadkari having IBBI Registration number IBBI/RV/06/2018/10500, have been appointed by Investment Manager, to determine the enterprise value of InvIT Asset on a going concern basis as per SEBI InvIT Regulations.
- 3.1.2 This Report has been prepared by the Valuer pursuant to terms of engagement letter dated May 02, 2019 between the Valuer and the Investment Manager including the terms and conditions set out therein.

3.2 Background and Purpose of Valuation

- 3.2.1 The Trust is a contributory irrevocable trust set up under the provisions of the Indian Trusts Act, 1882 on November 22, 2018.
- 3.2.2 The Trust is an infrastructure investment trust registered on January 23, 2019 under the SEBI InvIT Regulations having registration number IN/InvIT/18-19/0008. The Trust was set up in order to invest in infrastructure projects.
- 3.2.3 The initial portfolio asset of the Trust is a pipeline used for the transportation of natural gas, with the potential to induct new assets in due course. The Pipeline is a cross-country, natural gas pipeline with a pipeline length of approximately 1,480 km (including dedicated lines) together with compressor stations and operation centres that stretches from Kakinada, Andhra Pradesh, in the east of India, to Bharuch, Gujarat, in the west of India, traversing adjacent to major cities in the states of Andhra Pradesh, Telangana, Karnataka, Maharashtra and Gujarat. Historically, the Pipeline was owned and operated by EWPL.
- 3.2.4 The Pipeline has been transferred from EWPL to PIL with effect from the Appointed Date, pursuant to a Scheme of Arrangement that has been sanctioned by the National Company Law Tribunal, Bench at Ahmedabad and the National Company Law Tribunal, Bench at Mumbai (together the "NCLTs") on November 12, 2018 and December 21, 2018 respectively (the "Scheme of Arrangement" or "Scheme"). Currently, the Trust beneficially holds 100% of the equity share capital of PIL.
- 3.2.5 PIL and RIL have entered into a pipeline usage agreement ("Pipeline Usage Agreement" or "PUA") dated March 19, 2019 and amendments thereto pursuant to which RIL has agreed to make payments to PIL on a quarterly basis in order to reserve certain annual capacity of the Pipeline.
- 3.2.6 Rapid Holdings 2 Pte. Ltd ("Sponsor") is the sponsor of the Trust, PenBrook Capital Advisors Private Limited is the Investment Manager of the Trust and Axis Trustee Services Limited is the Trustee of the Trust.
- 3.2.7 ECI India Managers Private Limited, as the project manager (the "Project Manager"), are responsible for the execution and management of the projects.
- 3.2.8 The Project Manager, PIL and Rutvi Project Managers Private Limited (the "Contractor") have entered into an agreement for the provision of certain operations and maintenance services by the Contractor in respect of the Pipeline ("O&M Agreement").
- 3.2.9 In accordance with the sub-contracting provision in the O&M Agreement, the Contractor, PIL and Reliance Gas Pipelines Limited (the "Sub-Contractor") have entered into an operations



and maintenance sub-contract agreement (the “O&M Sub-Contract Agreement”) for the operation and maintenance of a section of the Pipeline.

- 3.2.10 Framework Agreement recorded the understanding among the parties for, among others (1) transfer of the entire issued equity share capital of PIL to the Trust; (2) subscription by the Trust to the Non-Convertible Debentures issued by PIL (“PIL NCDs”); (3) transfer of the Pipeline Business from EWPL to PIL pursuant to the Scheme of Arrangement; and (4) repayment of the unsecured liability of ₹164,000 million.
- 3.2.11 PIL SHA sets out rights and obligation of parties to the agreement in relation to PIL, including those of the Trust as the equity shareholder of PIL and the holder of the PIL NCDs, and of RIL and the Trust in relation to the purchase and transfer of the equity shares of PIL under certain circumstances and the manner of distribution of cash flows of PIL and the terms of the redeemable preference shares in compliance with applicable law.
- 3.2.12 Shared Service Agreement sets out the terms for RIL to provide PIL and the Contractor with certain identified services in connection with the Pipeline Business, for a period of three years, in order to enable business continuity, seamless operations and an effective cost structure of the Pipeline Business, pursuant to the demerger of the Pipeline Business from EWPL to PIL.
- 3.2.13 SSA records the understanding among various parties with respect to issue, allotment and subscription of the CCPS.
- ~~3.2.14 Infrastructure Sharing Agreement sets out the terms for permitting sub-contractor’s non-exclusive access to certain facilities of Sub-contractor which are laid on the Pipeline’s right of usage area and are co-located with the Pipeline facilities;~~
- 3.2.15 Joint Venture Agreement records the understanding among various parties which include operation of and maintenance of Pipeline on behalf of PIL and the Project Manager.
- 3.2.16 The units of the Trust are listed on BSE by way of private placement.
- 3.2.17 In line with the Purpose mentioned earlier, the IM has appointed Mr. Mandar Vikas Gadkari to undertake the valuation of InvIT Asset in compliance of the SEBI InvIT Regulations.
- 3.2.18 This Report should not be used or relied upon for any other purpose. The suitability or applicability of this Report for any purpose other than that mentioned above has not been verified by the Valuer.

3.3 Source of Information

- 3.3.1 For the purpose of this valuation exercise, I have relied on the following sources of information:
- i. Brief note on the operations of Pipeline Business;
 - ii. Tariff order for determination of Final Initial Unit Natural Gas Pipeline Tariff by PNGRB dated March 12, 2019;
 - iii. Provisional Financial statements of Pipeline Infrastructure Limited for the year ended March 31, 2019;
 - iv. Framework Agreement amongst RIHPL and the Sponsor and the IM and PIL dated August 28, 2018;
 - v. Scheme of Arrangement between EWPL and PIL and their Respective Shareholders and Creditors for transfer of Pipeline Business from EWPL to PIL;



- vi. Joint Venture Agreement dated February 11, 2019, entered into between the Project Manager, RIL and the Contractor and First Amendment Agreement dated April 22, 2019 to the Joint Venture Agreement;
- vii. PIL SHA dated February 11, 2019 amongst PIL, EWPL, IM, Trust and RIL and First Amendment Agreement dated March 9, 2019 to the PIL SHA and Second Amendment Agreement dated April 22, 2019 to the PIL SHA;
- viii. SPA dated February 11, 2019 amongst RIHPL, Trust, IM and PIL and Amendment Agreement dated April 22, 2019 to SPA;
- ix. SSA dated February 11, 2019 amongst PIL, RIIHL, and Trust;
- x. O&M Agreement dated February 11, 2019 amongst PIL, Contractor and Project Manager;
- xi. O&M Sub-Contract Agreement dated February 11, 2019 amongst PIL, Contractor, Sub-Contractor;
- xii. PUA executed between PIL and RIL on March 19, 2019 and Amendment Agreement dated April 22, 2019 to the PUA;
- xiii. Shared Service Agreement February 11, 2019 amongst PIL, RIL and the Contractor and First Amendment Agreement dated April 22, 2019 to the Shared Service Agreement;
- xiv. Infrastructure Sharing Agreement dated February 11, 2019 between Contractor, Sub-Contractor and PIL;
- xv. Copy of Orders approving the Scheme of Arrangement by the National Company Law Tribunal, Bench at Ahmedabad and the National Company Law Tribunal, Bench at Mumbai vide orders dated November 12, 2018 and on December 21, 2018, respectively;
- xvi. EWPL Due Diligence Abridged Report for Disclosure in Private Placement Memorandum issued by Wood Mackenzie dated December 21, 2018 ("**Wood Mackenzie Report**")
- xvii. Physical Inspection with respect to the Pipeline as required under Regulation 21(2) of SEBI InvIT Regulations;
- xviii. Projected revenue expenditure and capital expenditure for operations of PIL for a period of -20 years from April 1, 2019;
- xix. Estimates of working capital of PIL for a period of -20 years from April 1, 2019;
- xx. List of one-time sanctions/approvals which are obtained or pending in relation to the Pipeline and list of up to date/ overdue periodic clearances in relation to the Pipeline;
- xxi. Details of material litigations in connection with the Pipeline;
- xxii. FICCI Report titled "India Gas Infrastructure: Strategies to accelerate to a Gas based Economy" dated October 4, 2017 prepared by FICCI's knowledge partner Cerate Business Consulting LLP ("**FICCI Report**").
- xxiii. PNGRB report by industry group titled "Vision 2030 - Natural Gas Infrastructure in India Report", available at <http://www.pngrb.gov.in/Hindi-Website/pdf/vision-NGPV-2030-06092013.pdf> ("**PNGRB Report**").
- xxiv. Other relevant data and information provided to me by the Management whether in oral or physical form or in soft copy, and discussions with their representatives; and
Information available in public domain and provided by leading database sources.



4 Exclusions and Limitations

4.1 Restricted Audience:

- 4.1.1 This Report and the information contained herein are absolutely confidential and are intended for the use of the IM and the Trust in connection with the Purpose set out in the Report.
- 4.1.2 It should not be copied, disclosed, circulated, quoted or referred to, either in whole or in part, in correspondence or in discussion with any other person except to whom it is issued without my written consent. It can however be relied upon and disclosed in connection with any statutory and regulatory filing with SEBI, BSE Limited or any other regulatory /statutory authority as per the SEBI InvIT Regulations without any consent in connection with the Purpose mentioned earlier. This Report and the extracts of this Report included herein can be reproduced and used for filings with SEBI, BSE and any other statutory authority as required by the law. In the event the IM or the Trust extend the use of the Report beyond the purpose mentioned earlier in the Report, with or without my consent, I will not accept any responsibility to any other party (including but not limited to the investors, if any) to whom this Report may be shown or who may acquire a copy of the Report.
- 4.1.3 It is clarified that this Report is not a fairness opinion under any of the stock exchange / listing regulations. In case of any third party having access to this Report, please note that this Report is not a substitute for the third party's own due diligence / appraisal / enquiries / independent advice that the third party should undertake for its purpose.

4.2 Limitation Clause:

- 4.2.1 The Report is subject to the limitations detailed hereinafter. This Report is to be read in totality, and not in parts, in conjunction with the relevant documents referred to therein.
- 4.2.2 The scope of the assignment did not include performing audit tests for the purpose of expressing an opinion on the fairness or accuracy of any financial or analytical information that was used during the course of the work. Further, conducting a financial or technical feasibility study was also not covered.
- 4.2.3 During the course of this work, I have relied upon assumptions and projections as provided by Management. These assumptions require exercise of judgment and are subject to uncertainties.
- 4.2.4 Further, this Report is based on the extant regulatory environment and the financial, economic, monetary and business/market conditions, and the information made available to me or used by me up to, the date hereof, which are dynamic in nature and may change in future, thereby impacting the valuation of InvIT Asset. Subsequent developments in the aforementioned conditions may affect this Report and the assumptions made in preparing this Report and I shall not be obliged to update, review or reaffirm this Report if the information provided to me changes. The information presented in this valuation Report does not reflect the outcome of any due diligence procedures, which may change the information contained herein and, therefore, the valuation Report materially.
- 4.2.5 Valuation is not a precise science and the conclusions arrived at in many cases will of necessity be subjective and dependent on the exercise of individual judgment as the valuation analysis is governed by the concept of materiality. There is therefore no indisputable single value. While I have provided an assessment of the value based on an analysis of information available



to me and within the scope of my engagement, others may place a different value on the businesses.

- 4.2.6 Valuation is based on estimates of future financial performance or opinions, which represent reasonable expectations at a particular point in time, but such information, estimates or opinions are not offered as predictions or as assurances that a particular level of income or profit will be achieved, a particular event will occur or that a particular price will be offered or accepted. Actual results achieved during the period covered by the prospective financial analysis will vary from these estimates and the variations may be material.
- 4.2.7 The realization of these projections is dependent on the continuing validity of the assumptions on which they are based. Since the projections relate to the future, actual results are likely to be different from the projected results in case of events and circumstances not occurring as projected and the differences may be material. The Valuer's work did not constitute a validation of the financial projections of the InvIT Asset under consideration and accordingly, the Valuer does not express any opinion on the same. The Valuer has not commented on the appropriateness of or independently verified the assumptions or information provided to me, for arriving at the financial projections. Further, while the Valuer has discussed the assumptions and projections with the Management, my reliance on them for the purpose of valuation should not be construed as an assurance about the accuracy of the assumptions or the achievability of the financial projections.
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- 4.2.8 This Report is based on information received from sources mentioned herein and discussions with the Management. I have assumed that the parties involved have furnished to me all information, which they are aware of concerning the financial statements and respective liabilities, which may have an impact on my Report.
- 4.2.9 I have not done any independent technical valuation or appraisal or due diligence of the assets or liabilities of the Trust or PIL or any of other entity mentioned in this Report and have considered them at the value as disclosed by the Trust and PIL in their regulatory filings or in submissions, oral or written, made to me. Nothing has come to my knowledge to indicate that the material provided to me was misstated or incorrect or would not afford reasonable grounds upon which to base my Report.
- 4.2.10 I have not made any independent verification with respect to the PIL's claim to title of assets or property (including the Pipeline) for the purpose of this valuation. With respect to claim to title of assets or property I have solely relied on representations, whether verbal or otherwise, made by the Management to me for the purpose of this Report.
- 4.2.11 Except to the extent required under the SEBI InvIT Regulations, I am not responsible for matters of legal nature including issues of legal title and compliance with local laws in respect of PIL and also no consideration has been given to litigation and other contingent liabilities that are not recorded in the financial of PIL.
- 4.2.12 The fee for the Report is not contingent upon the outcome of the Report.
- 4.2.13 This Report does not look into the business / commercial reasons behind any transaction nor the likely benefits arising out of the same. Similarly, it does not address the relative merits of investing in InvIT as compared with any other alternative business transaction, or other alternatives, or whether or not such alternatives could be achieved or are available. The assessment of commercial and investment merits of the Trust are sole responsibility of the



investors of the Trust and I do not express any opinion on the suitability or otherwise of entering into any financial or other transactions with the Investment Manager, the Trust or PIL.

- 4.2.14 In rendering this Report, I have not provided any legal, regulatory, tax, accounting, actuarial advice and accordingly I do not assume any responsibility or liability in respect thereof.
- 4.2.15 For the present valuation exercise, I have also relied upon information available in the public domain; however, the accuracy and timeliness of the same has not been independently verified by me.
- 4.2.16 In the particular circumstances of this case, I shall be liable only to the IM and the Trust. I shall have no liability (in contract or under statute or otherwise) to any other party for any economic loss or damage arising out of or in connection with this engagement, however the loss or damage is caused, as laid out in the engagement letter, for such valuation work.
- 4.2.17 Whilst, all reasonable care has been taken to ensure that facts stated in the Report are accurate and opinions given are fair and reasonable, neither me, nor any of my team members shall in any way be responsible for the contents stated herein. Accordingly, I make no representation or warranty, express or implied, in respect of the completeness, authenticity or accuracy of such statements. I expressly disclaim any and all liabilities, which may arise based upon the information used in this Report.
- 4.2.18 The estimate of value contained herein are not intended to represent value of the InvIT Asset at any time other than the dates specifically mentioned for each valuation result, as per the agreed scope of engagement and as required under the SEBI InvIT Regulations.
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5 Assignment Approach

The overall approach that I have followed to arrive at value of InvIT Asset is summarized below:

- i. In the initial stage, I submitted detailed information checklist for valuation of InvIT Asset.
- ii. I reviewed the information provided as per the checklist for initial understanding of the business and then had a preliminary discussion with the Management to gain insight on the business operations and brief background of the Pipeline Business.
- iii. Site visit was conducted of:
 - Pipeline operation centre in Kakinada, Andhra Pradesh; and
 - Compressor Station (CS - 1) situated near Kakinada, Andhra Pradesh.
- iv. I analyzed the additional information and business model received post preliminary discussion and site visit. I had various discussions with the Management on the business model, assumptions considered and future business outlook. I also reviewed the Wood Mackenzie Report.
- v. I obtained various disclosures from the Management pertaining to approvals and litigations of the InvIT Asset as required under the SEBI InvIT Regulations.
- vi. I carried out the valuation based on internationally accepted valuation methodology, applicable Valuation Standard issued by ICAI and considering the information provided to me.

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6 Overview of Pipeline Business

6.1 Pipeline

- 6.1.1 The Pipeline is a cross country, natural gas pipeline with a pipeline length of ~1,480 kms (including dedicated lines) together with compressor stations and operation centres that stretches from Kakinada (Andhra Pradesh) to Bharuch (Gujarat) traversing through the states of Andhra Pradesh, Telangana, Karnataka, Maharashtra and Gujarat.
- 6.1.2 The Pipeline comprises of trunk pipeline, compressor stations, mainline sectionalizing valve stations, tap-off stations, spur lines, metering and regulating stations and pipeline operation centres.
- 6.1.3 Total 37 Mainline Sectionalizing Valve (“MLV”) stations are installed along the Pipeline route so as to allow isolation of a section of Pipeline in event of an emergency and/or repairs.
- 6.1.4 There are 11 Compressor Stations (“CS”) installed en-route the Pipeline to receive gas supplies at On-shore Terminal (“OT”), boost pressure along the way and to deliver the gas at required pressure to the downstream pipelines.
- 6.1.5 The CS houses the facilities like gas turbine compressors, gas engine generators, gas after coolers, pigging receiver and launchers, electrical sub-station and other utilities like diesel generators, firefighting equipment and storage etc.
- 6.1.6 The Pipeline has interconnects for receipt and delivery of gas connecting to source and other cross-country pipelines such as DVPL / DUPL / GSPL-HP & KG Basin networks. Metering and regulating stations are located at these inter-connects and at customer locations. Tap-offs are also provided for new connections at regular intervals.
- 6.1.7 For managing the operations of the pipeline, main operation centre is located at Gadimoga, Andhra Pradesh and backup operations centre is located at Reliance Corporate Park in Navi Mumbai, Maharashtra. Local Control Centre has been provided at every Compressor Stations en-route the pipeline. Maintenance bases along with warehouse facilities have been set up at CS-03 and CS-08 apart from first level maintenance facilities provided at each of the compressor station en-route the pipeline.
- 6.1.8 Gas accounting for the pipeline is done in energy terms (i.e. gross heating value - GHV).

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6.2 Route Map of the Pipeline



6.2.1 Above map reflects the route map of the Pipeline.

6.2.2 There are 11 Compressor Stations along the Pipeline as highlighted in the map above.

6.2.3 Currently there are 4 Receipt/ Gas Intake Points and 10 Delivery / Interconnects in the Pipeline which spreads across the states of Andhra Pradesh, Telangana, Karnataka, Maharashtra and Gujarat.

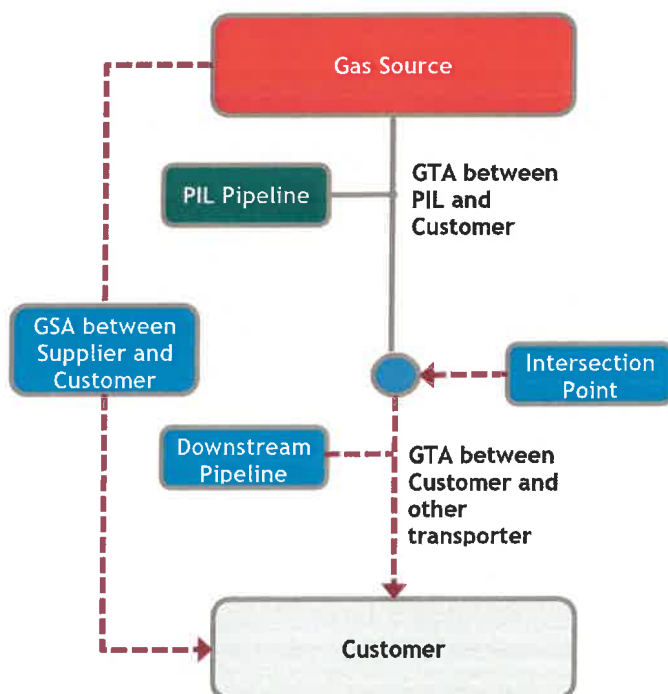
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6.3 Business Model

- 6.3.1 The Company provides transportation services to customers for transportation of gas from any particular entry point (i.e. source/ upstream pipeline) to any exit point (i.e. customer point/downstream pipeline).
- 6.3.2 The Pipeline usage capacity is booked by the customers for which a Gas Transportation Agreement (“GTA”) is entered.
- 6.3.3 The key terms included in the GTA are as follows:

Sr. No.	Particulars	Key Terms of GTA
I	Tariff	- Tariff Rate in INR/mmbtu as approved by PNGRB
II	Terms	- As mutually agreed between parties
III	Ship or Pay	- Monthly 90% of Maximum Delivery Quantity (MDQ) level
IV	Payment Terms	- Fortnightly invoicing - Payments within 4 days of invoice - Disputed amount will be paid in full, pending dispute settlement
V	Payment Security	- Shipper shall provide LC covering 30xMDQx(Tariff + Taxes)
VI	PIL Liability Cap	- 50% of annual transportation charges
VII	Planned Maintenance	- Without liability for ship or pay and liquidated damages - Total of 10 days annually each for transporter



- 6.3.4 Deferred delivery services are also provided wherein the customer can request for temporary storage space in the Pipeline for a service charge.



6.3.5 PNGRB is a nodal agency to regulate and monitor the downstream activities, notify regulations and monitor compliance. It is also responsible for granting authorization to build and operate pipelines and city gas distribution networks.

6.3.6 The regulations mandate that at least 25% of capacity should be available on a common carrier first cum first serve basis. Therefore upto 75% of the capacity can be contracted.

6.4 Tariff Determination as per Tariff Regulations

6.4.1 PNGRB has been authorized to regulate the tariff for transportation of gas based on the tariff submitted by the transporters and the regulations prescribed for such determination.

6.4.2 The tariff for gas transportation is divided into various zones of 300 km along the route of the natural gas pipeline from the point of entry till the point of exit as per the contract.

6.4.3 Initially a levelized tariff is determined for transportation through the entire gas pipeline post which the zonal tariffs are determined based on estimated volumes for various zones.

6.4.4 No subsequent tariff adjustment is allowed on account of variation in actual zonal volumes vis-a-vis the estimated zonal volumes.

6.4.5 The key factors considered while determination of tariff are as follows:

Sr. No.	Factors	Stipulations
I	Economic Life	- 25 years
II	Tariff Method	- DCF, ROCE @ 12% post tax
III	Capex & Opex	- Lower of Normative/Actual
IV	Working Capital	- 30 days opex and 18 days receivables
V	System Use Gas	- (Gas price + tariff) x quantity
VI	Volume for Tariff Fixation	- Higher of Normative or Actual
		- Normative Volumes are determined as under -
		I -V years : 60%, 70%, 80%, 90%, 100% of 75% of Capacity
		Year VI Onwards: 75% of Capacity or firm contracted volumes
		whichever is higher
		- Volume Adjustment in first five years is permitted
VII	Capacity	- As determined by PNGRB under relevant guidelines
VIII	Tariff Overview	- Initial tariff fixed for first year
		- First regular tariff for next five years
		- Subsequently fixed and reviewed every five years

6.5 List of one-time sanctions/approvals which are obtained or pending in relation to the Pipeline and list of up to date/ overdue periodic clearances:

6.5.1 Disclosed in Annexure III of the Report as per information provided by the Management. I have reviewed the validity of various sanctions/ approvals/ clearances obtained with the documents provided to me by the Management.



6.6 Material Litigations/ Factors related to the Pipeline

6.6.1 I have been informed by the Management about the material litigations with respect to the Pipeline, I have not independently reviewed the litigations details. As per the Scheme for transfer of Pipeline from EWPL to PIL, the liabilities in relation to the Pipeline are also transferred from EWPL to PIL. Hence, I have disclosed the litigation related to the Pipeline as per information provided to me by the Management.

6.6.2 The details of the key litigations which may have bearing on the valuation have been disclosed below and disclosure of other litigations as required under SEBI InvIT Regulations have been provided in Annexure IV.

6.6.3 Litigation related to Capacity Assessment

- PNGRB vide letter dated July 10, 2014 declared the final capacity for FY11 and FY12 as 85 mmscmd and 95 mmscmd respectively (“Order I”).
- EWPL filed an appeal on August 8, 2014 against the Order I before the APTEL.
- APTEL passed an order on July 8, 2016 setting aside Order I *inter alia* on the ground that there was a breach of principles of natural justice and remanded the matter back to PNGRB.
- Subsequently, PNGRB vide its order dated December 30, 2016 declared capacity of Pipeline to be 85 mmscmd and 95 mmscmd for FY11 and FY12 respectively (“Order II”).
- EWPL filed an appeal before the APTEL for setting aside Order II, directing PNGRB to declare the capacity for FY11 and FY12, and for the subsequent periods i.e. FY13 to FY16, taking into account the change in parameters, within a reasonable time.
- Pending decision of the appeal, EWPL moved an interim application before APTEL for determining the capacity of EWPL as per Acceptance to the Authorization letter issued by PNGRB, as per Determination of Natural Gas Pipeline Tariff Regulations - Amendment 2015. APTEL, pending adjudication of the capacity appeal, vide order dated November 20, 2018 directed PNGRB to consider the capacity of EWPL as 85 MMSCMD for the years 2009 to 2018. The matter is currently pending.
- PNGRB declared final tariff on March 12, 2019 i.e. INR 71.66/MMBtu. Zonal apportionment of tariff has been to submitted PNGRB on March 20, 2019.

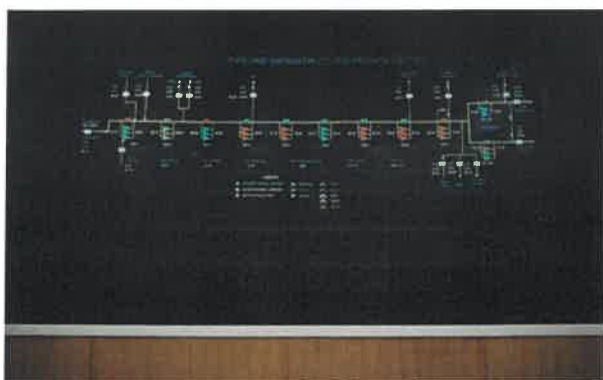
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6.7 Site Visit Details

6.7.1 My team has visited the Operations Centre and Gas Compressor Station No. 1 (CS - 1) located at Kakinada, Andhra Pradesh on May 3, 2019 for undertaking physical inspection of the Pipeline as required under the SEBI InvIT Regulations.

Pipeline Operation Centre - Control Room Panel



CS - 1 Compressor Station



CS - 1 Gas After Cooler



CS - 1 Scrubber



6.8 Other disclosures as required under the SEBI InvIT Regulations have been provided in Annexure V of the Report.

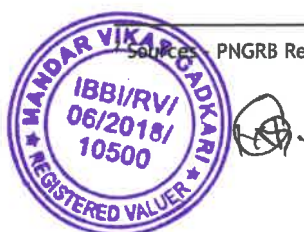


7 Industry Overview²

7.1 Introduction

- 7.1.1 Energy availability is key to economic growth and consequently high economic growth would lead to an increase in India's energy consumption. India's primary energy mix is set to alter due to the substitution of oil by natural gas. The share of natural gas in the energy mix is expected to increase to 20% in 2025 from 11% in 2010. Based on the plans for expansion of natural gas supply, which are supported by additional regasification capacity being added at existing and upcoming LNG terminals, the nationwide transmission pipeline network and transnational pipelines, it is expected that the share of natural gas in the primary energy mix would reach 20% by 2030. However, to achieve a 20% share in the primary energy mix, the natural gas market is required to attract and sustain investments in gas infrastructure which includes the cross-country pipelines.
- 7.1.2 Historically, natural gas was significantly cheaper than alternate fuels like motor spirit, naphtha, diesel and low sulphur heavy stock ("LSHS") / furnace oil ("FO"). Although the price of natural gas is increasing (especially of imported gas), newer technology and larger plants have made it possible to ensure efficiency and economies of scale, enabling an increase in the usage of natural gas. As such, natural gas has become the preferred fuel for fertilizers, petrochemicals and, increasingly, the power generation sector. Further, planned investments in power, fertilizer, petrochemical and other areas including city gas distribution suggest a sustained increase in India's level of natural gas consumption.
- 7.1.3 During the 2000 to 2004 period, India's gas market witnessed gas discoveries in the Krishna Godavari Basin ("KG Basin"), the setting up of the liquefied natural gas ("LNG") re-gasification terminal and the commencement of LNG supply and successful execution/roll out of city gas distribution projects. These developments had a positive impact on the environment and led to plans to set up a regulator due to the emergence of gas economy and related infrastructure development. During the 2004 to 2011 period, India witnessed the beginning of the gas era, with successful commencement and operation of LNG terminal, expansion of the transmission pipeline network in the north-western corridor and the new network in the east-west corridor, setting up of the regulator, the Petroleum and Natural Gas Regulatory Board ("PNGRB"), and the authorization of new pipelines and geographical areas ("GA"s) for the city gas distribution ("CGD") network, an increase in gas production from the KG Basin and increased supply of gas to many end use sectors. During this period, the government announced a Gas Allocation Policy prescribing sector-wise allocation for gas being produced from the KG Basin. The following period, 2011 to 2015, witnessed an unprecedented decline of gas production from the KG Basin, from approximately 60 million metric standard cubic meter per day ("MMSCMD") to approximately 10 MMSCMD. Gas production forecasts from other fields/discoveries in the KG Basin also failed to materialize. With declining gas production from the traditional fields of the Oil and Natural Gas Corporation ("ONGC"), India witnessed a continuous decline period in gas production for five years and the government decided to not pursue any new gas based power projects, due to stranded power projects of approximately 14,000 megawatts ("MW"). The current government is trying to reduce the uncertainty in the gas market by announcing policies to attract investments and increase production.

Sources: PNGRB Report, FICCI Report, Snapshot of India's Oil & Gas Data - Dec 2018 on www.ppac.gov.in



7.2 Demand and Supply

7.2.1 The Natural Gas pipeline business and over all Natural Gas related business are inter-dependent, i.e. pipeline provides important connectivity to the suppliers and consumers and without adequate Natural Gas requirement and supply, the pipeline business will not be feasible. Hence, it becomes very much important to analyze demand and supply situation of over all Natural Gas industry.

7.2.2 Supply Side Scenario

In the past, various supply projections have consistently fallen short of their target due to:

- the declining production from the prospective KG Dhirubhai 6 (“D6”) fields;
- the declining production from traditional producing fields; and
- a lack of supply caused by the announcement of new finds from the KG Basin.

Following sets forth the historical and forecasted trend of India’s natural gas supply -

Details	Financial Year		December			April to December		
	2017	2018	2018	2019 (Target)	2019 (Projected)	2018	2019 (Target)	2019 (Projected)
a) Gross Production	31,897	32,648	2,751	3,011	2,867	24,688	26,580	24,650
ONGC	22,088	23,429	2,001	2,247	2,197	17,651	19,434	18,416
Oil India Limited	2,937	2,881	237	262	233	2,197	2,388	2,061
Private/ Joint Ventures	6,872	6,338	514	502	437	4,839	4,758	4,173
b) Net Availability (excluding flare gas and loss)	30,848	31,731	2,673	-	2,795	24,008	-	24,048
c) LNG import	24,686	26,328	2,031	-	2,128	19,229	-	20,717
d) Total consumption including internal consumption (b+c)	55,534	58,059	4,705	-	4,923	43,246	-	44,766
e) Total consumption (in BCM)	55.5	58.1	4.7	-	4.9	43.2	-	44.8

The following table sets forth the domestic gas supply forecast, from financial year 2016 to financial year 2020:

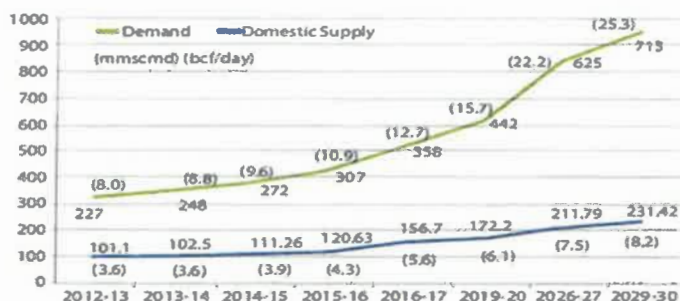
Details	September				
	2016 (Actual)	2017	2018	2019	2020
Industry Forecast 1		100.3	96.6	99.3	111.0
Industry Forecast 2		102.0	114.0	131.0	158.0
Ministry of Petroleum and Natural Gas Plan		97.4	106.3	138.3	152.0
Gas Supply Forecast (Average)	85.0	99.9	105.6	122.9	140.3

In the near term as per the definite plan, gas supply is expected to increase by approximately 60% to 70% from the current levels. The government is expected to increase the share of natural gas in the energy mix from the current 6% - 7% to 15% in the next five years.

7.2.3 Demand Side Scenario

While India's gas demand is higher than its total gas supply (domestic and imported), the various sectors of demand for gas have different demand dynamics and sensitivity to prices. According to the ‘Vision 2030’ document prepared by the PNGRB in May 2013, the supply and demand gap has been huge in the gas sector, in spite of the optimistic supply forecast made at that time.





The fertilizer and power sectors lead sectoral gas consumption, with a combined share of approximately 57%. Approximately four to five years ago, the two sectors had combined share of approximately 70%, led by the power sectors having an approximate 40% share. During the intervening period, the share of the power sector declined due to a decrease in production which caused a halt in the allocation of KG D6 gas to the sector. The fertilizer sector maintained its share due to the sector retaining its priority sector allocation. High priced LNG has never been an option for the power sector causing its share to decline along with the decline in domestic supply. Over 14,000 MW of new gas based power plants were stranded due to a lack of domestic gas supply.

Delivered Cost Range	Consumption Sectors	Estimated Demand Composition %
USD 10 to 14	Liquefied Petroleum Gas, Refinery - Feedstock, Petrochemicals, Diesel Back-up Power and Peak Power	40 - 45%
USD 7.5 to 10	Fertilizer, CGD, Industrial / Commercial	40 - 45%
USD 5.5 to 7.5	CGD - Transport / Domestic, Refinery Fuel, Industry Fuel	55 - 60%
Less than USD 5.5	Base Power	55 - 60%

7.3 Future Outlook of Natural Gas

7.3.1 The power sector is limiting its LNG usage due to the base power being highly sensitive to gas price. Any gas that priced over USD 5.5 / one million British thermal units (“mmbtu”) makes it challenging for gas based power to compete with coal based power. With renewable power prices also decreasing in recent years, the competitiveness of gas based power faces a challenge and therefore, a specifically focused strategy on the power sector to make gas usage viable or acceptable is required. As per the affordability matrix, the effective demand is estimated to be in the range of 45% to 55% of the generally projected unconstrained demand.



7.3.2 The following table sets forth the domestic natural gas price and gas price ceiling (gross calorific value basis):

Period	Domestic Natural Gas price (USD/mmbtu)	Gas price ceiling (USD/mmbtu)
November 2014 - March 2015	5.05	-
April 2015 - September 2015	4.66	-
October 2015 - March 2016	3.82	-
April 2016 - September 2016	3.06	6.61
October 2016 - March 2017	2.5	5.3
April 2017 - September 2017	2.48	5.56
October 2017 - March 2018	2.89	6.3
April 2018 - September 2018	3.06	6.78
October 2018 - March 2019	3.36	7.67

7.4 India's Gas Transmission Infrastructure

7.4.1 India's gas transmission infrastructure has been growing since the completion of the first long term LNG deal in late 1990s and the supply of gas from new sources during the 2001 to 2010 period. Additional arterial pipeline network on the Hazira- Vijaipur - Jagdishpur corridor and the east-west corridor and the regional network in the Mumbai and Gujarat regions provided the necessary impetus to growth. The CGD infrastructure also grew along with these corridors and regions. The decline in domestic production and the challenges of using high priced LNG caused pipeline utilization to decrease.

7.4.2 The following table sets forth an overview of India's gas pipeline infrastructure :

Pipeline Owner	Length (Km)	Percentage Share
GAIL	11,077.0	68.6%
EWPL (Formerly RGTIL)	1,480.0	9.2%
GSPL	2,612.0	16.2%
Assam Gas Company Limited / Oil India Limited/ Duliajan Numaligarh Pipeline Limited	817.0	5.1%
Indian Oil Corporation Limited	140.0	0.9%
ONGC	24.0	0.2%
Total	16,150.0	100.0%

7.4.3 In the transmission pipeline segment, one of major enablers of growth and capacity utilization, besides regular access to multiple sources of gas and demand centres across the network, is the government's policy and regulation. Regulations are expected to provide a fair and level playing field for operators while ensuring that the customers get a regular supply at reasonable prices. Consecutively, the regulation must facilitate the investment and expansion of the network by serious players, while keeping economic viability in view. When such growth enablers are stifled, it has a direct impact on pipeline capacity creation and utilization. This issue is brought out by the low capacity utilization of the existing pipeline network.



- 7.4.4 India has, in the past and currently, been evaluating a number of options of gas supply through transnational pipelines, such as the Turkmenistan - Afghanistan - Pakistan - India Pipeline (“TAPI”), the Iran - Pakistan - India Pipeline (“IPI”), the Iran - India Pipeline (with Oman Link) and the Russia - India Pipeline through Iran / Middle East.
- 7.4.5 For TAPI, though GSPA was signed four years ago, the commercial terms are not frozen. Of late, TAPI has been going through security concerns due to its passage through Pakistan. The IPI has been formally shelved by the government due to security considerations. The Russia - India Pipeline, pre-feasibility, presented technical and commercial challenges in terms of the higher price of gas; however, routing through the Middle East is currently being considered. The Iran - India Pipeline has been found to be the most technically and economically viable alternative. India has taken a stand on bilateral relations with Iran, that certain of its strategic investments in the upstream - Farzad B Block and port and logistics have to be honored by Iran along with the adherence to principles of peace in the region.
- 7.4.6 Given the challenges faced by the LNG terminal investors in tying up demand for LNG in India, the transnational pipelines are expected to face major challenges due to the investment involved and the price and market competition faced by them in the Indian gas markets.

Network/ Region	Entity	Length Sanctioned (KM)	Design Capacity (MMSCMD)	Pipeline Size
Kochi- Kottanad-Bengaluru- Mangalore	GAIL (India) Ltd	1,056	16	24”/18”/12”
Dabhol - Bengaluru (DBPL) Spur Lines, Phase-2	GAIL (India) Ltd	302	16	36”/30”/24”/18”
Jagdishpur- Haldia-Bokaro- Dhamra (JHBDPL)	GAIL (India) Ltd	2,539	16	30”/24”/18”/12”/8”/4”
Mallavaram- Bhopal - Bhilwara-Vijaipur	GSPL India Transco Ltd	1,881	78.25	42”/36”/30”/24”/18”/12”
Mehsana - Bathinda	GSPL India Gasnet Ltd	2,052	77.1	36”/24”/18”/12”
Bathinda - Jammu - Srinagar	GSPL India Gasnet Ltd	725	42.4	24”/18”/16”/12”/8”/6”
Kakinada - Vizag - Srikakulam	AP Gas Distribution Co.	391	90	24”/18”/8”/4”
Ennore - Nellore	Gas Transmission India Pvt. Limited	250	36	24”/18”
Ennore-Thiruvallur- Bengaluru-Puducherry- Nagapattinam-Madurai- Tuticorin	Indian Oil Corporation Limited	1,385	84.7	28”/24”/16”/12”/10”
Jaigarh-Mangalore	H-Energy Pvt. Ltd	635	17	24”
Total		11,216		



8 Valuation Approach

The present valuation exercise is being undertaken to arrive at enterprise value of InvIT Asset for the purpose as mentioned above in the Report

There are three generally accepted approaches to valuation:

- i. “Cost” Approach
- ii. “Income” Approach
- iii. “Market” Approach

Within these three basic approaches, several methods may be used to estimate the value. An overview of these approaches is as follows:

8.1 Cost Approach

8.1.1 The cost approach values the underlying assets of the business to determine the business value of the InvIT Asset. This valuation method carries more weight with respect to holding companies than operating companies. Also, asset value approaches are more relevant to the extent that a significant portion of the assets are of a nature that could be liquidated readily if so desired.

i. Net Asset Value Method

- The Net Asset Value (“NAV”) method under cost approach, consider the assets and liabilities, including intangible assets and contingent liabilities. The net assets, after reducing the dues to the preference shareholders, if any, represent the value of the company.
- NAV method is appropriate in a case where the major strength of the business is its asset base rather than its capacity or potential to earn profits.
- This valuation approach is mainly used in cases where the asset base dominates earnings capability.
- As an indicator of the total value of the entity, the net asset value method has the disadvantage of only considering the status of the business at one point in time.
- Additionally, net asset value does not consider the earning capacity of the business or any intangible assets that have no historical cost. In many respects, net asset value represents the minimum benchmark value of an operating business.

ii. Break Up Value Method

- Under the Break Up Value (“BV”) method, the assets and liabilities are considered at their realizable (market) values including intangible assets and contingent liabilities, if any, which are not stated in the balance sheet. From the realizable value of the assets, the payable value of all liabilities (existing plus potential) are deducted to arrive at the BV of the company.
- This Valuation approach is mostly used in case of companies where there are huge operating investments or surplus marketable investments.



8.2 Income Approach

8.2.1 The Income approach focuses on the income prospects of a company.

i. Discounted Cash Flow Method

- Under the Discounted Cash Flow (“DCF”) method, the value of the undertaking is based on expected 'cash flows for future, discounted at a rate, which reflects the expected returns and the risks associated with the cash flows as against its accounting profits. The value of the undertaking is determined as the present value of its future free cash flows.
- Free cash flows are discounted for the explicit forecast period and the perpetuity value thereafter. Free cash flows represent the cash available for distribution to both, the owners and creditors of the business.
- Discount rate is the Weighted Average Cost of Capital (“WACC”), based on an optimal vis-à-vis actual capital structure. It is appropriate rate of discount to calculate the present value of future cash flows as it considers equity-debt risk and also debt-equity ratio of the firm.
- The perpetuity (terminal) value is calculated based on the business’s potential for further growth beyond the explicit forecast period. The “constant growth model” is applied, which implies an expected constant level of growth (for perpetuity) in the cash flows over the last year of the forecast period.
- The discounting factor (rate of discounting the future cash flows) reflects not only the time value of money, but also the risk associated with the business’s future operations.
- The Business/Enterprise Value so derived, is further reduced by value of debt, if any, (net of cash and cash equivalents) to arrive at value to the owners of business. The surplus assets / non-operating assets are also adjusted.
- In case of free cash flows to equity, the cash available for distribution to owners of the business is discounted at the Cost of Equity and the value so arrived is the Equity Value before surplus/ non-operating assets. The surplus assets / non-operating assets are further added to arrive at the Equity Value.

8.3 Market Approach

i. Market Price Method

- Under this approach, the market price of an equity share as quoted on a recognized stock exchange is normally considered as the fair value of the equity shares of that company where such quotations are arising from the shares being regularly and freely traded. The market value generally reflects the investors’ perception about the true worth of the company.

ii. Comparable Companies Multiple Method

- Under the Comparable Companies Multiple (“CCM”) method, the value is determined on the basis of multiples derived from valuations of comparable companies, as manifest through stock market valuations of listed companies. This valuation is based on the principle that market valuations, taking place between informed buyers and informed sellers, incorporate all factors relevant to valuation. Relevant multiples need to be chosen carefully and adjusted for differences between the circumstances.



- To the value of the business so arrived, adjustments need to be made for the value of contingent assets/liabilities, surplus Asset and dues payable to preference shareholders, if any, in order to arrive at the value for equity shareholders.

iii. **Comparable Transactions Multiple Method**

- Under the Comparable Transactions Multiple (“CTM”), the value of a company can be estimated by analysing the prices paid by purchasers of similar companies under similar circumstances. This is a valuation method where one will be comparing recent market transactions in order to gauge current valuation of target company.

8.4 Conclusion on Valuation Approach

Sr. No.	Valuation Approach	Valuation Methodology	Used	Explanation
I	Cost Approach	- Net Asset Value & Break Up Value	No	NAV does not capture the future earning potential of the business.
II	Income Approach	- Discounted Cash Flow	Yes	The project under the Company derives its true value from the potential to earn income in the future. Hence, I have considered DCF method under Income Approach for Valuation.
III	Market Approach	- Market Price	No	The Company is not listed on any stock exchange, therefore I have not considered market price method of valuation.
		- Comparable Companies	No	There are no listed companies directly comparable to the business of the InvIT Asset considering the nature of operations, capital structure and the type of asset held. Hence, I have not considered CCM method.
		- Comparable Transactions	No	Due to unavailability of transactions in the public domain with business and characteristics similar to the Company.

- Accordingly, in the instant case, the Discounted Cash Flow Method was considered as the most appropriate method for valuation of the InvIT Asset. Under the DCF method, I have used Free Cash Flow to Equity (“FCFE”) model for valuation.

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9 Valuation of InvIT Asset

9.1 Key Factors Impacting Valuation

9.1.1 The business of the Company is natural gas transportation, hence natural gas volumes transported and tariff of the gas are the main value drivers for the business.

9.1.2 For assessing the volumes to be transported through the Pipeline I have relied on technical report provided by Wood Mackenzie. Wood Mackenzie is a global energy, chemicals, renewables, metals and mining research and consultancy group. Wood Mackenzie was engaged by an affiliate of the Sponsor in connection with Commercial Due Diligence of the Pipeline.

The second major factor is Tariff for gas transportation, which is fixed by PNGRB and revised every five years. The tariff rate is fixed on the basis of future estimated volumes and total expenditure to be incurred by the firm in 25 years since commercial operations. Current tariff is INR 71.66/mmbtu as determined by PNGRB vide its order dated March 12, 2019 which has been considered for the 20 years period.

9.2 DCF Method:

9.2.1 The value of the InvIT Asset is based on the cash flow of PIL.

9.2.2 The provisional balance sheet position of PIL as on March 31, 2019 has been considered as the opening balance sheet of PIL for the purpose of valuation.

9.2.3 The financial projections as provided by the IM for a period of 20 years from April 1, 2019 has been considered for valuation.

9.2.4 Following are the key assumptions considered in the financial projections while determining the operating cash flows of PIL:

i. Volumes:

- The gas transportation volume is based on the Wood Mackenzie Report dated December 21, 2018 provided by IM to estimate the production of natural gas that could be transported through the Pipeline.
- The primary source of production of natural gas considered in the Wood Mackenzie Report is from the KG basin from discovered resources. Additionally, the Wood Mackenzie Report also provides estimates of production volumes from yet to find resource. I have considered 100% of production volumes estimated from discovered resources and 50% of production volumes estimated from yet to find resources for the volume projections of gas transportation through the Pipeline based on the assumption that once production from existing and upcoming fields goes down, there would be new gas explorations in Krishna Godavari Dhirubhai 6, ONGC, etc. fields in the east coast of India.

ii. Tariff for Gas Transportation:

The tariff rate currently charged to the customers is INR 71.66/mmbtu which was fixed by PNGRB vide order date March 12, 2019.



iii. Working Capital

- The amount of inventory is estimated to be maintained at the same level as existing on March 31, 2019. The working capital days outstanding estimated is as follows:
 - Debtors - 15 days of annual revenue
 - Current liability for Gas consumption - 15 days of annual cost
 - Current liability for operating expenses - 60 days of annual cost

iv. Capital Expenditure

- Based on discussions with the Management, I understand that a mid-life overhaul and full-life overhaul of Gas Turbines, compressors, fuel management systems, Gas Engine Generators and upgradation and replacement of various plant and machinery components shall be required due to obsolescence and deterioration. Accordingly, a yearly capital expenditure of INR 2,000 Mn from calendar year 2030 onwards for upkeeping of the Pipeline has been considered.

v. Interest and Debt Repayment

- As on Valuation Date, PIL has outstanding Redeemable Non-Convertible Debentures issued to InvIT (“InvIT NCD”) of INR 129,500 Mn.
- NCDs are to be repaid over the period of 20 years through the form of equal monthly instalments. For first five years, the coupon rate is fixed at 9.7%. For the balance period the coupon rate has been determined based on the Fixed Income Money Market and Derivatives Association (FIMMDA) rates as on the Valuation Date. Accordingly, the coupon rate for balance period is considered at 9.5%.
- Further, PIL has issued Redeemable, Secured Non-Convertible Debentures (“New NCDs”) to third party and repay INR 64,520 Mn of existing NCDs issued to InvIT in April 2019.
- I have been informed by the Management that the New NCDs have a coupon rate of 8.95% payable quarterly. The New NCDs shall have a redemption period of 5 years.
- I understand from the Management that for the purpose of redemption of New NCDs, PIL will take another loan with the similar terms after every 5 years. Effectively, the new loans is projected to be repaid at the end of ~20 years.

vi. Terminal Year Cash Flow

- For the terminal period, a terminal growth rate of 1% has been applied on EBITDA based on projected industry outlook and overall outlook of the gas flow. Due to release of working capital, no working capital has been assumed in the terminal period on a conservative basis. Capital expenditure for terminal period has been estimated equal to INR 2,000 Mn required for up keeping the Pipeline.
- Further, PIL has issued Compulsory Convertible Preference Shares (“CCPS”) and Redeemable Preference Shares (“RPS”). As per the terms of the Transaction Documents, the value and cash flows to CCPS and RPS is attributable after the explicit period of ~20 years and accordingly, the value of CCPS and RPS as per the terms of the Transaction Documents has been adjusted from the Terminal Value.



- Corporate income tax in the explicit period has been considered as per the current tax laws applicable in India.
- The cash flows of PIL post all the aforesaid adjustments has been discounted to arrive at the equity value of InvIT Asset.

vii. Discounting Factor

- I have used the Free Cash Flows to Equity (“FCFE”) model under DCF method to estimate the equity value of InvIT Asset. In FCFE, the free cash flows available are discounted by Cost of Equity (CoE) to derive the net present value.
 - The Cost of equity (“CoE”) has been calculated as per the Capital Asset Pricing Model based on the following parameters:
 - Cost of equity = Risk Free Rate + [Beta X Equity Risk Premium] + Company Specific Risk Premium
 - Risk free rate of return of 7.4% is based on zero coupon bond yield as on the Valuation Date having maturity of 10 years as listed on www.ccilindia.com.
 - Expected market premium of 7.6% has been calculated on the expected market return of 15% as prevalent in India based on my analysis of historical market returns in India.
 - ~~Beta is a measure of systematic risk of the company’s stock as compared to the market risk.~~ Beta of 1.11 (Refer Annexure II) considered for determination of CoE is based on unlevered beta of broad comparable companies in the listed space operating in similar sector and relevered with a target long term debt-equity ratio of 1:1 as provided by the Management.
 - Based on above, the base cost of equity is arrived at 15.9%.
 - There is uncertainty involved in achieving the future extraction of projected gas volumes considering the historical performance of extraction of natural gas, therefore, I have considered a company specific risk premium of 3%.
 - Accordingly, the cost of equity is arrived at 18.9%.
- 9.2.5 The Management has informed me that contingent liabilities of PIL, if any, and liability from various litigation in respect of the Pipeline are not expected to materialize on PIL, hence no adjustment has been made in the current valuation.
- 9.2.6 The cash and cash equivalent for the business of PIL as on the Valuation Date is INR 1,411.9 Mn.
- 9.2.7 Based on above analysis and the financial projections considered, the equity value is arrived at INR 58,277.5 Mn.
- 9.2.8 The debt/ liability in the books of PIL as on the Valuation Date amounts to INR 129,500 Mn.
- 9.2.9 Based on above, the enterprise value of InvIT Asset post the aforesaid adjustments is arrived at INR 187,777.5 Mn (Refer Annexure IA).



9.3 Value of InvIT Asset attributable to InvIT

9.3.1 PIL and RIL have entered into a PUA, in order to set out the terms for RIL to reserve transportation, storage or other capacity in the Pipeline for a period of 20 years. The PUA is executed on March 19, 2019. The PUA *inter alia* provides for the following:

- RIL to pay contracted capacity payments to PIL on a quarterly basis for the capacity booked determined in accordance with the PUA. The contracted capacity payments shall be paid only when the actual transportation charges payable for the actual quantity transported is less than the contracted capacity payments. Such net accumulated contracted capacity payments shall be adjusted in the quarters where the actual transportation charges payable for the actual quantity transported is more than the contracted capacity payments.
- In consideration of RIL reserving the capacity in the Pipeline and making the payment on account of contracted capacity payments to PIL, RIL is entitled to receive certain cash flows, subject to deduction of taxes by PIL as per applicable law. The mechanism for computing the cash flow and payment of the same to RIL is provided in the PUA.
- The payment of such cash flows shall be made in the Financial Year when the actual transportation charges received by PIL in a Financial Year is higher than the contracted capacity payments during the Financial Year.

9.3.2 Based on above, after adjustment of the present value of net cash flows/benefits accruing to RIL pursuant to the Transaction Documents, the Enterprise Value attributable to the InvIT is arrived at INR 140,561.8 Mn (Refer Annexure IB).

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10 Valuation Summary

- 10.1. The current valuation has been carried out based on the valuation methodology explained herein earlier. Further, various qualitative factors, the business dynamics and growth potential of the business, having regard to information base, management perceptions, key underlying assumptions and limitations, were given due consideration.
- 10.2. I would like to highlight that in the ultimate analysis, valuation will have to be tempered by the exercise of judicious discretion and judgment taking into account all the relevant factors. There will always be several factors, e.g. quality of the management, present and prospective competition, yield on comparable securities and market sentiment, etc. which are not evident from the face of the balance sheets but which will strongly influence the worth of an entity or business.
- 10.3. The enterprise value of InvIT Asset is arrived at INR 187,777.5 Mn and the enterprise value of InvIT Asset attributable to the InvIT pursuant to the agreed terms of the Transaction Documents is arrived at INR 140,561.8 Mn.

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11 Annexures

11.1 Annexure I (1/2)

A. Valuation of InvIT Asset as per DCF Method

Valuation as per Discounted Cash Flow Method as on 31-Mar-19 (INR Mn)											
COE	18.9%										
TVG	1.0%										
Year Ending	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29	Mar-30
EBITDA	9,152.9	11,546.0	22,438.6	34,966.0	43,207.0	45,690.1	45,383.0	42,713.0	39,587.7	36,836.7	35,595.6
Less: Interest	(12,146.3)	(11,976.8)	(11,863.7)	(11,726.7)	(11,446.2)	(11,295.0)	(11,116.4)	(10,920.8)	(10,722.4)	(10,471.9)	(10,214.8)
Less: Income Tax	-	-	-	(1,686.6)	(4,263.0)	(5,357.1)	(6,015.2)	(5,483.1)	(7,423.8)	(7,652.8)	(7,519.2)
Less: Capital Expenditure	-	(123.2)	-	-	-	-	-	-	-	-	(500.0)
Add/ (Less): Changes in Working Capital	(1,603.0)	(62.8)	(472.3)	(505.7)	(324.9)	(96.3)	23.0	120.6	143.5	121.2	63.4
Repayment of Debt	(1,168.8)	(1,282.6)	(1,407.5)	(1,544.6)	(1,695.0)	(1,872.6)	(2,051.2)	(2,246.8)	(2,461.1)	(2,695.8)	(2,952.9)
Free Cash Flows	(5,765.2)	(1,899.4)	8,695.0	19,502.4	25,478.0	27,068.9	26,223.3	24,182.8	19,124.0	16,137.5	14,472.1
Terminal Value (Net of value to CCPS and RPS)											
Period for discounting	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5
Discounting Factor	0.92	0.77	0.65	0.55	0.46	0.39	0.33	0.27	0.23	0.19	0.16
Present Value of Cash Flows	(5,288.2)	(1,465.8)	5,645.7	10,654.2	11,710.5	10,468.0	8,532.1	6,620.0	4,404.6	3,127.1	2,359.5
Year Ending	Mar-31	Mar-32	Mar-33	Mar-34	Mar-35	Mar-36	Mar-37	Mar-38	Mar-39	TY	
EBITDA	34,103.6	32,437.7	29,668.6	25,716.9	20,794.7	4,665.6	4,324.7	3,415.9	2,165.3	2,242.3	
Less: Interest	(9,933.2)	(9,640.5)	(9,286.8)	(8,916.7)	(8,511.3)	(8,083.1)	(7,580.8)	(7,048.0)	(6,337.9)	-	
Less: Income Tax	(7,209.7)	(6,806.8)	(6,028.4)	(4,832.8)	(3,302.2)	-	-	-	-	(84.7)	
Less: Capital Expenditure	(2,000.0)	(2,000.0)	(2,000.0)	(2,000.0)	(2,000.0)	(2,000.0)	(2,000.0)	(2,000.0)	(1,500.0)	(2,000.0)	
Add/ (Less): Changes in Working Capital	74.3	84.8	125.2	177.2	217.7	678.5	31.4	55.0	67.6	-	
Repayment of Debt	(3,234.5)	(3,543.0)	(3,880.8)	(4,250.9)	(4,656.3)	(5,100.4)	(5,586.8)	(6,119.6)	(7,748.8)	-	
Free Cash Flows	11,800.5	10,532.2	8,597.8	5,893.7	2,542.6	(9,839.4)	(10,811.5)	(11,696.7)	(7,353.7)	157.6	
Terminal Value (Net of value to CCPS and RPS)											639.3
Period for discounting	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5	19.5	
Discounting Factor	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.03	0.03	
Present Value of Cash Flows	1,618.7	1,215.5	834.9	481.5	174.8	(569.0)	(526.1)	(478.8)	(2,675.7)	22.1	
Particulars	INR Mn										
NPV of Explicit Period Cash Flows	56,843.5										
PV of Terminal Period Cash Flows	22.1										
Add: Cash and cash equivalents	1,411.9										
Equity Value	58,277.5										
Add: Debt	1,29,500.0										
Enterprise Value (EV)	1,87,777.5										



Annexure I (2/2)

B. Computation of Value attributable to the InvIT from InvIT Asset as per Transaction Documents

Particulars	INR Mn
Enterprise Value (EV)	1,87,777.5
Less: Present value of net cash flow accruing to RIL as per the Transaction Documents (Refer C below)	(47,215.7)
Enterprise Value attributable to InvIT	1,40,561.8

C. Computation of net cash flows to RIL as per the Transaction Documents

Year Ending	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24	Mar-25	Mar-26	Mar-27	Mar-28	Mar-29
(Payment)/ Set off by RIL	(9,949.2)	(6,557.5)	5,167.1	11,863.3	-	-	-	-	-	-
Receipt/ Accrual to RIL	1,898.2	2,152.6	2,452.5	6,199.5	24,112.3	25,050.5	19,550.0	18,372.8	14,986.5	13,425.7
Total	(8,050.9)	(4,404.9)	7,619.6	18,062.8	24,112.3	25,050.5	19,550.0	18,372.8	14,986.5	13,425.7
Discounting Factor	0.92	0.77	0.65	0.55	0.46	0.39	0.33	0.27	0.23	0.19
Present Value	(7,384.8)	(3,399.4)	4,947.5	9,867.7	11,082.8	9,687.4	6,360.9	5,029.5	3,451.7	2,601.6

Year Ending	Mar-30	Mar-31	Mar-32	Mar-33	Mar-34	Mar-35	Mar-36	Mar-37	Mar-38	Mar-39
(Payment)/ Set off by RIL	-	-	-	-	-	-	(12,446.8)	(12,670.4)	(13,510.0)	(47,338.6)
Receipt/ Accrual to RIL	12,930.6	13,247.1	12,834.2	11,954.9	10,621.0	8,908.6	14,389.2	5,728.7	5,547.4	(25,664.8)
Total	12,930.6	13,247.1	12,834.2	11,954.9	10,621.0	8,908.6	1,942.4	(6,942.2)	(7,962.6)	(73,003.4)
Discounting Factor	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.03
Present Value	2,108.2	1,817.2	1,481.2	1,160.9	867.7	612.4	112.3	(337.8)	(326.0)	(2,525.3)
Sum of Present Value	47,215.7									



11.2 Annexure II - Broad Comparable Companies

Sr No	Particulars	Unlevered Beta
1	GAIL (India) Limited	0.95
2	Petronet LNG Limited	0.75
3	Indraprastha Gas Limited	0.78
4	Gujarat State Petronet Limited	0.45
5	Gujarat Gas Limited	0.36
6	Mahanagar Gas Limited	0.76
	Unlevered Beta	0.67
	Relevered Beta	1.11



Details of all Permissions (1/4)

Business Permissions and Approvals:

Sr No.	Description of Permit	Issuing Authority	Current Status
Approvals in relation to trust			
1	Certificate of registration dated January 23, 2019 having registration number IN/InvIT/18-19/0008 issued under Regulation 3 of the SEBI InvIT Regulations, for registration of the Trust as an infrastructure investment trust.	SEBI	Active
Approvals in relation to transfer of Initial Portfolio Asset			
1	Approval for the scheme of arrangement ("Scheme") between EWPL and PIL, for the transfer of the Pipeline Business from EWPL to PIL.	NCLT, Ahmedabad & Mumbai	Active
2	In-principle approval for renunciation of the authorization granted to EWPL for the Pipeline, in favor of PIL dated September 27, 2018. This approval is subject to certain terms and conditions	PNGRB	Active
3	Approval in relation to the acquisition of the entire equity shareholding of PIL by the Trust dated September 11, 2018.	Competition Commission of India	Active
Approvals in relation to Initial Portfolio Asset			
Following is an indicative list of all material approvals required for operation of Initial Portfolio Asset:			
1	Final terms and conditions for acceptance of central government authorization to lay, build, operate or expand the east west natural gas pipeline network as common carrier pipeline network issued under regulation 17(1) of the PNGRB Authorizing Regulations;	PNGRB	Active
2	Approval in respect of the expression of interest for allocation of capacity in a pipeline	Ministry of Petroleum and Natural Gas	Active
3	Right of use in the land for laying the pipeline under section 6 of the PMP Act	Ministry of Petroleum and Natural Gas	Active



Details of all Permissions (2/4)

Business Permissions and Approvals:

Sr No.	Type of Approval	Acts or Rules under which requirement specified	Facility for which permit obtained	Validity
1	Environmental Clearance	EIA Rules,2006	Kakinada Hyderabad Pipeline	One time
			Hyderabad Ahmedabad Pipeline	One time
2	Forest Clearances	The Forest Conservation Act, 1980 & The Indian Forest Act, 1928	East West Pipeline Limited	One time
3	CRZ Clearance	CRZ Notification	East West Pipeline Limited	One time
4	Public Liability Insurance Policy	Public Liability Insurance Act, 1991	East West Pipeline Limited	30-Jun-19
5	Consent to Establish	Water Act, 1974 & Air Acr, 1981	CS-01 to CS-10	One time
6	Consent to Operate & Hazardous Waste Authorization	Water Act,1974, Air Act 1981, Hazardous Waste (M&TM) Rule,2016	CS01 - CS02	28-Feb-20
			CS03 to CS04	28-Feb-24
			CS05	30-Jun-20
			CS06 to CS08	31-Mar-19 ¹
			CS09	14-Apr-23
			CS10	31-Mar-23
7	Factory Licenses	Factories Act, 1948	CS01 - CS04, CS07	Till Cancellation
			CS05	31-Dec-19
			CS06	31-Dec-18 ²
			CS08	31-Dec-17 ³
			CS09	31-Dec-23
			CS10	31-Dec-28
8	NOC for withdrawal of ground water	CGWA Rules		Pending approval
9	CCoE Approval for laying pipeline	Petroleum and Explosives Safety Organization (PESO)	Approval for Laying Kakinada-Hyderabad-Ahmedabad NG pipeline	One time
			Approval for laying of 7 KM 30" Dia NG Pipeline from Kanjanhari to GSPL sectionalizing valve at Atakpardi village CS 09	One time
10	CCoE Permission for commissioning pipeline	Petroleum and Explosives Safety Organization (PESO)	Kakinada-Hyderabad-Ahmedabad pipeline 158 KM stretch (EWPL) CS06 - CS07	One Time Issue
			Kakinada-Hyderabad-Ahmedabad Stretch 761 KM (EWPL) CS01 - CS06	One Time Issue
			East Godavari Spur Line (URSPL)	One Time Issue

¹ Renewal Application Submitted on 27-Feb-2019

² Renewal Application Submitted on 05-Nov-2018

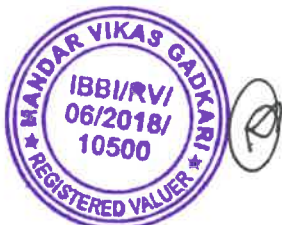
³ Renewal Application Submitted on 02-Nov-2018



Details of all Permissions (3/4)

Business Permissions and Approvals:

Sr No.	Type of Approval	Acts or Rules under which requirement specified	Facility for which permit obtained	Validity
			Uran Spur Line (URSPL)	One Time Issue
			Kakinada-Hyderabad-Ahmedabad pipeline 166 KM stretch (EWPL) CS08 - CS09	One Time Issue
			Kakinada-Hyderabad-Ahmedabad pipeline 130 KM stretch (EWPL) CS09 - CS10	One Time Issue
			Kakinada-Hyderabad-Ahmedabad pipeline 156 KM stretch (EWPL) CS07 - CS08	One Time Issue
			7 KM 30" Dia NG Pipeline from Kanjanhari to GSPL sectionalizing valve at Atakpardi village (SGUSPL) CS09	One Time Issue
			NTPC Kawas spur line (KWSPL) CS10	One Time Issue
			28" NG spur line from M&R 22 at Dhamka to HLPL (SHELL connectivity) (KWSPL) CS10	One Time Issue
			16" NG spur line from Tap Off point at Chevuturu village (Krishna Dist. AP) to M&R Lanco Kondapalli (LKSP) CS02	One Time Issue
11	Fire NOCs	A P state Disaster Response and Fire Services Department	CS01	7-Apr-20
		A P state Disaster Response and Fire Services Department	CS02	10-Sep-19
		Telangana state Disaster Response and Fire Services Department	CS03	Not Applicable



Details of all Permissions (4/4)

Business Permissions and Approvals:

Sr No.	Type of Approval	Acts or Rules under which requirement specified	Facility for which permit obtained	Validity
		Telangana state Disaster Response and Fire Services Department	CS04	Not Applicable
		Karnataka State Fire and Emergency Services	CS05	20-Apr-19 ⁴
		Directorate Maharashtra Fire Services	CS06, CS07 & CS08	One Time
		Gujarat Fire Services	CS09 & CS10	Not Applicable
12	Building plan approvals	DISH (Directorate of Industrial Safety and Health)	CS02 - CS10	One Time
13	Structure Stability Certificate	Factories Act, 1948	CS01	Renewal not required as per Andhra Pradesh Factories Rules, 1950
			CS02	7-Jun-23
			CS03	7-Jun-23
			CS04	7-Jun-23
			CS05	19-Jun-23
			CS06	30-Sep-19
			CS07	13-Jun-23
			CS08	14-Jun-23
			CS09	27-Oct-21
			CS10	28-Oct-21
14	Consent to Engage Contract Labour	Contract Labour regulation and Abolition Act 1970	CS01 to CS10	One time
15	Wireless Station License by GOVERNMENT OF INDIA, Ministry of Communications and Information Technology	Under The Indian Telegraph Act 1885	CS01 to CS 10	31-Dec-19
16	State Electricity Authorization	the Electricity Act 2003 read with the Indian Electricity Rules, 1956	East West Pipeline limited	One time
17	Pipeline Authorization	PNGRB Act, 2006	East West Pipeline Limited	One time
		PNGRB Act, 2006	East West Pipeline Limited	One time

⁴ Renewal Application Submitted on 21-Feb-2019



11.3 Annexure IV - Litigations Details (1/2)

Sr No.	Against	Pending Before	Details of the Case
Disputes in connection with the right of user granted to EWPL under the PMP Act			
1	EWPL/RGTIL	District Judge, Pune	[Ramchandra Jaggnath Sabale ("Claimant") filed a miscellaneous application against RGTIL (former name of EWPL) before the District Judge, Pune. The application was made under the PMP Act for enhancement of compensation [to a total claim of ₹ 52.10 million]]. The court by its order dated April 27, 2016 dismissed the application filed by the Claimant directing him to pay the court fees on the amount of compensation claimed. The matter is currently pending.
2	EWPL/RGTIL	Principal District Judge Court, Navsari	[Kamuben filed an application before the Principal District Judge Court, Navsari against the competent authority under the PMP Act and RGTIL (former name of EWPL) demanding additional compensation amounting to ₹ 510.00 million. The matter is currently pending].
3	EWPL/RGTIL	Senior Civil Judge, Bharuch	[Manharlal Shivilal Panchal and others filed a land acquisition reference before the court of the Senior Civil Judge, Bharuch, against RGTIL (former name of EWPL) and the district collector claiming excess compensation to the tune of ₹ 107.45 million. The matter is currently pending].
4	EWPL/RGTIL	Principal District Judge Court, Navsari	[Savitaben Patel and others ("Claimants") filed an application before the Principal District Judge Court, Navsari in Navsari against the deputy collector and competent authority under the PMP Act, and RGTIL (former name of EWPL) demanding additional compensation, amounting to ₹ 70.00 million] which was dismissed for default on August 18, 2018]. [Savitaben Patel has also filed an application for restoration and the matter is currently pending].
5	EWPL/RGTIL	Principal District Judge Court, Navsari	[Thakorbhai Khandubhai and others ("Claimants") filed an application before the Principal District Judge Court, Navsari against RGTIL (former name of EWPL) demanding additional compensation, [amounting to a total claim of ₹ 910.00 million]. It was dismissed for default on August 18, 2018.] [However, the Claimants have filed an application for restoration and the matter is currently pending].
Royalty Related			
1	EWPL/RGTIL	Bombay High Court	EWPL has received demand notices from the revenue authorities in Maharashtra seeking to levy royalty (together with penalty and other charges) of INR 415.6 million on the grounds that EWPL for the purpose of laying the East West Pipeline, had conducted an excavation of earth which is treated as mining of minor minerals under the Maharashtra Land Revenue Code, 1966. EWPL has also already paid penalty to the tune of approximately INR 132.1 million under duress and coercion. EWPL challenged the levy of royalty by filing a writ petition before the Bombay High Court in 2009 on the grounds that the operation of



Annexure IV - Litigations Details (2/2)

Sr No.	Against	Pending Before	Details of the Case
			laying the gas pipeline does not qualify as mining of minor minerals and the levy is in contravention of Article 265 of the Constitution of India. The Bombay High Court vide order dated February 09, 2009 directed the revenue authorities to restrain from taking any coercive steps against EWPL. The matter was last posted for hearing on October 17, 2012 and has not yet been listed for hearing again and is currently pending.
Other Tariff Related			
1	NA	PNGRB	<p>PIL has filed a review petition on January 11, 2019 before the PNGRB seeking review of the order passed by the PNGRB dated December 10, 2018 (the "Order"), pursuant to which PNGRB determined the levelized tariff for the high pressure Gujarat gas grid ("HP Gas Grid") of Gujarat State Petronet Limited ("GSP Limited") and the Dahej-Uran-Panvel-Dhabol Natural Gas Pipeline Network ("DUPL-DPPL") of GAIL under the provisions of the Tariff Regulations, making it applicable retrospectively with effect from April 1, 2018.</p> <p>Pursuant to the demerger of the Pipeline Business, PIL provides end to end gas transportation services to its customers, including the Reliance's facilities in Jamnagar through the Pipeline and GSP Limited's HP Gas Grid pursuant to a gas transportation agreement entered into with GSP Limited (the "GTA").</p> <p>PIL has sought review of the Order seeking</p> <p>(i) modification of the Order to make it effective prospectively from April 1, 2019 as opposed to the Order currently making the tariff applicable retrospectively from April 1, 2018, and</p> <p>(ii) modification of the zonal levelized tariff considering the point of origin for GSP Limited's HP Gas Grid as Mora as opposed to the Order currently fixing the tariff on the bases of Eklara as the point of origin.</p> <p>PIL has also sought an interim relief for a stay on the Order. The matter is currently pending. PNGRB vide order dated 15/03/2019 stayed the operation of the Order, GSPL challenged the said order before the High Court of Delhi by filing WP No 3128 of 2019. High Court setting aside the Order (vide order dated 03/04/2019) directed PNGRB to pass fresh orders after giving the opportunity of hearing to all the parties concerned. In compliance to Delhi High Court order, PNGRB has started the hearing, next date of hearing is on 12/06/2019.</p>



Note: The details of the key litigations which may have bearing on the valuation i.e. capacity assessment and determination of final tariff have been disclosed on page 21 of the Report.



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11.4 Annexure V - Other Disclosures as required under SEBI InvIT Regulations

Purchase Price of the project by the InvIT

The Trust has acquired 100% of equity share capital of PIL for an amount of INR 500 Mn as on March 22, 2019.

Valuation of InvIT Asset in the past

Date of Valuation	Value of InvIT Asset (INR Mn)	Value of InvIT Asset attributable to InvIT (INR Mn)
March 08, 2019	178,030.8	139,639.9

Statement of Assets

The Trust has acquired PIL and through PIL runs the Pipeline Business which was historically owned and operated by EWPL. NCLT Ahmedabad vide its order dated November 12, 2018 and NCLT Mumbai vide its order dated December 21, 2018 has approved the Scheme for transfer of the Pipeline Business from EWPL to PIL. As per the provisional financial statements as on March 31, 2019, PIL has a gross fixed asset consisting of the assets related to the Pipeline amounting to INR 151,985.8 Mn and intangible asset amounting to INR 18,513.5 Mn.

Details of Major Repairs to the Pipeline - Past and Proposed

- As per discussions with the Management, I understand that no major repairs have been done in the past to the Pipeline.
- In the coming years, it is estimated that a yearly expenditure of -INR 2,000 Mn shall be required from calendar year 2030 to 2038 thereby totaling to INR 18,000 Mn towards mid-life overhaul and full life overhaul of the following:
 - Gas turbines;
 - Compressors;
 - Pumps and related auxiliaries;
 - Fuel management systems;
 - Gas Engine Generators;
 - Compressor Operating & control system;
 - UPS system;
 - Transformers;
 - Battery Bank;
 - Digital Relays; and
 - Other IT infrastructure



Revenue pendency including local authority taxes associated with InvIT Asset and compounding charges:

The Management has confirmed to me that there are no revenue pendencies including local authority taxes associated with the InvIT Asset and compounding charges.

Vulnerability to natural or induced hazards that may not have been covered in town planning/ building control:

The Management has confirmed to me that there is no vulnerability to natural or induced hazards that may not have been covered in town planning/ building control.

