

**Prepared for:
Highways Infrastructure Trust (“the Trust”)**

**Highway Concessions One Private Limited
 (“the Investment Manager”)**

Valuation as per SEBI (Infrastructure Investment Trusts) Regulations, 2014 as amended

Fair Enterprise Valuation

Valuation Date: 31st March 2023

**Mr. S Sundararaman,
Registered Valuer,
IBBI Registration No - IBBI/RV/06/2018/10238**

S. SUNDARARAMAN

Registered Valuer

Registration No - IBBI/RV/06/2018/10238

RV/SSR/R/2024/07

Date: 12th May 2023

Highways Infrastructure Trust

2nd Floor, Piramal Tower,
Peninsula Corporate Park,
Lower Parel, Mumbai – 400 013.

Highway Concessions One Private Limited

(acting as the Investment Manager to Highways Infrastructure Trust)

316-317, 'C' Wing, Kanakia Zillion,
L.B.S. Road, BKC Annex,
Kurla (West), Mumbai – 400 070

Sub: Financial Valuation as per SEBI (Infrastructure Investment Trusts) Regulations, 2014, as amended ("the SEBI InvIT Regulations")

Dear Sir(s)/ Madam(s),

I, Mr. S. Sundararaman ("**Registered Valuer**" or "**RV**" or "**I**" or "**My**" or "**Me**") bearing IBBI registration number IBBI/RV/06/2018/10238, have been appointed vide letter dated 4th April 2023 as an independent valuer, as defined as per Regulation 2(zff) of the SEBI InvIT Regulations, by **Highway Concessions One Private Limited** ("**HC One**" or "**the Investment Manager**") acting as the investment manager for **Highways Infrastructure Trust** ("**the Trust**" or "**Highways InvIT**"), an infrastructure investment trust, registered with the **Securities Exchange Board of India** ("**SEBI**") with effect from 23rd December 2021, bearing registration number IN/InvIT/21-22/0019 and **Axis Trustee Services Limited** ("**the Trustee**") acting on behalf of the Trust. For the purpose of the financial valuation of the special purpose vehicles (defined below and hereinafter together referred as "**the SPVs**") of Galaxy Investments II Pte. Limited ("**the Sponsor**" or "**Galaxy**") as per the requirements of the Securities and Exchange Board of India (Infrastructure Investment Trusts) Regulations, 2014, as amended ("**SEBI InvIT Regulations**"). The SPVs are to be valued as per Regulation 21 of SEBI (Infrastructure Investment Trust) Regulations 2014 ("**SEBI InvIT Regulations**") as amended from time to time, where HC One is acting as the Investment Manager.

I am enclosing the Report providing opinion on the fair enterprise value of the SPVs as defined hereinafter on a going concern basis as at 31st March 2023 ("**Valuation Date**").

Enterprise Value ("**EV**") is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash or cash equivalents to meet those liabilities. The attached Report details the valuation methodologies used, calculations performed and the conclusion reached with respect to this valuation.

I was further requested by the Investment Manager to provide the adjusted enterprise value of the SPVs as at 31st March 2023, where the adjusted enterprise value ("**Adjusted EV**") is derived as EV as defined above plus cash or cash equivalents of the SPVs as at 31st March 2023.

I have relied on explanations and information provided by the Investment Manager. Although, I have reviewed such data for consistency, those are not independently investigated or otherwise verified. My team and I have no present or planned future interest in the Trust, the SPVs or the Investment Manager except to the extent of this appointment as an independent valuer and the fee for this Valuation Report ("**Report**") which is not contingent upon the values reported herein. The valuation analysis should not be construed as investment advice, specifically, I do not express any opinion on the suitability or otherwise of entering into any financial or other transaction with the Trust.

Mr. S Sundararaman, Registered Valuer

Registered Valuer Registration No - IBBI/RV/06/2018/10238

5B, "A" Block, 5th Floor, Mena Kampala Arcade, New #18 & 20, Thiagaraya Road, T.Nagar, Chennai – 600 017, India

Telephone No.: +91 44 2815 4192

S. SUNDARARAMAN

Registered Valuer

Registration No - IBBI/RV/06/2018/10238

This Report has been prepared for the purpose of Fair Valuation of SPVs in compliance with the SEBI InvIT regulations.

Following Special Purpose Vehicles are proposed to be transferred to the Trust:

Sr. No.	Name of the SPV	Term	Group
Annuity Model Assets ("Annuity SPVs")			Annuity SPVs
1	Nirmal BOT Limited	NBL	
2	Shillong Expressway Private Limited	SEPL	
Toll Model Assets ("Toll SPVs")			Toll SPVs
3	Dewas Bhopal Corridor Private Limited	DBCPL	
4	Godhra Expressways Private Limited	GEPL	
5	Jodhpur Pali Expressway Private Limited	JPEPL	
6	Ulundurpet Expressways Private Limited	UEPL	

(Hereinafter all the 6 companies mentioned above are together referred to as "**the SPVs**")

The analysis must be considered as a whole. Selecting portions of any analysis or the factors that are considered in this Report, without considering all factors and analysis together could create a misleading view of the process underlying the valuation conclusions. The preparation of a valuation is a complex process and is not necessarily susceptible to partial analysis or summary description. Any attempt to do so could lead to undue emphasis on any particular factor or analysis.

The information provided to me by the Investment Manager in relation to the SPVs included but not limited to historical financial statements, forecasts/projections, other statements and assumptions about future matters like forward-looking financial information prepared by the Investment Manager. The forecasts and projections as supplied to me are based upon assumptions about events and circumstances which are yet to occur.

I have not tested individual assumptions or attempted to substantiate the veracity or integrity of such assumptions in relation to the forward-looking financial information, however, I have made sufficient enquiry to satisfy myself that such information has been prepared on a reasonable basis.

Notwithstanding anything above, I cannot provide any assurance that the forward looking financial information will be representative of the results which will actually be achieved during the cash flow forecast period.

The valuation provided by RV and the valuation conclusion are included herein and the Report complies with the SEBI InvIT Regulations and guidelines, circular or notification issued by the Securities and Exchange Board of India ("**SEBI**") thereunder.

Please note that all comments in the Report must be read in conjunction with the caveats to the Report, which are contained in Section 11 of this Report. This letter, the Report and the summary of valuation included herein can be provided to Trust's advisors and may be made available for the inspection to the public and with the SEBI, the stock exchanges and any other regulatory and supervisory authority, as may be required.

RV draws your attention to the limitation of liability clauses in Section 11 of this Report.

S. SUNDARARAMAN

Registered Valuer

Registration No - IBBI/RV/06/2018/10238

This letter should be read in conjunction with the attached Report.

Yours faithfully,

S. Sundararaman

Registered Valuer

IBBI Registration No.: IBBI/RV/06/2018/10238

Asset Class: Securities or Financial Assets

Place: Chennai

UDIN: 23028423BGYWGT8936

Mr. S Sundararaman, Registered Valuer

Registered Valuer Registration No - IBBI/RV/06/2018/10238

5B, "A" Block, 5th Floor, Mena Kampala Arcade, New #18 & 20, Thiagaraya Road, T.Nagar, Chennai – 600 017, India

Telephone No.: +91 44 2815 4192

Contents

Section	Particulars	Page No.
1	Executive Summary	8
2	Procedures adopted for current valuation exercise	14
3	Overview of the InvIT and the SPVs	15
4	Structure of the Trust as at 31 st March 2023	29
5	Overview of the Industry	30
6	Valuation Methodology and Approach	39
7	Valuation of the SPVs	43
8	Valuation Conclusion	48
9	Additional procedures for compliance with InvIT Regulations	51
10	Sources of Information	54
11	Exclusions and Limitations	55
	Appendices	
12	Appendix 1 : Valuation of SPVs as on 31 st March 2023	59
13	Appendix 2 : Weighted Average Cost of Capital of the SPVs	66
14	Appendix 3: Summary of Approvals and Licenses	68
15	Appendix 4: Summary of Ongoing Litigations	73

Definition, abbreviation & glossary of terms

Abbreviations	Meaning
BOT	Build, Operate and Transfer
Capex	Capital Expenditure
CCIL	Clearing Corporation of India Limited
CCM	Comparable Companies Multiples
COD	Commercial Operation Date
Cr	Crores
CTM	Comparable Transactions Multiples
DBFOT	Design, Build, Finance, Operate and Transfer
DCF	Discounted Cash Flow
DBCPL	Dewas Bhopal Corridor Private Limited
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ERP	Equity Risk Premium
ETC	Electronic Toll Collection
EV	Enterprise Value
FCFF	Free Cash Flow to the Firm
FDI	Foreign Direct Investment
FPM	Final Placement Memorandum
FY	Financial Year Ended 31 st March
GEPL	Godhra Expressways Private Limited
GQ	Golden Quadrilateral
HAM	Hybrid Annuity Model
Ind AS	Indian Accounting Standards
INR	Indian Rupees
Investment Manager/HC One	Highway Concessions One Private Limited
IVS	ICAI Valuation Standards 2018
JPEPL	Jodhpur Pali Expressway Private Limited
Kms	Kilometres
MoRTH	Ministry of Road Transport and Highways
MMR	Major Maintenance and Repairs
MPRDC	Madhya Pradesh Road Development Corporation Limited
Mn	Million
NAV	Net Asset Value Method
NBL	Nirmal BOT Limited
NCA	Net Current Assets Excluding Cash and Bank Balances
NH	National Highway
NHAI	National Highways Authority of India
NHDP	National Highways Development Project
NS-EW	North- South and East-West Corridors
O&M	Operation & Maintenance
PM	Placement Memorandum
PPP	Public Private Partnership

RFID	Radio Frequency Identification
RV	Registered Valuer
SEBI	Securities and Exchange Board of India
SEBI InvIT Regulations	SEBI (Infrastructure Investment Trusts) Regulations, 2014, as amended
SEPL	Shillong Expressway Private Limited
SH	State Highway
Sponsor/ Galaxy	Galaxy Investments II Pte. Limited
SPV	Special Purpose Vehicle
the Trustee	Axis Trustee Services Limited
UEPL	Ulundurpet Expressways Private Limited

1. Executive Summary

1.1. Background

- 1.1.1. Galaxy Investments II Pte. Limited ("**the Sponsor**" or "**Galaxy**") has sponsored an infrastructure investment trust under the SEBI InvIT Regulations called "**Highways Infrastructure Trust**" ("**Highways InvIT**" or "**the Trust**"). Galaxy was incorporated on 11th June 2021 in Singapore. Galaxy is involved in investment activities primarily with an objective of earning long term capital appreciation. Galaxy seeks to invest in companies incorporated in India that operate in the "infrastructure" sector.
- 1.1.2. Galaxy is a 100% subsidiary of Galaxy Investments Pte. Ltd., which is invested in by funds, vehicles and/or entities managed and/or advised by Kohlberg Kravis Roberts & Co. LP and/ or its affiliates (collectively "**KKR**").
- 1.1.3. Founded in 1976, KKR is a leading global investment firm that offers alternative asset management and capital markets and insurance solutions with approximately US\$ 504 billion of assets under management as of 31st December 2022.
- 1.1.4. Axis Trustee Services Limited ("**the Trustee**") has been appointed as the Trustee of the Highways InvIT. Highway Concessions One Private Limited ("**HC One**" or "**the Investment Manager**") has been appointed as the Investment Manager to the Trust by the Trustee and will be responsible to carry out the duties of such person as mentioned under the SEBI InvIT Regulations.
- 1.1.5. Shareholding of the Investment Manager as on the Valuation Date is as under :

Sr. No.	Particulars	No. of shares	%
1	Galaxy Investments II Pte. Ltd.	3,76,47,288	100.0 %
2	Vidyadhar S. Dabholkar*	1	0.0 %
	Total	3,76,47,289	100.0 %

Source: Investment Manager

* as a nominee of Galaxy Investments II Pte. Ltd.

- 1.1.6. I understand that the management of the Trust is desirous of undertaking financial valuation of 6 SPVs. In this regards, I have been mandated to determine the fair enterprise value of 6 SPVs as defined in the Letter in accordance with the SEBI InvIT Regulations and in this context would like me to carry out valuation of SPVs as on 31st March 2023.
- 1.1.7. **Financial Assets to be Valued**

The financial assets under consideration are valued at Enterprise Value and Adjusted Enterprise Value of the following:

Sr. No.	Name of the SPV
Annuity Model Assets ("Annuity SPVs")	
1	Nirmal BOT Limited ("NBL")
2	Shillong Expressway Private Limited ("SEPL")
Toll Model Assets ("Toll SPVs")	
3	Dewas Bhopal Corridor Private Limited ("DBCPL")
4	Godhra Expressways Private Limited ("GEPL")
5	Jodhpur Pali Expressway Private Limited ("JPEPL")
6	Ulundurpet Expressways Private Limited ("UEPL")

(Together referred to as "**the SPVs**")

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- 1.1.8. In this regard, the Investment Manager has appointed me, S. Sundararaman (“**Registered Valuer**” or “**RV**” or “**I**” or “**My**” or “**Me**”) bearing IBBI registration number IBBI/RV/06/2018/10238 to undertake fair valuation of the SPVs at the enterprise level as per the extant provisions of the SEBI InvIT Regulations issued by SEBI. Enterprise Value (“**EV**”) is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash or cash equivalents to meet those liabilities.
- 1.1.9. Further, on the request of the Investment Manager, I have calculated Adjusted Enterprise Value of the SPVs which is derived as the EV as defined above plus cash or cash equivalents of the SPVs as at the Valuation Date.
- 1.1.10. I declare that:
- i. I am competent to undertake the financial valuation in terms of the SEBI InvIT Regulations;
 - ii. I am not an associate of the sponsor(s) or investment manager or trustee and I have not less than five years of experience in valuation of infrastructure assets;
 - iii. I am independent and have prepared the Report on a fair and unbiased basis;
 - iv. I have valued the SPVs based on the valuation standards as specified / applicable as per SEBI InvIT Regulations.
- 1.1.11. This Report covers all the disclosures required as per the SEBI InvIT Regulations and the Valuation of the SPVs is impartial, true and fair and in compliance with the SEBI InvIT Regulations.

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1.2. **Scope of Valuation**

1.2.1. **Valuation Base**

Valuation Base means the indication of the type of value being used in an engagement. In the present case, I have determined the fair value of the SPVs at the enterprise level. Fair Value Bases defined as under:

Fair Value

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the valuation date. It is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique. Fair value or Market value is usually synonymous to each other except in certain circumstances where characteristics of an asset translate into a special asset value for the party(ies) involved.

1.2.2. **Valuation Date**

Valuation Date is the specific date at which the value of the assets to be valued gets estimated or measured. Valuation is time specific and can change with the passage of time due to changes in the condition of the asset to be valued. Accordingly, valuation of an asset as at a particular date can be different from other date(s).

The Valuation Date considered for the fair enterprise valuation of the SPVs is 31st March 2023 ("**Valuation Date**"). The attached Report is drawn up by reference to accounting and financial information as on 31st March 2023. The RV is not aware of any other events having occurred since 31st March 2023 till date of this Report which he deems to be significant for his valuation analysis.

1.2.3. **Premise of Value**

Premise of Value refers to the conditions and circumstances how an asset is deployed. In the present case, RV has determined the fair enterprise value of the SPVs on a Going Concern Value defined as under:

Going Concern Value

Going Concern value is the value of a business enterprise that is expected to continue to operate in the future. The intangible elements of going concern value result from factors such as having a trained work force, an operational plant, necessary licenses, systems, and procedures in place etc.

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1.3. Summary of Valuation

I have assessed the fair enterprise value of each of the SPVs on a stand-alone basis by using the Discounted Cash Flow (“**DCF**”) method under the income approach. Following table summarizes my explanation on the usage or non usage of different valuation methods:

Valuation Approach	Valuation Methodology	Used	Explanation
Cost Approach	Net Asset Value	No	NAV does not capture the future earning potential of the business. Hence NAV method is considered only for background reference.
Income Approach	Discounted Cash Flow	Yes	<p>For Annuity SPVs: The revenue of NHAI Annuity SPVs is mainly derived from the annuity fees that are typically pre-determined with NHAI (as specified in the respective concession agreement) and cannot be modified to reflect prevailing circumstances like inflation & interest rates.</p> <p>For Toll SPVs: The Toll SPVs derive almost all of their revenue from their toll-road operations. The Toll SPVs are substantially dependent on the accuracy of the traffic volume forecasts for their respective projects.</p> <p>Accordingly, since all the SPVs are generating income based on pre-determined agreements / mechanism and since the Investment Manager has provided me the financial projections for the balance tenor of the concessions agreements, DCF Method under the income approach has been considered as the appropriate method for the present valuation exercise.</p>
Market Approach	Market Price	No	The equity shares of the SPVs are not listed on any recognized stock exchange in India. Hence, I was unable to apply the market price method.
	Comparable Companies	No	In the absence of any exactly comparable listed companies with characteristics and parameters similar to that of the SPVs, I am unable to consider this method for the current valuation.
	Comparable Transactions	No	In the absence of adequate details about the Comparable Transactions, I was unable to apply the CTM method.

Under the DCF Method, the Free Cash Flow to Firm (“**FCFF**”) has been used for the purpose of valuation of each of the SPVs. In order to arrive at the fair EV of the individual SPVs under the DCF Method, I have relied on Provisional Unaudited Financial Statements as at 31st March 2023 prepared in accordance with the Indian Accounting Standards (Ind AS) and the financial projections of the respective SPVs prepared by the Investment Manager as at the Valuation Date based on their best judgement.

The discount rate considered for the respective SPVs for the purpose of this valuation exercise is based on the Weighted Average Cost of Capital (“**WACC**”) for each of the SPVs. As all the SPVs under considerations have executed projects under the BOT /DBFOT model, the operating rights of the underlying assets shall be transferred back to the appointing authority after the expiry of the concession period. At the end of the agreed concession period, the operating rights in relation to the roads, the obligation to maintain the road and the right to collect tolls from the vehicles using the road revert to the government entity that granted the concession by the SPVs. Accordingly,

terminal period value i.e. value on account of cash flows to be generated after the expiry of concession period has not been considered.

Based on the methodology and assumptions discussed further, RV has arrived at the fair enterprise value of the SPVs as on the Valuation Date:

Sr. No.	SPVs	Approximate Projection Period (Balance Project Period#)	WACC	Fair Value of EV* (INR Mn)	Fair Value of Adjusted EV** (INR Mn)
1	NBL	~4 years 7 months	8.3%	1,104	1,168
2	SEPL	~2 years 10 months	8.4%	220	531
3	DBCPL	~10 years 8 months	10.6%	15,709	15,863
4	GEPL	~20 years 5 months	10.5%	22,866	22,937
5	JPEPL	~20 years 8 months	10.5%	8,018	8,123
6	UEPL	~4 years 0 months	10.1%	4,484	4,944
Total				52,402	53,566

including likely extension(s) as detailed in this report

* Enterprise Value ("EV") is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash or cash equivalents to meet those liabilities.

** Further, on the request of the Investment Manager, I have calculated Adjusted Enterprise Value of the SPVs which is derived as the EV as defined above plus cash or cash equivalents of the SPVs as at the Valuation Date.

(Refer Appendix 1 & 2 for the detailed workings)

Further to above, considering that present valuation exercise is based on the future financial performance and based on opinions on the future credit risk, cost of debt assumptions, etc., which represent reasonable expectations at a particular point of 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 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 variations may be material. Accordingly, a quantitative sensitivity analysis is considered on the following unobservable inputs:

1. WACC by increasing / decreasing it by 0.5%
2. WACC by increasing / decreasing it by 1.0%
3. Revenue of Toll SPVs by increasing / decreasing it by 10%
4. Operation and Maintenance Expenses by increasing / decreasing it by 20%

1. Fair Enterprise Valuation Range based on WACC parameter (0.5%)

INR Mn							
Sr. No.	SPVs	WACC + 0.5%	EV	Base WACC	EV	WACC - 0.5%	EV
1	NBL	8.8%	1,090	8.3%	1,104	7.8%	1,119
2	SEPL	8.9%	219	8.4%	220	7.9%	221
3	DBCPL	11.1%	15,333	10.6%	15,709	10.1%	16,100
4	GEPL	11.0%	21,847	10.5%	22,866	10.0%	23,954
5	JPEPL	11.0%	7,658	10.5%	8,018	10.0%	8,403
6	UEPL	10.6%	4,440	10.1%	4,484	9.6%	4,528
Total of all SPVs			50,587		52,402		54,325

2. Fair Enterprise Valuation Range based on WACC parameter (1.0%)

Sr. No.	SPVs	INR Mn					
		WACC + 1.0%	EV	Base WACC	EV	WACC - 1.0%	EV
1	NBL	9.3%	1,076	8.3%	1,104	7.3%	1,133
2	SEPL	9.4%	217	8.4%	220	7.4%	223
3	DBCPL	11.6%	14,970	10.6%	15,709	9.6%	16,505
4	GEPL	11.5%	20,892	10.5%	22,866	9.5%	25,116
5	JPEPL	11.5%	7,321	10.5%	8,018	9.5%	8,814
6	UEPL	11.1%	4,396	10.1%	4,484	9.1%	4,574
Total of all SPVs			48,872		52,402		56,365

3. Fair Enterprise Valuation Range based on Revenue parameter of Toll SPVs (10%)

Sr. No.	SPVs	INR Mn		
		EV at Revenue - 10%	EV at Base Revenue	EV at Revenue + 10%
1	NBL	NA	NA	NA
2	SEPL	NA	NA	NA
3	DBCPL	13,870	15,709	17,548
4	GEPL	20,229	22,866	25,503
5	JPEPL	6,925	8,018	9,112
6	UEPL	3,945	4,484	5,023
Total of all SPVs		44,968	51,078	57,186

4. Fair Enterprise Valuation Range based on Major Maintenance Expenses and Operation & Maintenance Expenses parameter (20%)

Sr. No.	SPVs	INR Mn		
		EV at Expenses + 20%	EV at Base Expenses	EV at Expenses - 20%
1	NBL	978	1,104	1,232
2	SEPL	108	220	329
3	DBCPL	15,043	15,709	16,375
4	GEPL	22,391	22,866	23,341
5	JPEPL	7,439	8,018	8,598
6	UEPL	4,195	4,484	4,772
Total of all SPVs		50,153	52,402	54,647

The above represents reasonable range of fair enterprise valuation of the SPVs.

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2. Procedures adopted for current valuation exercise

- 2.1. I have performed the valuation analysis, to the extent applicable, in accordance with ICAI Valuation Standards 2018 ("**IVS**") issued by the Institute of Chartered Accountants of India.
- 2.2. In connection with this analysis, I have adopted the following procedures to carry out the valuation analysis:
- 2.2.1. Requested and received financial and qualitative information relating to the SPVs;
 - 2.2.2. Obtained and analyzed data available in public domain, as considered relevant by me;
 - 2.2.3. Discussions with the Investment Manager on:
 - Understanding of the business of the SPVs – business and fundamental factors that affect its earning-generating capacity including strengths, weaknesses, opportunities and threats analysis and historical and expected financial performance;
 - 2.2.4. Undertook industry analysis:
 - Research publicly available market data including economic factors and industry trends that may impact the valuation;
 - Analysis of key trends and valuation multiples of comparable companies/comparable transactions, if any, using proprietary databases subscribed by me;
 - 2.2.5. Analysis of other publicly available information;
 - 2.2.6. Selection of valuation approach and valuation methodology/(ies), in accordance with IVS, as considered appropriate and relevant by me;
 - 2.2.7. Conducted physical site visit of the road stretch of the SPVs;
 - 2.2.8. Determination of fair value of the EV of the SPVs on a going concern basis till the end of the concession period as at the Valuation Date and determination of fair value of the Adjusted EV of the SPVs on a going concern basis till the end of the concession period as at the Valuation Date on request of the Investment Manager.

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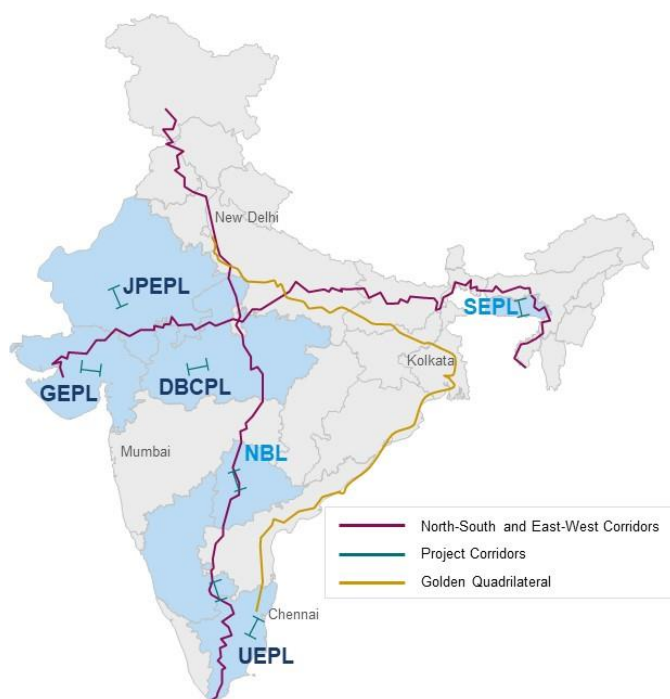
3. Overview of Sponsor, InvIT and SPVs

3.1. The Trust

- 3.1.1. Galaxy Investments II Pte. Ltd. is the Sponsor of the Highways Trust. The Sponsor was incorporated on 11th June 2021 in Singapore. Galaxy is involved in investment activities primarily with an objective of earning long term capital appreciation. Galaxy seeks to invest in companies incorporated in India that operate in the “infrastructure” sector.
- 3.1.2. Galaxy is a 100% subsidiary of Galaxy Investments Pte. Ltd., which is invested in by funds, vehicles and/or entities managed and/or advised by Kohlberg Kravis Roberts & Co. LP and/ or its affiliates (collectively “KKR”).
- 3.1.3. Founded in 1976, KKR is a leading global investment firm that offers alternative asset management and capital markets and insurance solutions with approximately US\$ 504 billion of assets under management as of 31st December 2022.
- 3.1.4. I understand that the Highways InvIT, acting through the Investment Manager, has acquired the equity held by the Sponsor in the SPVs following which units have been issued to the Sponsor and other investors by the Trust, which are listed on NSE.
- 3.1.5. Following is the summary of SPVs, Including the date of acquisition and cost of acquisition of the SPVs:

Sr. No.	SPVs	Acquisition Date	Acquisition Cost (INR Mn)
1	NBL	22-Aug-2022	354
2	SEPL	22-Aug-2022	356
3	DBCPL	22-Aug-2022	12,969
4	GEPL	22-Aug-2022	11,167
5	JPEPL	22-Aug-2022	3,863
6	UEPL	22-Aug-2022	3,005

- 3.1.6. Following is a map of India showing the area covered by the SPVs of the Trust:

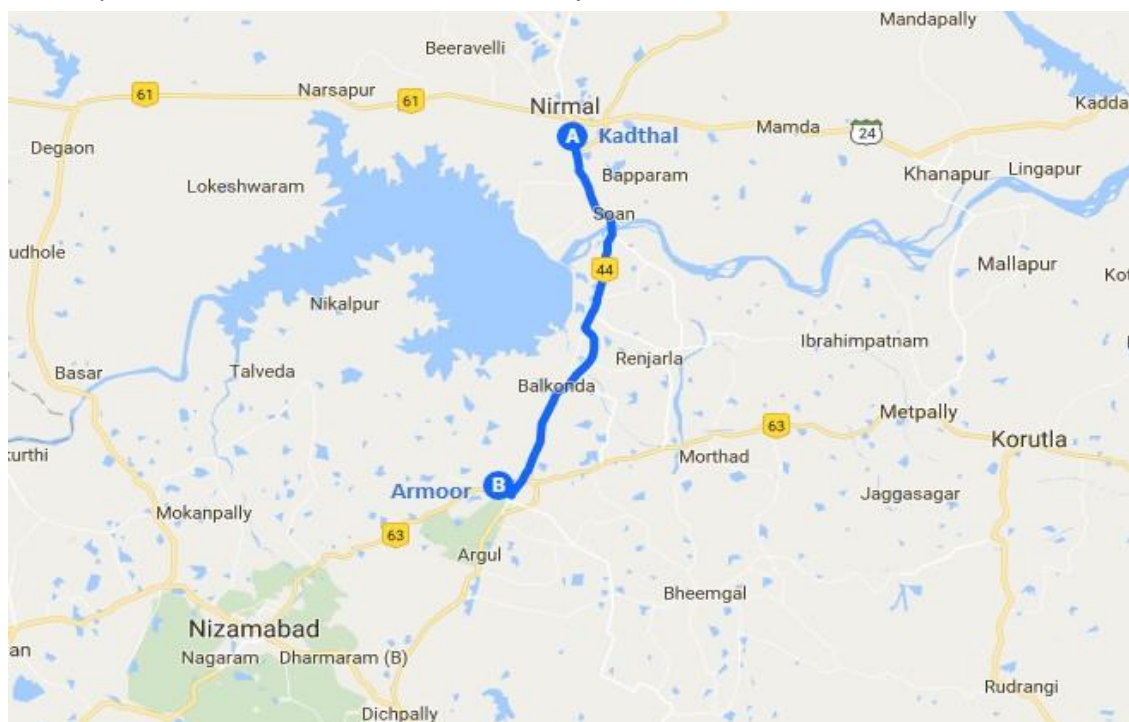


Background of the SPVs

3.4. Nirmal BOT Limited (“NBL”)

- 3.4.1. The Project Road is a Section of NH-7 which starts from Kadthal in Adilabad District (New Ch. 282+617) and ends at Armur in Nizamabad District (New Ch. 313+507). The Project Road crosses the Godavari River at the major bridge Ch. 289 + 834 (36x20.9m) and has a length of 30.89 km. This Project for up-gradation of the existing road to four lane carriageway with paved shoulders was awarded by the National Highways Authority of India to M/s. Nirmal BOT Limited for a Concession Period of 20 years on BOT (Annuity) basis.

The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

- 3.4.2. Summary of project details of NBL are as follows:

Parameters	Details
Total Length	123.56 Lane Kms
Nos. of Lanes	4
NH / SH	NH 7
State Covered	Telangana
Area (Start and End)	Kadthal-Armur
Project Cost	INR 3,150 Mn
PPP Model	BOT
Project Type	Annuity
Concession Granted by	NHAI
COD Date	22 July 2009
Nos. of Annuities	36 (Semi-annual)
Total Annuity Amount	INR 8,568 Mn
Concession Period (CP)	20 years from Appointed Date

Source: Investment Manager

Note: The State/ National Highway numbers and chainages mentioned in this Report are old Highway numbers and chainages as per the concession agreements. The actual SH/ NH numbers and chainage at site may differ based on subsequent changes.

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- 3.4.3. The corridor forms a part of existing road from Km 278 to 308 (Approx. 30.9 Kms) between Kadthal and Armur of NH-7.

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway 4 Lane with Rigid Pavement	0
2	Total length of Service Roads	14.48 Kms
3	No of Toll Plazas	1
4	No of Bus Bays with Bus Shelters	30
5	Number of Truck Lay Bays	5
6	No of Rest Areas	0
7	No of Major Junctions	3
8	No of Minor Junctions	8
9	No of Vehicular underpasses	4
10	No of Pedestrian underpasses	12
11	No of Major Bridges	2
12	No of Minor Bridges	6
13	No of Hume Pipe Culverts	55
14	No of Box / Slab Culverts	28

Source: Investment Manager

- 3.4.4. The shareholding of NBL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	Highways Infrastructure Trust*	3,15,00,000	100.00%
Total			100.00%

*Includes Shares held by nominees of HIT

Source: Investment Manager

I have been represented by the Investment Manager that there is no change in shareholding pattern from the Valuation Date till the date of this Report.

- 3.4.5. My team had conducted physical site visit of the road stretch of NBL on 15th April 2023. Refer below for the pictures of the road stretch:

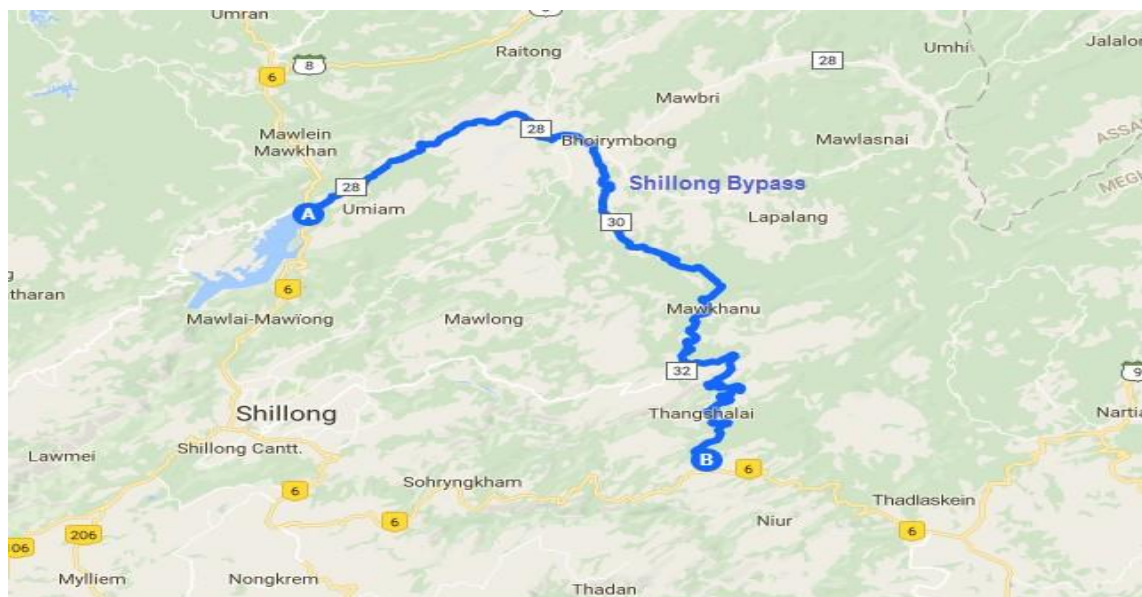


3.5. Shillong Expressway Private Limited (“SEPL”)

- 3.5.1. SEPL has constructed a 2 lane Shillong Bypass Connecting NH-40 and NH-44 from KM 61.80 on NH-40 near Barapani to KM 34.85 on NH-44 on the Shillong bypass section of NH-40 and NH-44 in the state of Meghalaya on Design, Build, Finance, Operate and Transfer (“DBFOT Annuity”) Basis. The entire project road passes through rural & Forest area with very thin inhabitations. Bhoilymbong, the only town in the area which is bypassed.

The project corridor generally runs in rolling/hilly terrain for most of length except in few locations where it is slightly plain. The land use along the project road is mostly forest. It passes through small village settlements like Umroi, Nongtrah, Diengpasoh, Thangshalai, Mawryngkneng etc.

The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

- 3.5.2. Summary of project details of SEPL are as follows:

Parameters	Details
Total Length	97.53 Lane Kms
Nos. of Lanes	2
NH / SH	NH-40/44
State Covered	Meghalaya
Area (Start and End)	Umiam to Mawryngkneng
Project Cost	INR 2,480 Mn
PPP Model	DBFOT
Project Type	Annuity
Concession Granted by	NHAI
COD Date	28 February 2013
Nos. of Annuities	24 (semi-annual)
Total Annuity Amount	INR 5,969 Mn
Concession Period (CP)	15 years from Appointed Date

Source: Investment Manager

- 3.5.3. The corridor forms a part of existing road from KM 61.80 of NH-40 and 34.85 of NH-44.

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway 2 Lane with Rigid Pavement	0
2	Total Length of Main Carriageway 2 Lane with Flexible Pavement	48.77 Kms

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3	Total length of Service Roads	NA
4	No of Toll Plazas	1
5	No of Bus Bays with Bus Shelters	13
6	Number of Truck Lay Bays	0
7	No of Rest Areas	0
8	No of Major Junctions	2
9	No of Minor Junctions	64
10	No of Vehicular underpasses	1
11	No of Pedestrian underpasses	0
12	No of Major Bridges	3
13	No of Minor Bridges	8
14	No of Hume Pipe Culverts	218
15	No of Box / Slab Culverts	22

Source: Investment Manager

3.5.4. The shareholding of SEPL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	Highways Infrastructure Trust*	5,00,000	100.00%
	Total	5,00,000	100.00%

*Includes Shares held by nominees of HIT

Source: Investment Manager

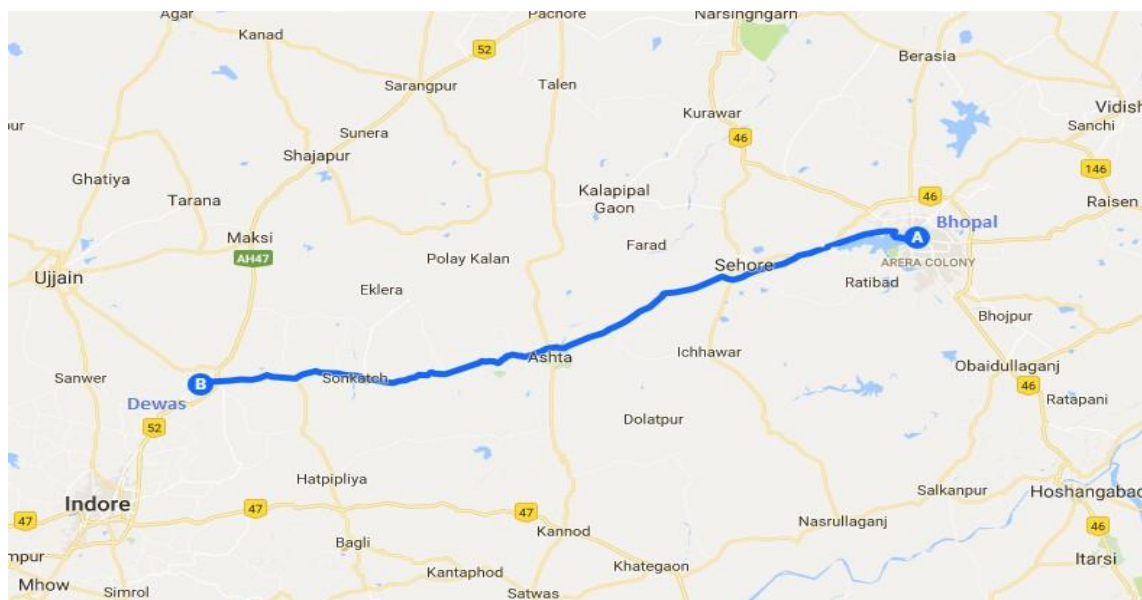
3.5.5. My team had conducted physical site visit of the road stretch of SEPL on 15th April 2023. Refer below for the pictures of the road stretch:



3.6. Dewas Bhopal Corridor Private Limited (“DBCPL”)

- 3.6.1. The MPRDC and DBCPL entered into the concession agreement dated June 30, 2007 (the “Concession Agreement”). DBCPL was awarded a project on BOT basis under the Concession Agreement for reconstruction, strengthening, widening and rehabilitation of the Bhopal-Dewas section including (including all bypasses) from KM 6.8 to KM 151.6 on SH-18 to 4-lane section in the State of Madhya Pradesh.

The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

- 3.6.2. Summary of project details of DBCPL are as follows:

Parameters	Details
Total Length	563.2 Lane Kms
Nos. of Lanes	4
NH / SH	SH-18
State Covered	Madhya Pradesh
Area (Start and End)	Bhopal to Dewas
Project Cost	INR 6,020 Mn
PPP Model	BOT
Project Type	Toll
Concession Granted by	MPRDC
COD Date	10 February 2009
Original Concession Period (CP)	25 years from Appointed Date
Extension (If any)	258 days
Likely End of CP (including extension)	2 nd December 2033

Source: Investment Manager

- 3.6.3. The corridor forms a part of existing road from KM 6.8 to KM 151.6 (Approx. 140.8 Kms) from Bhopal to Dewas in SH-18

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway 4 Lane with Rigid Pavement	0
2	Total Length of Main Carriageway 4 Lane with Flexible Pavement	140.79 Kms
3	Total length of Service Roads	9.09 Kms

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4	No of Toll Plazas	3
5	No of Bus Bays with Bus Shelters	3
6	Number of Truck Lay Bays	1
7	No of Rest Areas	0
8	No of Major Junctions	19
9	No of Minor Junctions	70
10	No of Vehicular underpasses	1
11	No of Pedestrian underpasses	1
12	No of Major Bridges	4
13	No of Minor Bridges	17
14	No of Hume Pipe Culverts	109
15	No of Box / Slab Culverts	53

Source: Investment Manager

3.6.4. The shareholding of DBCPL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	Highways Infrastructure Trust*	1,00,000	100.00%
	Total	1,00,000	100.00%

*Includes Shares held by nominees of HIT

Source: Investment Manager

3.6.5. Projections provided by the Investment Manager consider an extension of ~258 days from original concession end date, owing to:

- ~23 days were extended by MPRDC on account of demonetisation vide order no.02/MPRDC/BOT/D-B/2017/4947 dated 19th June 2017.
- 195 days were extended by MPRDC on account of change in scope vide order no. 11617/Maint/Bhopal-Dewas/MPRDC/2018 dated 25th October 2013.
- 40 days were extended on account of force majeure event due to COVID-19.

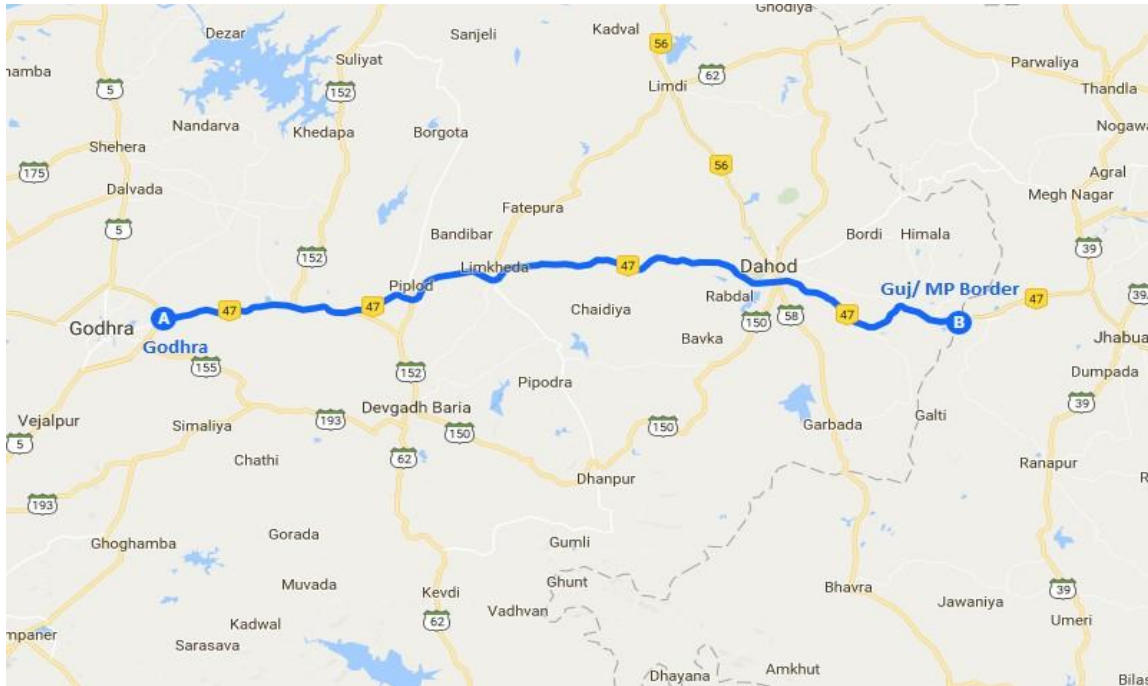
3.6.6. My team had conducted physical site visit of the road stretch of DBCPL on 15th April 2023. Refer below for the pictures of the road stretch:



3.7. Godhra Expressways Private Limited (“GEPL”)

- 3.7.1. The NHA and GEPL entered into the concession agreement dated February 25, 2010 (the “GEPL Concession Agreement”). GEPL operates, on a four-lane highway from Godhra to Gujarat/ Madhya Pradesh Border Section of NH-59 (now NH-47) from KM 129.30 to KM 215.90, in the State of Gujarat, under NHDP Phase III on Design, Build, Finance, Operate and Transfer (“DBFOT”) basis.

The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

- 3.7.2. Summary of project details of GEPL are as follow

Parameters	Details
Total Length	348.41 Lane Kms
Nos. of Lanes	4
NH / SH	NH-59
State Covered	Gujarat
Area (Start and End)	Godhra to Gujarat/ MP Border
Project Cost	INR 7,956 Mn
PPP Model	BOT
Project Type	Toll
Concession Granted by	NHAI
COD Date	31 October 2013
Original Concession Period (CP)	27 years from Appointed Date
Extension (If any)	2,013 days
Likely End of CP (including extension)	3 rd September 2043

Source: Investment Manager

- 3.7.3. The corridor forms a part of existing road from KM 129.3 to 215.9 (Approx. 87.10 Kms) from Godhra to Gujarat-Madhya Pradesh border in NH-59

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway 4 Lane with Rigid Pavement	83.1 Kms
2	Total Length of Main Carriageway 4 Lane with Flexible Pavement	4 kms

3	Total length of Service Roads	19.76 Kms
4	No of Toll Plazas	1
5	No of Bus Bays with Bus Shelters	24
6	Number of Truck Lay Bays	6
7	No of Rest Areas	0
8	No of Major Junctions	4
9	No of Minor Junctions	81
10	No of Vehicular underpasses	4
11	No of Pedestrian underpasses	13
12	No of Major Bridges	6
13	No of Minor Bridges	16
14	No of Hume Pipe Culverts	98
15	No of Box / Slab Culverts	32

Source: Investment Manager

3.7.4. The shareholding of GEPL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	Highways Infrastructure Trust*	2,33,80,840	100.00%
	Total	2,33,80,840	100.00%

*Includes Shares held by nominees of HIT

Source: Investment Manager

- Projections provided by the Investment Manager consider an extension of 2,013 days from original concession end date, owing to the target traffic clause as per Concession Agreement, the same has been approved by IE and 40 days were extended on account of force majeure event due to COVID-19.

3.7.5. Modification in the Concession Period due to target traffic clause as per Concession Agreement

Particulars	Unit	Details
Target date as per CA	Date	1 st October 2019
Target traffic as per CA	PCUs	26,839
Actual Average Traffic	PCUs	18,811
Comparison of average traffic at test date with target	%	-30%
Original concession period	years	27.0
Increase in concession period (Max. upto 20%)	%	20%
Change in concession period due to target traffic clause	days	1,973
Change in concession period due to COVID-19	days	40
Revised concession period	years	32.4
Appointed date	Date	1 st March 2011
Original concession end date	Date	28 th February 2038
Revised concession end date	Date	3 rd September 2043

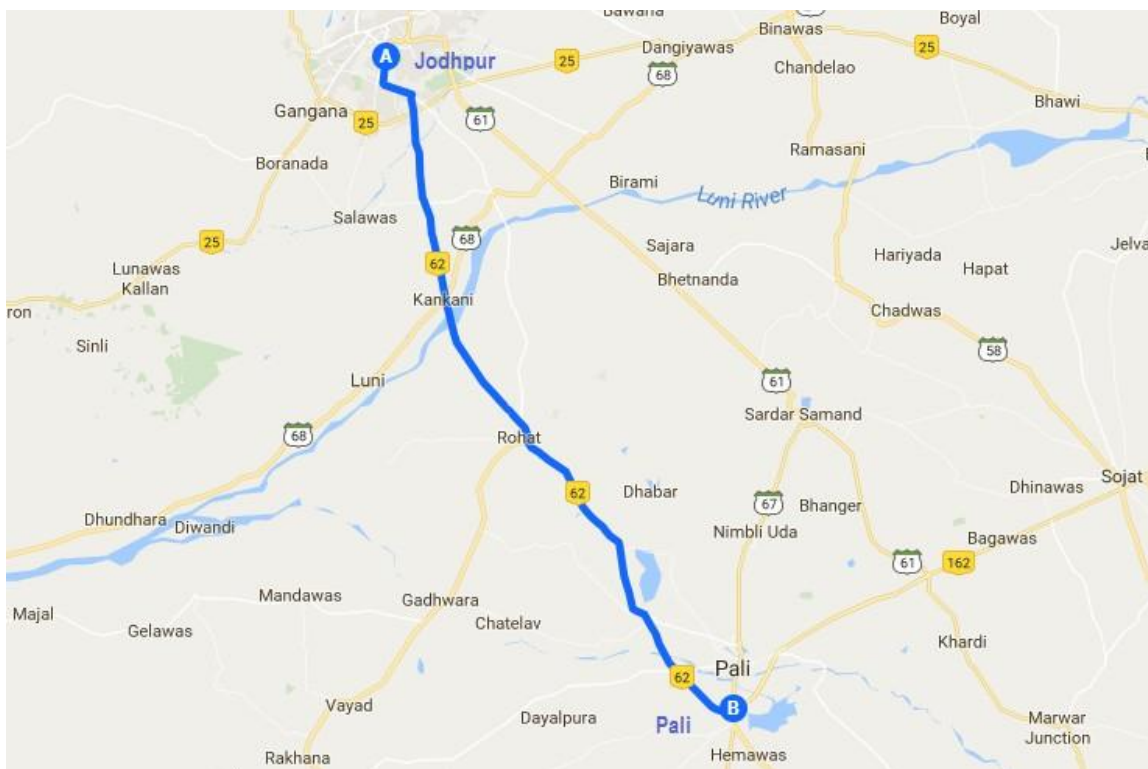
- 3.7.6. My team had conducted physical site visit of the road stretch of GEPL on 15th April 2023. Refer below for the pictures of the road stretch:



3.8. Jodhpur Pali Expressway Private Limited (“JPEPL”)

- 3.8.1. The PWD(R) and JPEPL entered into the concession agreement dated February 28, 2013 (the “Concession Agreement”). JPEPL was engaged, on a design, build, finance, operate and transfer basis, under the Concession Agreement for the development and operation of Jodhpur-Pali section of NH 65 from KM 308.00 to KM 366.00 and including bypass to Pali starting from KM 366.00 of National Highway 65, connecting National Highway 14 at KM 114 in State of Rajasthan.

The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

3.8.2. Summary of project details of JPEPL are as follows:

Parameters	Details
Total Length	286.14 Lane Kms
Nos. of Lanes	4
NH / SH	NH-65
State Covered	Rajasthan
Area (Start and End)	Jodhpur to Pali
Project Cost	INR 4,140 Mn
PPP Model	DBFOT
Project Type	Toll
Concession Granted by	Public Works Department, Government of Rajasthan
COD Date	31 October 2014
Original Concession Period (CP)	25 years from Appointed Date
Extension (If any)	1,884 days
Likely End of CP (including extension)	13 th November 2043

Source: Investment Manager

3.8.3. The corridor forms a part of existing road from KM 308 to 366 & includes bypass to Pali starting from KM 366 of NH-65, connecting NH-14 at KM 114 in the state of Rajasthan.

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway 4 Lane with Rigid Pavement	0
2	Total Length of Main Carriageway 4 Lane with Flexible Pavement	71.54 Kms
3	Total length of Service Roads	11.57 Kms
4	No of Toll Plazas	2
5	No of Bus Bays with Bus Shelters	12
6	Number of Truck Lay Bays	1
7	No of Rest Areas	0
8	No of Major Junctions	12
9	No of Minor Junctions	33
10	No of Vehicular underpasses	1
11	No of Pedestrian underpasses	2
12	No of Major Bridges	6
13	No of Minor Bridges	6
14	No of Hume Pipe Culverts	50
15	No of Box / Slab Culverts	14

Source: Investment Manager

3.8.4. The shareholding of JPEPL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	Highways Infrastructure Trust*	61,640	100.00%
	Total	61,640	100.00%

*Includes Shares held by nominees of HIT

Source: Investment Manager

3.8.5. Projections provided by the Investment Manager consider an extension of ~1,884 days from original concession end date, owing to:

- ~1,825 days were extended due to the target traffic clause as per Concession Agreement; the traffic count is due in FY29, FY30 and FY31.

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- ~59 days were extended on account of force majeure event due to COVID-19.

3.8.6. Modification in the Concession Period due to target traffic clause as per Concession Agreement

As per the Clause 29 of the concession agreement between NHAI and JPEPL provided to us by the Investment Manager, if the actual traffic falls short or exceeds target traffic on a defined date, the concession period shall be revised subject to calculation specified therein. The target date and target traffic as provided in the concession agreement along with the projected traffic as on the target date are given below:

Particulars	Unit	Details
Target date as per CA	Date	1 st January 2030
Target traffic as per CA	PCUs	35,938
Estimated Average Traffic on Target Date	PCUs	27,612
Comparison of average traffic at test date with target	%	-23%
Original concession period	years	25.0
Increase in concession period (Max. upto 20%)	%	20%
Change in concession period due to target traffic clause	days	1,825
Change in concession period due to COVID-19	days	59
Revised concession period	years	30.0
Appointed date	Date	16 th September 2013
Original concession end date	Date	15 th September 2038
Revised concession end date	Date	13 th November 2043

- 3.8.7. My team had conducted physical site visit of the road stretch of JPEPL on 15th April 2023. Refer below for the pictures of the road stretch:

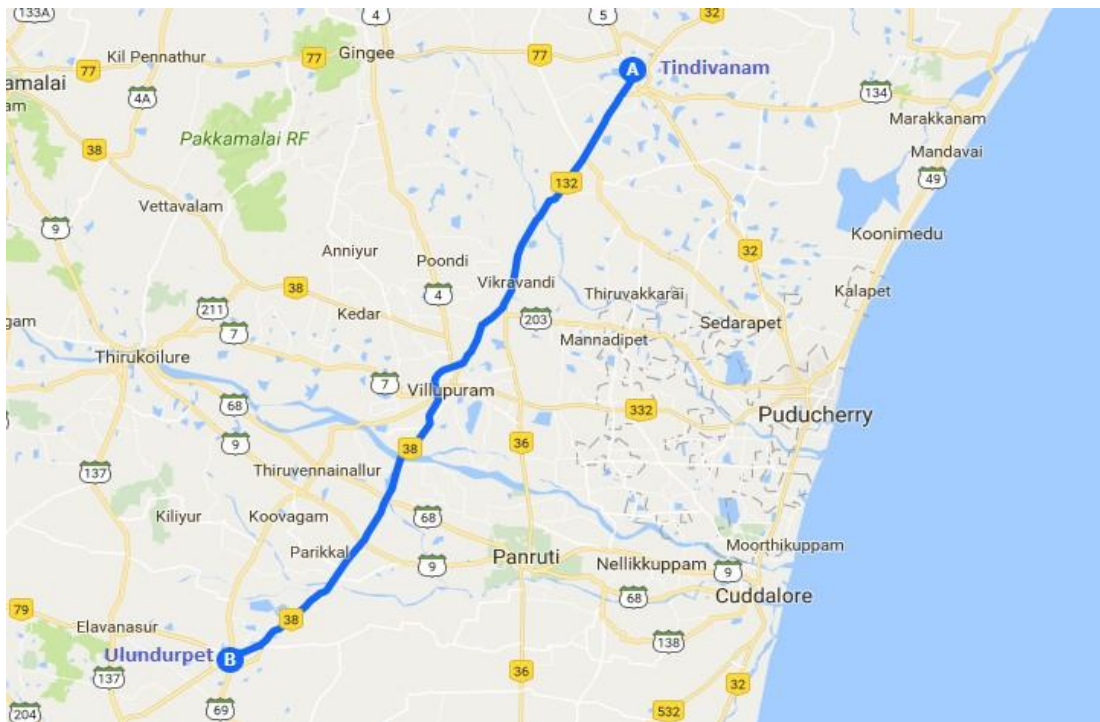


3.9. Ulunderpet Expressways Private Limited (“UEPL”)

- 3.9.1. The project road Tindivanam-Ulunderpet, is part of 472 km long National Highway No.45 (NH-45) or Great Southern Trunk Road (GST Road) which starts from Kathipara junction in Guindy area (Chennai City) and extends up to Theni (headquarters of Theni District).

It acts as one of the primary life-line corridor in the state of Tamil Nadu connecting the State Capital (Chennai city) with various industrial towns and tourist places in the southern, eastern and western parts of Tamil Nadu. The important towns which en-route the NH45 are Tambaram, Tindivanam, Viluppuram, Perambalur, Tiruchirapalli, Dindigul and Theni.

The map below illustrates the location of the Project and the corridor it covers:



Source: Investment Manager

- 3.9.2. Summary of project details of UEPL are as follows:

Parameters	Details
Total Length	291.6 Lane Kms
Nos. of Lanes	4
NH / SH	NH-45
State Covered	Tamil Nadu
Area (Start and End)	Tindivanam to Ulunderpet
Project Cost	INR 10,151 Mn
PPP Model	BOT
Project Type	Toll
Concession Granted by	NHAI
COD Date	23 July 2009
Original Concession Period (CP)	20 years from Appointed Date
Extension (If any)	160 days
Likely End of CP (including extension)	25 th March 2027

Source: Investment Manager

- 3.9.3. The corridor forms a part of existing road from Tindivanam (km 121.00) and ends at just north of Sengurchi (km 193.90) in NH-45.

Sr. No.	Salient Features	Units
1	Total Length of Main Carriageway 4 Lane with Rigid Pavement	0
2	Total Length of Main Carriageway 4 Lane with Flexible Pavement	72.9 Kms
3	Total length of Service Roads	36.4 Kms
4	No of Toll Plazas	1
5	No of Bus Bays with Bus Shelters	34
6	Number of Truck Lay Bays	3
7	No of Rest Areas	0
8	No of Major Junctions	4
9	No of Minor Junctions	97
10	No of Vehicular underpasses	3
11	No of Pedestrian underpasses	6
12	No of Major Bridges	6
13	No of Minor Bridges	14
14	No of Hume Pipe Culverts	56
15	No of Box / Slab Culverts	66

Source: Investment Manager

- 3.9.4. The shareholding of UEPL as on Valuation Date is as follows:

Sr. No.	Particulars	No. of Shares	%
1	Highways Infrastructure Trust*	26,45,52,365	100%
	Total	26,45,52,365	100.00%

*Includes Shares held by nominees of HIT

Source: Investment Manager

- 3.9.5. Projections provided by the Investment Manager consider an extension of 160 days from original concession end date, owing to:

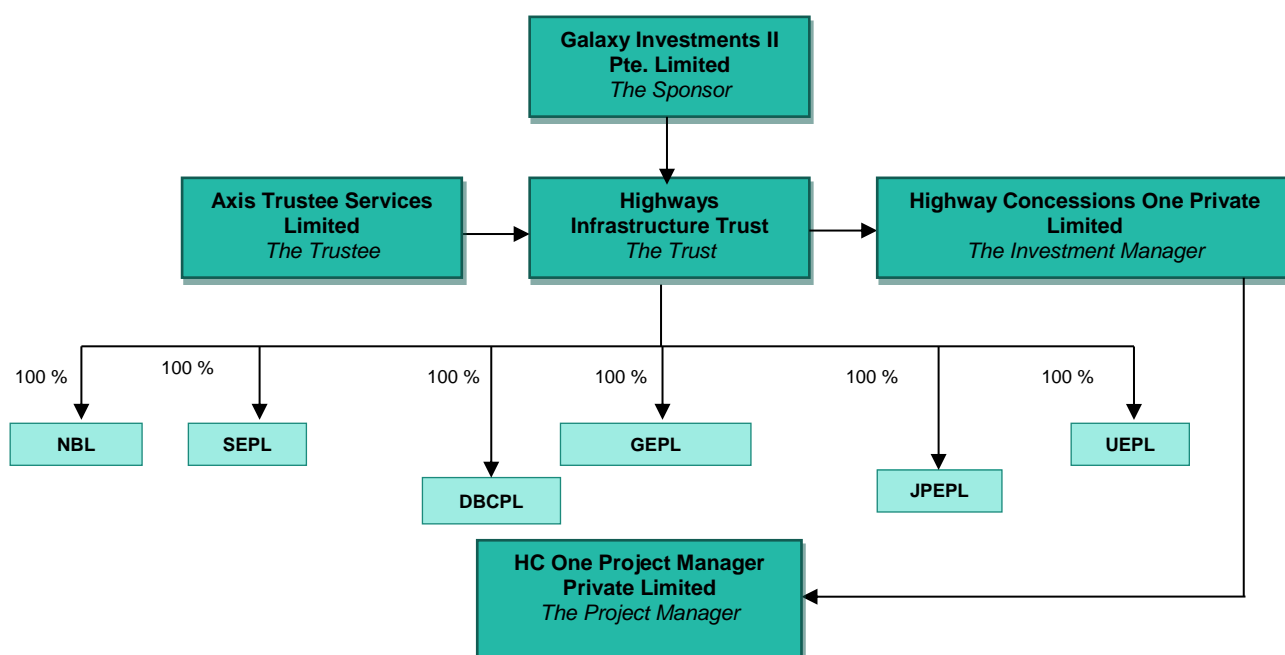
- 98 days were extended by NHAI on account of delay in toll notification vide order no. NHAI/11015//71/RO Chennai/2009/3811 dated 27th September 2013.
- 23 days were extended on account of demonetisation.
- 15 days on account of flood.
- 24 days were extended on account of force majeure event due to COVID-19.

- 3.9.6. My team had conducted physical site visit of the road stretch of UEPL on 15th April 2023. Refer below for the pictures of the road stretch:



4. Structure of the Trust as at 31st March 2023

4.1. Following is the Structure of the Trust as at 31st March 2023.



Source: Investment Manager

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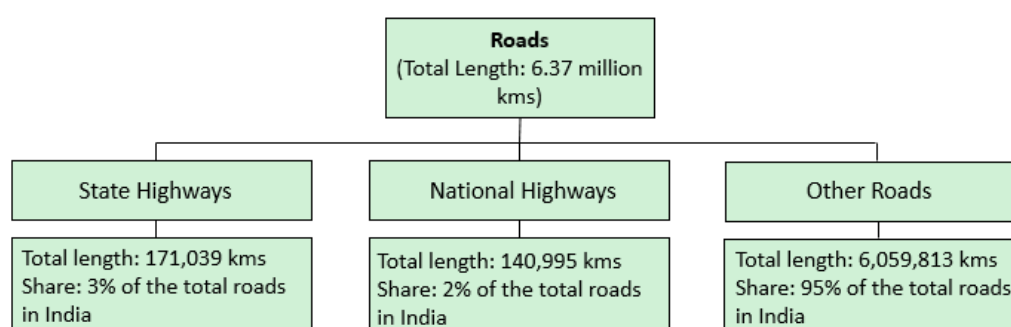
5. Overview of the Industry

5.1 Road Network in India

- 5.1.1 The road infrastructure is an important determinant of economic growth in India and it plays a significant role in the economy's overall development process.
- 5.1.2 Creation and operation of quality road infrastructure continue to be major requirements for enabling overall growth and development of India in a sustained manner.
- 5.1.3 Bridging of existing infrastructure gaps and creating additional facilities to cater to the increasing population are equally important. Apart from providing connectivity in terms of enabling movement of passengers and freight, roads act as force multipliers in the economy.
- 5.1.4 Further, roads play a significant role in times of natural calamities, wars and other such events in terms of timely evacuation of the impacted population, carriage of relief material and other associated movements. Government takes cognisance of this requirement and road infrastructure remains to be a focus area.

5.2 Road Network in India

- 5.2.1 India has the second largest road network in the world, spanning over 6.37 million kms. Over 64.5% of all goods in the country are transported through roads, while 90% of the total passenger traffic uses road network to commute.



Source: IBEF Roads Report, November 2022

- 5.2.2 Out of this around 1.41 lakh km are National Highways ("NHs"). Significantly, NHs constitute around 2 per cent of the total road network in the country but carry about 40% of the road traffic. The density of India's highway network at 1.89 km of roads per square kilometer of land – is similar to that of the France (1.98) and much greater than China's (0.49) or USA's (0.68).

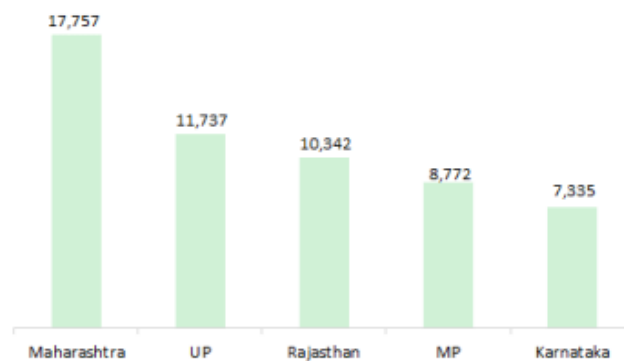
5.3 Government Agencies for Road Development

- 5.3.1 The Ministry of Road Transport & Highway ("MoRTH") is responsible for development of Road Transport and Highways in general and construction & maintenance of National Highways.
- 5.3.2 The National Highways Authority of India ("NHAI") is an autonomous agency of the Government of India, set up in 1988 and is responsible for implementation of National Highways Development Project ("NHDP").
- 5.3.3 The NHDP in the context of NHs is nearing completion- in seven phases. Later, the other highway development programmes like Special Accelerated Road Development Programme for Development of Road Network in North Eastern States (SARDP- NE) and National Highways Interconnectivity Improvement Project (NHIIP) were also taken up by MoRTH. Further, Bharatmala Pariyojana is ongoing. For majority of the projects under NHDP and Bharatmala Pariyojana, NHAI is the implementation agency. Other NH related programmes/works are being implemented

through agencies like National Highways Infrastructure Development Corporation Limited (NHIDCL), State Public Works Departments (PWDs), State Road Development Corporations and the Border Road Organization.

- 5.3.4 Roads in the jurisdiction of state governments are under different categories like State Highways (“SHs”) and Major District Roads. They are being developed/ upgraded through State PWDs and State Road Development Corporations. Pradhan Mantri Gramm Sadak Yojana is being implemented for rural roads through the Ministry of Rural Affairs with active participation by state governments. Further, roads within urban areas are maintained/ developed mostly with PWDs and Urban Local Bodies.
- 5.3.5 State Governments have a significant role to play in developing the SHs, Major District Roads, Other District Roads to ensure the last mile connectivity. States have varying levels of maturity in terms of road infrastructure development due to issues such as inadequate identification and prioritization of projects, funding shortfall, limited institutional capacity to implement projects, etc.

Top 5 states by length of NHs in India (in Km)



Source: MoRTH, Government of India.

5.4 Trend of Road and Highways Construction

- 5.4.1 The length of National Highways awarded has almost doubled in the years FY15 to FY18 compared to FY11 to FY14. Length of NHs constructed has increased by 70% during the same period. This pace is expected to gain further ground, with the ambitious targets set by the ministry and the implementation of the Bharatmala Pariyojana as MORTH is planning to construct around 83,677 km of national highways at an estimated cost of Rs 10.63 trillion (US\$ 130 billion) after factoring in cost escalations up to December 2021.
- 5.4.2 India has become the fastest highway developer in the world with 28.64 kms of highways built each day in 2021-22 and plans to construct 18,000 kilometres of national highways in 2022-23 at a record speed of 50 kms per day.
- 5.4.3 Under the Union Budget 2022-23, the Government of India has allocated Rs. 199,107 crore (US\$ 26.04 billion) to the Ministry of Road Transport and Highways.
- 5.4.4 The GST on construction equipment has been reduced to 18% from 28%, which is expected to give a boost to infrastructure development in the country.
- 5.4.5 The NHDP is a program to upgrade, rehabilitate and widen major highways in India to a higher standard. The project was started in 1998 to be implemented in 7 phases.
- 5.4.6 With the launch of Bharatmala project, 10,000 km of highway construction left under NHDP was merged with Phase I of the Bharatmala project.

- 5.4.7 The Indian government launched Gati Shakti-National Master Plan, which has consolidated a list of 81 high impact projects, out of which road infrastructure projects were the top priority. The major highway projects include the Delhi-Mumbai expressway (1,350 kilometres), Amritsar-Jamnagar expressway (1,257 kilometres) and Saharanpur-Dehradun expressway (210 kilometres).
- 5.4.8 The main aim of this program is a faster approval process by digitizing the process through a dedicated Gati shakti portal.
- 5.4.9 In December 2021, the government set a highway monetization target of Rs. 2 trillion (US\$ 26.20 billion) for the next 3 years.
- 5.4.10 The Ministry of Road Transport and Highways awarded road projects with a total length of 12,731 kms in FY22 as against 10,964 km in FY 21.
- 5.4.11 In FY 22, 10,457 kms of highways have been constructed against 13,298 kms of highway constructed in FY 21 across India.
- 5.4.12 The Government of India has allocated Rs. 111 lakh crore (US\$ 13.14 billion) under the National Infrastructure Pipeline for FY 2019-25. The Roads sector is expected to account for 18% capital expenditure over FY 2019-25.
- 5.4.13 NHAI is planning to raise Rs. 40,000 crore (US\$ 5.72 billion) to monetise its highway assets through Infrastructure Investment Trust (InvIT). Launched in November 2021, NHAI InvIT had raised Rs 8,011 crore for NHAI in its maiden round, with initial portfolio of five operating toll roads of aggregate length of 390 km.
- 5.4.14 The development of market for roads and highways is projected to exhibit a CAGR of 36.16% during 2016-2025, on account of growing government initiatives to improve transportation infrastructure in the country.

Details of national highways awarded (by NHAI) and constructed in India (KMs):



5.5 Implementation of important projects and expressways:

5.5.1 Bharatmala Pariyojna

Bharatmala Pariyojana is a new umbrella program for the highways sector that focuses on optimizing efficiency of freight and passenger movement across the country by bridging critical infrastructure gaps through effective interventions like development of Economic Corridors, Inter Corridors and Feeder Routes, National Corridor Efficiency Improvement, Border and International connectivity roads, Coastal and Port connectivity roads and Green-field expressway.

The Bharatmala Pariyojana envisages development of about 26,000 km length of Economic Corridors, which along with Golden Quadrilateral (GQ) and North-South and East-West (NS-EW) Corridors are expected to carry majority of the Freight Traffic on roads.

A total length of 34,800 km in road projects have been proposed to be constructed with an estimated outlay of Rs 5.35 trillion (US\$ 74.15 billion) under Bharatmala Pariyojana Phase-I over a five year period (2017-18 to 2021-22). In Bharatmala Pariyojana, 60% projects on Hybrid Annuity Mode, 10% projects on BOT (Toll) Mode and 30% projects on EPC mode have been envisaged respectively.

Components under Bharatmala Pariyojana Phase-I are as given below:

Component	Length (Km)	Cost (INR Crore)
Economic corridors development	9,000	1,20,000
Inter-corridor & feeder roads	6,000	80,000
National Corridors Efficiency	5,000	1,00,000
Border & International connectivity	2,000	25,000
Coastal & port connectivity roads	2,000	20,000
Expressways	800	40,000
Sub Total	24,800	3,85,000
Other works - under NHDP	10,000	1,50,000
Total	34,800	5,35,000

Source: Ministry of Road Transport and Highways, Government of India

The completion cost of Phase-I is now estimated 10.63 trillion (US\$ 130 billion) after factoring in cost escalations up to December 2021 and is 99% higher than the initial estimates owing to substantial rise in land acquisition cost, and steep increase in input costs. It is expected to be completed in FY2028, a delay of six years from the initial envisaged completion date of FY2022. During the last seven years, around 60% (20,632 km vs 34,800 km) of highway length has been awarded as of December 2021, and ~23% of the total length completed till March 2022

5.5.2 Char Dham Vikas Mahamarg Pariyojna:

This project envisages development of easy access to the four dhams in India – Gangotri, Yamunotri, Kedarnath and Badrinath. Development of this route of 889 km route is expected at an estimated cost of INR 12,000 Crores.

5.5.3 Eastern peripheral and western peripheral expressway

These two projects will connect NH-1 and NH-2 from western and eastern side of Delhi.

5.5.4 Setu Bharatam:

This project aims to replace crossings on NHs with Road Over Bridges and Road Under Bridges. It is projected to construct 174 such structures.

5.5.5 To further augment road infrastructure, more economic corridors are also being planned by Government of India as revealed in Budget 2021-22.

- 3,500 km of National Highway works in the state of Tamil Nadu at an investment of INR 1.03 lakh Crores. These include Madurai-Kollam corridor, Chittoor-Thatchur corridor. Construction will start next year.
- 1,100 km of National Highway works in the State of Kerala at an investment of INR 65,000 Crores including 600 km section of Mumbai Kanyakumari corridor in Kerala.
- 675 km of highway works in the state of West Bengal at a cost of INR 25,000 Crores including upgradation of existing road-Kolkata –Siliguri.

- d. National Highway works of around INR 19,000 Crores are currently in progress in the State of Assam. Further works of more than INR 34,000 Crores covering more than 1300 kms of National Highways will be undertaken in the State in the coming three years.
- e. In the Union Budget of 2022-23, the increase in Budget was a whopping 68% compared to the last year and the government plans to complete 25,000 kilometres of National highways.

5.6 Opportunities in road development & maintenance in India

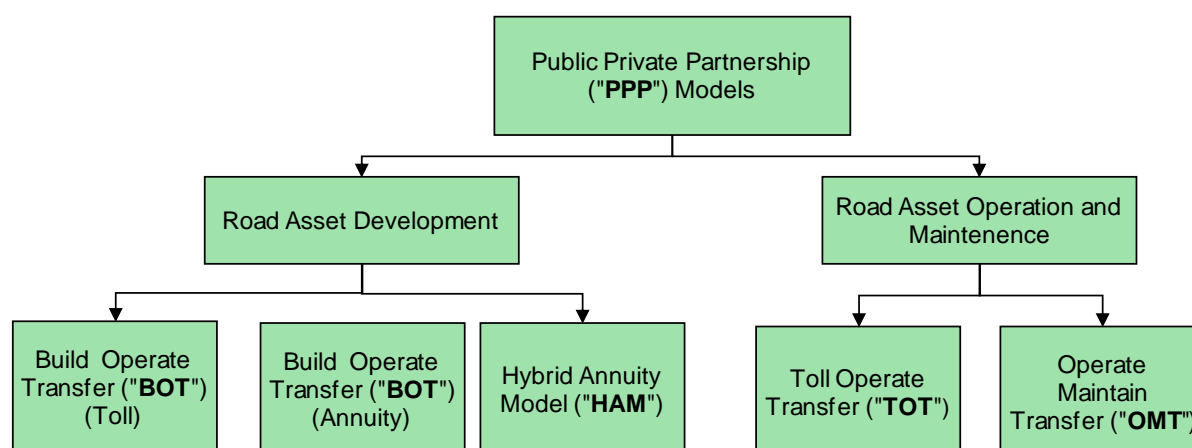
- a. India has joined the league of 15 of global alliance which will work towards the ethical use of smart city technologies
- b. The Government aims to construct 65,000 kms of national highways at a cost of Rs. 5.35 lakh crore (US\$ 741.51 billion).
- c. The government also aims to construct 23 new national highways by 2025.
- d. Road building in India is second least expensive in Asia.
- e. Andhra Pradesh will spend US\$ 296.05 million to build 8,970 kms of roads.
- f. In February 2022, NHAI rolled out a plan to construct 5,795 kilometres of highways that will connect 117 districts. The plan was worth Rs. 1 trillion (US\$ 13.09 billion).

5.7 Public Private Partnership ("PPP") Models of road development and maintenance in India

5.7.1 India has a well-developed framework for Public-Private-Partnerships (PPP) in the highway sector. PPP has been a major contributor to the success story of the roads and highway sector in India. With the emergence of private players over the last decade, the road construction market has become fragmented and competitive. Players bidding for projects also vary in terms of size. PPP modes have been used in India for both development and operation & maintenance of road assets.

NHAI is planning to award 500 km of the 6,500 km target for FY23 through BOT mode. It may give minimum toll revenue guarantee to make it easier for contractors to bid for BOT projects.

5.7.2 In August 2020, the Government of India revised the Model Concession Agreement for BOT projects to plug delays by imposing a deadline on the NHAI and incentivising timely work by concessionaires. According to revised norms, the NHAI will have to hand over 90% of the project land (vacant and ready to build) to private developers, thus creating a more market-friendly sector and attracting more private players.



5.7.3 Road Asset Development Models

- **BOT Toll**

- In a BOT toll project, the concessionaire is responsible for designing, building, financing, operating, maintaining, tolling and transferring the project to the relevant authority at the end of the concession period. The concession period is project specific but is usually for 20-25 years. In BOT Toll model, the concessionaire earns revenue primarily in the form of toll revenue which in turns depends on the traffic on the road stretch. Toll rates are regulated by the government through rules.

- **BOT Annuity**

- Similar to a BOT Toll projects, in BOT Annuity project, the concessionaire is responsible for designing, building, financing, operating, maintaining, tolling and transferring the project to the relevant authority at the end of the concession period. However, in these projects, the right to collect toll on road stretch lies with the government. The concessionaire earns revenue in the form of pre-determined semi-annual annuity payments.

- **HAM**

- Similar to a BOT projects, in HAM project, the concessionaire is responsible for designing, building, financing, operating, maintaining, tolling and transferring the project to the relevant authority at the end of the concession period. However, in these projects, the right to collect toll on road stretch lies with the government. The construction period for HAM projects is project specific and a fixed operation period of 15 years.

5.8 Government Investment in the Sector

- 5.8.1 Under Union Budget 2022-23, the Government of India has allocated Rs. 2.7 Lakh crore to the Ministry of Road Transport and Highways.
- 5.8.2 During 2019-23, NHAI is expected to generate Rs. 1 trillion (US\$ 14.30 billion) annually from toll and other sources.
- 5.8.3 NHAI is planning to raise Rs. 40,000 crore (US\$ 5.72 billion) to monetize its highway assets through Infrastructure Investment Trust (InvIT). Five operational roads with an estimated enterprise value of INR 5,000 crores have been transferred to the NHAI InvIT.

5.9 Growth Drivers

5.9.1 Robust Demand :

Growing domestic trade flows have led to rise in commercial vehicles and freight movement; supported by rise in production of commercial vehicles to 752,022 in FY20 which commands stronger road network in India. Higher individual discretionary spending has led to increased spending on two and four wheelers. Domestic sales of passenger vehicles, three-wheelers and two-wheelers, reached 3,069,499, 260,995, and 13,466,412 units, respectively, in FY22. Road's traffic share of the total traffic in India has grown from 13.8% to 65% in freight traffic and from 32% to 90% in passenger traffic over 1951–2019.

5.9.2 Increasing Investment :

Huge investment have been made in the sector with total investment increasing more than three times from Rs. 51,914 crore (US\$ 7.43 billion) in 2014-15 to Rs. 158,839 crore (US\$ 22.73 billion) in 2018- 19. Between FY16 and FY21, budget outlay for road transport and highways increased at a robust CAGR of 13.10%. In 2019-20. Under the Union Budget 2022-23, the Government of India has allocated Rs. 199,107.71 crore (US\$ 26.04 billion) to the Ministry of Road Transport and Highways.

5.9.3 Policy Support :

100% FDI is allowed under automatic route subject to applicable laws and regulations, standardized process for bidding and tolling. Under Union Budget 2022-23, allocation to the rural roads construction scheme PMGSY raised by 36 per cent to Rs 19,000 crore for the fiscal year 2022-23. Government of India has set up India Infrastructure Finance Company (IIFCL) to provide long-term funding for infrastructure projects.

5.10 Challenges & Issues in the Sector

5.10.1 Land Acquisition Delays & Cost :

- Land acquisition cost has increased more than 30% since 2017, primarily due to enhanced compensation payment requirements as per 'The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013'.
- Delay in pre-construction activities (such as land acquisition, relocation) affects project timelines. Land acquisition for road projects involves various stages. Each stage involves a number of stakeholders and regulatory bodies. Thus processes consume considerable time.

5.10.2 Regulatory Approvals & Disputes :

- Road development process requires a number of approvals such as environmental clearance, forest clearance, railways clearance, etc. Each of these activities takes considerable time and non-adherence to timelines result in cost overruns due to delays.
- Claims arising out of disputes between the concessionaire/ contractor and the government authorities are also a significant cost which can lead to large liabilities.

5.10.3 Operational Issues :

- Uncertainty of toll revenue collection and variation of collected toll revenue compared to projected levels as Actual traffic is much less than the anticipated traffic.
- Often unforeseen weather conditions require unplanned O&M, over and above the routine and periodic maintenance activities. This results in enhanced O&M expenses. The increase in O&M costs is also affecting the project returns.

5.10.4 Financing road construction projects :

- In the case of toll motorways, the challenge of financing construction projects is different but still remains. Traditionally, the construction of toll motorways is a profitable investment but in the times of recession, funding may be rare or nonexistent.
- Powerful national economies may be able to efficiently tackle the problem but weaker economies can hardly find the financing sources for road construction projects.

5.10.5 Climate Change

- The road sector is vulnerable to climate change impacts. Climate change and extreme weather events pose a significant challenge to the safety, reliability, effectiveness and sustainability of road transportation systems. Tsunami waves, wildfires, floods and hurricanes constitute a big risk for passengers, vehicles and goods, as well as for the integrity of the transport infrastructure.
- Since reliable road transport is an essential driver of economic growth and social wellbeing worldwide, national road authorities and motorway operators must adapt the infrastructure to climate change and increase the resilience of road transport to extreme weather

5.11.1 Economy and cost effectiveness :

- Among all transport modes, road transport occupies a significant place in short- and medium distance travel operations. However, the unit cost of transportation (per ton × km), compared with other modes of transport, remains high and is getting higher and cost-ineffective as the travel distance increases.
- Road transport cost comprises direct costs (fuel, capital depreciation, maintenance, motorway tolls, ferry fares and wages) and external costs (noise, congestion, infrastructure damages, health and environmental issues).

5.11 Recent Initiatives by Government

5.11.1 Bhoomi Rashi – Land Acquisition Portal

The ministry has corroborated with the National Informatics Centre, to create Bhoomirashi, a web portal which digitises the cumbersome land acquisition process, and also helps in processing notifications relating to land acquisition online. Processing time, which was earlier two to three months has come down to one to two weeks now.

5.11.2 FASTag – Electronic Toll Collection

National Electronic Toll Collection (NETC) system, has been implemented on pan India basis in order to remove bottlenecks and ensure seamless movement of traffic and collection of user fee as per the notified rates, using passive Radio Frequency Identification (RFID) technology. India saw a 46 per cent growth in electronic toll collection through FASTags on highways in FY 22 from INR 34,778 Crores in FY 21 to INR 50,855 Crores in FY22. In 2021, the total amount collected through electronic toll was Rs 34,778 crore. Similarly, the number of FASTag transactions also witnessed a growth of around 48 per cent in 2022 as compared to that in 2021. The number of FASTag transactions in 2021 and 2022 was 219 crore and 324 crore, respectively.

5.11.3 Revival of languishing projects

Projects which were languishing for a number of years have been attempted to be revived, with the help of a number of policy measures taken by the government. Some of the policy measures like Premium deferment in stressed projects, extension of concession period for languishing projects to the extent of delay not attributable to concessionaires, One Time Capital Support for physical completion of languishing projects that have achieved at least 50 per cent physical progress, through one time fund infusion by NHAI, subject to adequate due diligence on a case to case basis.

5.11.4 Rural development

Under the Union Budget 2022-23, the Government of India allocated Rs. 19,000 (US\$ 2.37 billion) for Pradhan Mantri Gram Sadak Yojana (PMGSY), a 36% rise over the earlier estimate of INR 15,000 in Union Budget 2021-22. Under the Union Budget 2020-21, the Government of India has allocated Rs. 19,500 crore (US\$ 2.79 billion) for Pradhan Mantri Gram Sadak Yojana (PMGSY).

5.11.5 Improve safety standards

In October 2021, the government announced rules to improve road safety, such as fixed driving hours for commercial truck drivers and a mandate to install sleep detection sensors in commercial vehicles. In October 2020, a memorandum of understanding (MoU) has been signed with the National Highways Authority of India (NHAI) by Guru Nanak Dev University (GNDU) to conduct advanced research on various aspects, including highway architecture, protection and revitalisation. The GNDU will undertake studies on ~137 km length of the National Highways passing through Pathankot, Gurdaspur and Amritsar districts.

5.11.6 Portfolios in roads & highways sector

In October 2020, the National Investment and Infrastructure Fund (NIIF) is making progress towards integrating its road and highway portfolio. The NIIF has acquired Essel Devanahalli Tollway and Essel Dichpally Tollway through the NIIF master fund. These road infra-projects will be supported by Athaang Infrastructure, NIIF's proprietary road network, assisted by a team of established professionals with diverse domain expertise in the transport field.

5.11.7 International Tie-ups

In December 2020, the Ministry of Road Transport and Highways signed an MoU with the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology of the Republic of Austria on technology cooperation in the road infrastructure sector.

5.11.8 Encourage private funding to reduce finance constraints

- From April 2000 to September 2022, the construction sector in India attracted 26 billion U.S. dollars in foreign direct investments (FDI) for construction development. Another 28 billion U.S. dollars went into construction activities. Maif 2 Investments India Pvt. Ltd. became the first-largest foreign investment in Indian roads sector under toll-operate-transfer (TOT) mode worth Rs. 9,681.5 crore (US\$ 1.50 billion).
- In October 2020, the Asian Development Bank (ADB) and the Government of India signed a US\$ 177 million loan to upgrade 450 kms of state highways and major district roads in Maharashtra.
- In January 2021, the Government of India and New Development Bank (NDB) signed two loan agreements for US\$ 646 million for upgrading the state highway and district road networks in Andhra Pradesh.
- In August 2020, the Government of India revised the Model Concession Agreement for BOT projects to plug delays by imposing a deadline on the NHAI and incentivising timely work by concessionaires.
- According to revised norms, the NHAI will have to hand over 90% of the project land (vacant and ready to build) to private developers, thus creating a more market-friendly sector and attracting more private players.

Sources: IBEF Roads Report, November 2022; KPMG Report - Roads and Highway Sector; website of Ministry of Road Transport and Highways, Government of India.

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6. Valuation Methodology and Approach

- 6.1. The present valuation exercise is being undertaken in order to derive the fair EV of the SPVs.
- 6.2. The valuation exercise involves selecting a method suitable for the purpose of valuation, by exercise of judgment by the valuers, based on the facts and circumstances as applicable to the business of the company to be valued.
- 6.3. There are three generally accepted approaches to valuation:
 - (a) "Cost" approach
 - (b) "Market" approach
 - (c) "Income" approach

6.4. **Cost Approach**

The cost approach values the underlying assets of the business to determine the business value. This valuation method carries more weight with respect to holding companies than operating companies. Also, cost 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.

Net Asset Value ("NAV") Method

The NAV Method under Cost Approach considers 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 a company.

The NAV Method is appropriate in a case where the main strength of the business is its asset backing rather than its capacity or potential to earn profits. This valuation approach is also used in cases where the firm is to be liquidated, i.e. it does not meet the "Going Concern" criteria.

As an indicator of the total value of the entity, the NAV method has the disadvantage of only considering the status of the business at one point in time.

Additionally, NAV does not properly take into account the earning capacity of the business or any intangible assets that have no historical cost. In many aspects, NAV represents the minimum benchmark value of an operating business.

6.5. **Market Approach**

Under the Market approach, the valuation is based on the market value of the company in case of listed companies, and comparable companies' trading or transaction multiples for unlisted companies. The Market approach generally reflects the investors' perception about the true worth of the company.

Comparable Companies Multiples ("CCM") Method

The value is determined on the basis of multiples derived from valuations of comparable companies, as manifest in the 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.

Comparable Transactions Multiples ("CTM") Method

Under the CTM Method, the value is determined on the basis of multiples derived from valuations of similar transactions in the industry. Relevant multiples need to be chosen carefully and adjusted for differences between the circumstances. Few of such multiples are EV/Earnings before Interest, Taxes, Depreciation & Amortization ("**EBITDA**") multiple and EV/Revenue multiple.

Market Price Method

Under this method, the market price of an equity share of the company 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.

6.6. Income Approach

The income approach is widely used for valuation under "Going Concern" basis. It focuses on the income generated by the company in the past as well as its future earning capability. The Discounted Cash Flow Method under the income approach seeks to arrive at a valuation based on the strength of future cash flows.

DCF Method

Under DCF Method value of a company can be assessed using the FCFF or Free Cash Flow to Equity Method ("FCFE"). Under the DCF method, the business is valued by discounting its free cash flows for the explicit forecast period and the perpetuity value thereafter. The free cash flows represent the cash available for distribution to both, the owners and creditors of the business. The free cash flows in the explicit period and those in perpetuity are discounted by the WACC. The WACC, based on an optimal vis-à-vis actual capital structure, is an appropriate rate of discount to calculate the present value of future cash flows as it considers equity-debt risk by incorporating debt-equity ratio of the firm.

The perpetuity (terminal) value is calculated based on the business' 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' future operations. The EV (aggregate of the present value of explicit period and terminal period cash flows) so derived, is further reduced by the value of debt, if any, (net of cash and cash equivalents) to arrive at value to the owners of the business.

Conclusion on Valuation Approach

- 6.7. It is pertinent to note that the valuation of any company or its assets is inherently imprecise and is subject to certain uncertainties and contingencies, all of which are difficult to predict and are beyond my control. In performing my analysis, I have made numerous assumptions with respect to industry performance and general business and economic conditions, many of which are beyond the control of the SPVs. In addition, this valuation will fluctuate with changes in prevailing market conditions, and prospects, financial and otherwise, of the SPVs, and other factors which generally influence the valuation of companies and their assets.
- 6.8. The goal in selection of valuation approaches and methods for any business is to find out the most appropriate method under particular circumstances on the basis of available information. No one method is suitable in every possible situation. Before selecting the appropriate valuation approach and method, I have considered various factors, inter-alia, the basis and premise of current valuation exercise, purpose of valuation exercise, respective strengths and weaknesses of the possible valuation approach and methods, availability of adequate inputs or information and its reliability and valuation approach and methods considered by the market participants.

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Cost Approach

The existing book value of EV of the SPVs comprising of the value of its Net fixed assets, Net intangible assets and working capital based on the provisional unaudited financial statements as at 31st March 2023 prepared as per Indian Accounting Standards (Ind AS) are as under :

SPVs	Book EV (INR Mn)	Adjusted EV (INR Mn)
	31 st Mar 2023	31 st Mar 2023
NBL	999	1,063
SEPL	116	426
DBCPL	3,823	3,976
GEPL	5,222	5,293
JPEPL	3,318	3,423
UEPL	3,304	3,765
Total of all SPVs	16,782	17,946

In the present case, the SPVs operate and maintain the project facilities in accordance with the terms and conditions under the relevant concession agreement(s). During the concession period, the SPVs operate and maintain the road asset and earn revenues either through:

- (a) Annuity payments that are predetermined; or
- (b) Charges, fees or tolls generated from the Toll SPVs.

The amount of annuity payments are pre-determined and the charges, fees or tolls that they may collect are notified by the relevant government authority, which are usually revised annually as specified in the relevant concessions and toll notifications. In such scenario, the true worth of the business is reflected in its future earning capacity rather than the cost of the project. Accordingly, I have not considered the cost approach for the current valuation exercise.

Market Approach

The present valuation exercise is to undertake fair EV of the SPVs engaged in the road infrastructure projects for a predetermined tenure. Further, the tariff revenue and expenses are very specific to the SPVs depending on the nature of their geographical location, stage of project, terms of profitability. In the absence of any exactly comparable listed companies with characteristics and parameters similar to that of the SPVs, I have not considered CCM method in the present case. In the absence of adequate details about the Comparable Transactions, I was unable to apply the CTM method. Currently, the equity shares of the SPVs are not listed on any recognized stock exchange of India. Hence, I was unable to apply market price method.

Income Approach

Each of the SPVs operates under a BOT or DBFOT based concession agreement with the relevant regulatory authorities. Government authorities in India typically award highway infrastructure development projects under BOT concessions, which are characterized by three distinct phases:

1. Build: upon successfully securing a project concession through a competitive bid, a concessionaire secures financing for, and completes construction, of a road;
2. Operate: during the agreed concession period, the concessionaire operates, manages and maintains the road at its own expense and earns revenues by collecting tolls from vehicles using the road or annuity payments from the Concessioneing Authority; and
3. Transfer: at the end of the agreed concession period, the ownership of the road (rights over the road under the concession), the obligation to maintain the road and the right to collect tolls from the vehicles using the road revert to the government entity that granted the concession.

A DBFOT project involves, in addition to the activities required under a BOT project, the provision of engineering and design for such project.

Currently, each of the SPVs are completed and are revenue generating. The revenue of the Toll SPVs is based on tenure, annuity payments, traffic volumes, operations, macro-economic factors like GDP growth, WPI, and other factors that are unique to each of the Toll SPVs. The revenue of the Annuity SPVs is mainly derived from the annuity payments (annuity fees). The annuity payments are typically pre-determined with the relevant government authority and cannot be modified to reflect prevailing circumstances. The Toll SPVs derive almost all of their revenue from their toll-road operations (toll collections) over the operation period. Traffic plying through the toll roads is primarily dependent on sustained economic development in the regions that they operate in and government policies relating to infrastructure development. The Toll SPVs are substantially dependent on the accuracy of their respective traffic volume forecasts. The rights in relation to the underlying assets of all the SPVs shall be transferred after the expiry of the Concession Period. Accordingly, since all the SPVs are generating income based on pre-determined agreements / mechanism and since the Investment Manager has provided me with the financial projections of the SPVs for the balance tenor of the concession agreements, DCF Method under the income approach has been considered as the appropriate method for the present valuation exercise.

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7. Valuation of the SPVs

- 7.1. I have estimated the fair EV and Adjusted Enterprise Value of the SPVs using the DCF Method. While carrying out this engagement, I have relied extensively on the information made available to me by the Investment Manager. I have considered projected financial statement of the SPVs as provided by the Investment Manager.

Valuation

- 7.2. The key assumptions of the projections provided to us by the Investment Manager are:

Key Assumptions:

7.2.1. Revenue cash flows for Annuity Model SPVs (Annuity SPVs)

Under this model, concessionaire is responsible for designing, building, financing, operating, maintaining and transferring the project to the authority at the end of the concession period. Under this model, post completion of the road project, the right and responsibility of tolling is with the government. Accordingly, only one mode of revenue is earned by these SPVs that is explained below:

Annuity Payments: The concessionaire earns revenue primarily in the form of pre - determined biannual annuity payments which are made by NHAI to the concessionaire based on the respective concession agreements.

7.2.2. Revenue cash flows for the Toll SPVs:

Under this mode, the Toll SPVs are responsible for designing, building, financing, operating, maintaining and transferring the project to the authority at the end of the concession period. The right and responsibility for tolling is with the Toll SPVs. The concessionaire earns revenue primarily in the form of toll revenue.

Toll Revenue: As per the concession agreements for the respective Toll SPVs, the Concessionaire is allowed to levy, demand, collect and appropriate the fees (called as toll fees) from vehicles and persons liable to payment of fees for using their road stretch or any part thereof and refuse entry of any vehicle to the road asset if the due fee is not paid. Toll revenues depend on toll receipts, which in turn depend on traffic volumes and toll fees on the toll roads.

Concession Period

The Concession Period refers to the period where the Concessionaire has the responsibility to construct the road asset and post-construction is granted with the exclusive rights, license and authority to demand, collect and appropriate fee, operate, manage and maintain the project highway subject to the terms and conditions mention in their respective concession agreement. The cash flow projections are prepared by the Investment Manager for the balance concession period remaining from the Valuation Date as summarized below:

SPV	Concession Period End Date		Extension Period	
	Original	Revised	For Traffic Variance	For Other Reasons
DBCPL	19-Mar-33	02-Dec-33	Nil	258
GEPL	28-Feb-38	03-Sep-43	1,973*	40**
JPEPL	16-Sep-38	13-Nov-43	1,825***	59**
UEPL	16-Oct-26	25-Mar-27	Nil	25**

*Subject to NHAI approval

** COVID-19 Extension

***Subject to Public Works Department, Government of Rajasthan approval

I understand, as per the extant provisions of the Concession Agreements for the respective Toll SPVs in relation to the traffic variation, the concession period could be modified to take into the account shortfall or excess in actual average traffic vis-à-vis the target traffic ranging beyond 2.5%

and such concession extension or truncation shall be subject to a cap of 20% extension for shortfall and 10% for truncation for excess.

Accordingly, the Investment Manager has considered an extension period based on its calculation which is subject to the approval from the respective Authorities in case of GEPL and JPEPL. I have relied on the information provided by the Investment Manager.

Extension for Other Reasons: Respective authorities vide their various orders have extended the concession period of the BOT Toll Projects for reasons including natural calamities, lockdowns on account of COVID-19, etc.

I have considered the projection period for the current valuation exercise based on the balance concession period as represented by the Investment Manager, wherein expected COVID-19 related extensions are considered for the Toll SPVs, as final approval from authorities has not been received.

Traffic Volumes

Traffic volumes are directly or indirectly affected by a number of factors, many of which are outside of the control of the Toll SPVs, including: toll fees; fuel prices in India; the frequency of traveler use; the quality, convenience and travel efficiency of alternative routes outside the Toll SPV's network of toll roads; the convenience and extent of a toll road's connections with other parts of the local, state and national highway networks; the availability and cost of alternative means of transportation, including rail networks and air transport; the level of commercial, industrial and residential development in areas served by the Toll SPVs' projects; adverse weather conditions; and seasonal holidays.

Toll Rates

During the concession period, the Toll SPVs operate and maintain the road asset and earn revenues through charges, fees or tolls generated from the asset. The amount of charges, fees or tolls that they may collect are notified by the relevant government authorities, which are usually revised annually as specified in the relevant concessions and toll notifications.

The toll rates for the projected period have been derived in the manner stipulated in the individual concession agreements of the Toll SPVs.

In the present case, the Investment Manager has appointed M/s Ramboll India Private Limited an independent third-party research agency to forecast the traffic volumes and toll revenues for the Toll SPVs. As confirmed by the Investment Manager, the traffic volumes and toll revenues for Toll SPVs have been estimated by the traffic consultant after considering overall structure and condition of the projects including analysis of demand and supply and strategic geographical locations of the individual road projects. This was one of the most important input in projecting the toll revenues.

7.2.3. Operating and Maintenance Expenses:

Since all the SPVs are operational on the Valuation Date, following are the major costs incurred by the SPV:

Operation and Maintenance Costs (Routine) ("O&M Costs")

These are routine costs incurred every year. These costs are related to the normal wear and tear of the road and hence involve repairing the patches damaged mainly due to heavy traffic movement. O&M Costs also includes staff salaries, consumables, security expenses, electricity, etc. The primary purpose of these expenses is to maintain the road as per the specifications mentioned in the respective concession agreement. SPV is generally responsible for carrying out operation and maintenance activities at its toll road during its concession period. Within the scope of such operation and maintenance obligations, the SPV may be required to undertake routine maintenance of project roads, maintain and comply with safety standards to ensure smooth and safe traffic movement, deploy adequate human resources for incident management, maintain proper medical and sanitary arrangements for personnel deployed at the site, prevent any unauthorized entry to and exit from the project as may be required.

Major Maintenance and Repairs Costs (“MMR Costs”)

Estimating the MMR Costs

Period maintenance expenses will be incurred on periodic basis say every 5 years or more. These are the costs incurred to bring the road assets back to its earlier condition or keep the road assets in its present condition. These expenses are primarily related to the construction or re-laying of the top layer of the road. Accordingly such costs include considerable amounts of materials and labour.

We have relied on projections as provided to us by the Investment Manager for estimating major maintenance expenses and O&M Costs for the projected period.

Provisions for MMR Costs and Cash Flow Adjustments

As per the financial requirements, provision is required for appropriate major maintenance expense over a period until the actual expenditure is incurred. These are non-cash expenses. Hence, for my DCF analysis, such provisions are added back in their respective years and the actual expenditure expected to be incurred during the particular interval (of 5 years or more) is deducted in those respective years in order to arrive at net cash flows.

The Investment Manager has provided me the estimated Major Maintenance Expenses.

- 7.2.4. **Depreciation and Amortization:** The toll collection rights or the financial rights (intangible assets) of the SPVs are being amortized over the period of concession using the revenue based amortization method prescribed under Schedule II to the Companies Act, 2013.
- 7.2.5. **Revenue Share/ Premium payment:** The revenues collected from the toll would be shared with NHAI (in case of GEPL) and Public Works Department, Government of Rajasthan (in case of JPEPL) in the form of a concession fee. The percentage of revenue that the SPV has to share with their respective appointing authority is defined in the Concession Agreement. This is applicable in case of GEPL and JPEPL only. Such Premium payment is reduced from the revenue of the respective SPV to arrive at FCFF for calculation of Enterprise Value.
- 7.2.6. **Capital Expenditure (“Capex”):** As represented by the Investment Manager, the maintenance Capex has already been factored in the Operations & Maintenance expenditure and Major maintenance expenditure for the projected period except for JPEPL. Capital Expenditure of ~ **INR 24 Mn** for JPEPL is estimated to be incurred in FY 2024.
- 7.2.7. **Taxes and Tax Incentive:** There have been changes in tax regime pursuant to introduction of Taxation Laws (Amendment) Ordinance 2019 made on 20th September 2019 which was enacted to make certain amendments in the Income Tax Act, 1961 and the Finance (No. 2) Act, 2019. As per the discussions with the Investment Manager, the old provisions of Income Tax Act have been considered for the projected period of all SPVs for the current valuation exercise, which inter alia provide benefits of additional depreciation, section 115JB and section 80-IA. New provision of Income Tax Act (with base corporate tax rate of 22%) have been considered for all SPVs (except for NBL, SEPL & UEPL) after utilization/ lapse of such 80-IA/ MAT benefits for the current valuation exercise.
- 7.2.8. **Working Capital:**
The Investment Manager has provided projected Working Capital information for all the SPVs. We have relied on the same.
- 7.3. **Impact of Ongoing Material Litigation on Valuation**
As on 31st March 2023, there are ongoing litigations as shown in Appendix 4. Further, Investment Manager has informed us that majority of the cases are low to medium risk and accordingly no material outflow is expected against the litigations, hence no impact has been factored on the valuation of the SPVs.

7.4. Calculation of Weighted Average Cost of Capital for the SPVs

7.4.1. **Cost of Equity:**

Cost of Equity (CoE) is a discounting factor to calculate the returns expected by the equity holders depending on the perceived level of risk associated with the business and the industry in which the business operates.

For this purpose, I have used the Capital Asset Pricing Model (CAPM), which is a commonly used model to determine the appropriate cost of equity for the SPVs.

$$K(e) = R_f + [ERP * Beta] + CSR_P$$

Wherein:

K(e) = cost of equity

R_f = risk free rate

ERP = Equity Risk Premium

Beta = a measure of the sensitivity of assets to returns of the overall market

CSR_P = Company Specific Risk Premium (In general, an additional company-specific risk premium will be added to the cost of equity calculated pursuant to CAPM).

For valuation exercise, I have arrived at adjusted cost of equity of the SPVs based on the above calculation (Refer Appendix 2).

7.4.2. **Risk Free Rate:**

I have applied a risk free rate of return of 7.17% on the basis of the zero coupon yield curve as on 31st March 2023 for government securities having a maturity period of 10 years, as quoted on the website of Clearing Corporation of India Limited.

7.4.3. **Equity Risk Premium ("ERP"):**

Equity Risk Premium is a measure of premium that investors require for investing in equity markets rather than bond or debt markets. The equity risk premium is estimated based on consideration of historical realised returns on equity investments over a risk-free rate as represented by 10 year government bonds. Based on the aforementioned, a 7% equity risk premium for India is considered appropriate.

7.4.4. **Beta:**

Beta is a measure of the sensitivity of a company's stock price to the movements of the overall market index. In the present case, I find it appropriate to consider the beta of companies in similar business/ industry to that of the SPVs for an appropriate period.

For the valuation of the Annuity SPVs, I find it appropriate to consider the beta of MEP Infrastructure Developers Ltd., Bharat Road Network Ltd and IRB InvIT Fund for an appropriate period. The beta so arrived, is further adjusted based on the factors of mentioned SPVs like completion of projects, revenue certainty, past collection trend, lack of execution uncertainty, etc. to arrive at the adjusted unlevered beta appropriate to the SPV.

I have further unlevered the beta of such companies based on market debt-equity of the respective company using the following formula:

$$\text{Unlevered Beta} = \text{Levered Beta} / [1 + (\text{Debt} / \text{Equity}) * (1-T)]$$

Further I have re-levered it based on debt-equity at 70:30 based on the industry Debt: Equity ratio of annuity based road DBFOT/BOT projects using the following formula:

$$\text{Re-levered Beta} = \text{Unlevered Beta} * [1 + (\text{Debt} / \text{Equity}) * (1-T)]$$

Accordingly, as per above, I have arrived at re-levered betas of Annuity SPVs. (Refer Appendix 2)

For the valuation of the Toll SPVs, I find it appropriate to consider the beta of Ashoka Buildcon Limited and IRB Infrastructure Developers Limited for an appropriate period. The beta so arrived, is further adjusted based on the factors of mentioned SPVs like completion of projects, revenue certainty, past collection trend, lack of execution uncertainty etc. to arrive at the adjusted unlevered beta appropriate to the SPV.

I have further unlevered the beta of such companies based on market debt-equity of the respective company using the following formula:

$$\text{Unlevered Beta} = \text{Levered Beta} / [1 + (\text{Debt} / \text{Equity}) * (1-T)]$$

Further I have re-levered it based on debt-equity at 50:50 based on the industry Debt: Equity ratio of a road toll based BOT/DBFOT projects using the following formula:

$$\text{Re-levered Beta} = \text{Unlevered Beta} * [1 + (\text{Debt} / \text{Equity}) * (1-T)]$$

Accordingly, as per above, I have arrived at re-levered betas of the Toll SPVs. (Refer Appendix 2)

7.4.5. Company Specific Risk Premium (“CSRP”):

Discount Rate is the return expected by a market participant from a particular investment and shall reflect not only the time value of money but also the risk inherent in the asset being valued as well as the risk inherent in achieving the future cash flows. In the present case, considering the counter-party risk for certain SPVs, considering the length of the explicit period for the Toll SPVs, and basis my discussion with Investment Manager, I found it appropriate to consider the following CSRPs:

Sr. No.	SPVs	CSRP
1	NBL	0%
2	SEPL	0%
3	DBCPL	2%
4	GEPL	2%
5	JPEPL	2%
6	UEPL	1%

7.4.6. Cost of Debt:

The calculation of Cost of Debt post-tax can be defined as follows:

$$K(d) = K(d) \text{ pre-tax} * (1 - T)$$

Wherein:

K(d) = Cost of debt

T = tax rate as applicable

For valuation exercise, pre-tax cost of debt has been considered on the basis of details and representation provided by the Investment Manager.

7.4.7. Weighted Average Cost of Capital (WACC):

The discount rate, or the WACC, is the weighted average of the expected return on equity and the cost of debt. The weight of each factor is determined based on the company's optimal capital structure.

Formula for calculation of WACC:

$$\text{WACC} = [K(d) * \text{Debt} / (\text{Debt} + \text{Equity})] + [K(e) * (1 - \text{Debt} / (\text{Debt} + \text{Equity}))]$$

Accordingly, as per above, I have arrived the WACC for the explicit period of the SPVs.

(Refer Appendix 2 for detailed workings).

- 7.5.** At the end of the agreed concession period, the rights in relation to the underlying assets, its operations, the obligation to maintain the road and the right to collect tolls from the vehicles using the road revert to the government authority that granted the concession. Hence, SPVs are not expected to generate cash flow after the expiry of their respective concession agreements. Accordingly, I found it appropriate not to consider terminal period value, which represents the present value at the end of explicit forecast period of all subsequent cash flows to the end of the life of the asset or into perpetuity if the asset has an indefinite life, in this valuation exercise.

8. Valuation Conclusion

- 8.1. The current valuation has been carried out based on the discussed 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.
- 8.2. I have been represented by the Investment Manager that there is no potential devolvement on account of the contingent liability as of valuation date; hence no impact has been factored in to arrive at fair EV of the SPVs.
- 8.3. Based on the above analysis, the fair EV and Adjusted Enterprise Value as on the Valuation Date of the SPVs is as mentioned below:

					INR Mn
Sr. No.	SPVs	End of Projected Period	Approximate Balance Period	Enterprise Value	Adjusted Enterprise Value
1	NBL	29-Oct-27	~4 Years 7 Months	1,104	1,168
2	SEPL	06-Feb-26	~2 Years 10 Months	220	531
3	DBCPL	02-Dec-33	~10 Years 8 Months	15,709	15,863
4	GEPL	03-Sept-43	~20 Years 5 Months	22,866	22,937
5	JPEPL	13-Nov-43	~20 Years 8 Months	8,018	8,123
6	UEPL	25-Mar-27	~4 Years 0 Months	4,484	4,944
Total of all SPVs				52,402	53,566

(Refer Appendix 1 for detailed workings)

- 8.4. EV is described as the total value of the equity in a business plus the value of its debt and debt related liabilities, minus any cash or cash equivalents to meet those liabilities.
- 8.5. Adjusted Enterprise Value is derived as EV as defined above plus cash or cash equivalents of the SPVs as at 31st March 2023.
- 8.6. The fair EV of the SPVs is estimated using DCF method. The valuation requires Investment Manager to make certain assumptions about the model inputs including forecast cash flows, discount rate, and credit risk.
- 8.7. Valuation is based on estimates of future financial performance or opinions, which represent reasonable expectations at a particular point of 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.
- 8.8. Accordingly, I have conducted sensitivity analysis on certain model inputs, the results of which are as indicated below:
1. WACC by increasing / decreasing it by 0.5%
 2. WACC by increasing / decreasing it by 1.0%
 3. Revenue of Toll SPVs by increasing / decreasing it by 10%
 4. Operation and Maintenance Expenses by increasing / decreasing it by 20%

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1. Fair Enterprise Valuation Range based on WACC parameter (0.5%)

INR Mn

Sr. No.	SPVs	WACC + 0.5%	EV	Base WACC	EV	WACC - 0.5%	EV
1	NBL	8.8%	1,090	8.3%	1,104	7.8%	1,119
2	SEPL	8.9%	219	8.4%	220	7.9%	221
3	DBCPL	11.1%	15,333	10.6%	15,709	10.1%	16,100
4	GEPL	11.0%	21,847	10.5%	22,866	10.0%	23,954
5	JPEPL	11.0%	7,658	10.5%	8,018	10.0%	8,403
6	UEPL	10.6%	4,440	10.1%	4,484	9.6%	4,528
Total of all SPVs			50,587		52,402		54,325

2. Fair Enterprise Valuation Range based on WACC parameter (1.0%)

INR Mn

Sr. No.	SPVs	WACC + 1.0%	EV	Base WACC	EV	WACC - 1.0%	EV
1	NBL	9.3%	1,076	8.3%	1,104	7.3%	1,133
2	SEPL	9.4%	217	8.4%	220	7.4%	223
3	DBCPL	11.6%	14,970	10.6%	15,709	9.6%	16,505
4	GEPL	11.5%	20,892	10.5%	22,866	9.5%	25,116
5	JPEPL	11.5%	7,321	10.5%	8,018	9.5%	8,814
6	UEPL	11.1%	4,396	10.1%	4,484	9.1%	4,574
Total of all SPVs			48,872		52,402		56,365

3. Fair Enterprise Valuation Range based on Revenue parameter of Toll SPVs (10%)

INR Mn

Sr. No.	SPVs	EV at Revenue - 10%	EV at Base Revenue	EV at Revenue + 10%
1	NBL	NA	NA	NA
2	SEPL	NA	NA	NA
3	DBCPL	13,870	15,709	17,548
4	GEPL	20,229	22,866	25,503
5	JPEPL	6,925	8,018	9,112
6	UEPL	3,945	4,484	5,023
Total of all SPVs		44,968	51,078	57,186

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4. Fair Enterprise Valuation Range based on Major Maintenance Expenses and Operation & Maintenance Expenses parameter (20%)

		INR Mn		
Sr. No.	SPVs	EV at Expenses + 20%	EV at Base Expenses	EV at Expenses - 20%
1	NBL	978	1,104	1,232
2	SEPL	108	220	329
3	DBCPL	15,043	15,709	16,375
4	GEPL	22,391	22,866	23,341
5	JPEPL	7,439	8,018	8,598
6	UEPL	4,195	4,484	4,772
Total of all SPVs		50,153	52,402	54,647

The above represents reasonable range of fair enterprise valuation of the SPVs.

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9. Additional Procedures to be complied with in accordance with InvIT regulations

Scope of Work

- 9.1 The Schedule V of the SEBI InvIT Regulations prescribes the minimum set of mandatory disclosures to be made in the valuation report. In this reference, the minimum disclosures in valuation report may include following information as well, so as to provide the investors with the adequate information about the valuation and other aspects of the underlying assets of the InvIT.

The additional set of disclosures, as prescribed under Schedule V of InvIT Regulations, to be made in the valuation report of the SPVs are as follows:

- List of one-time sanctions/approvals which are obtained or pending;
- List of up to date/overdue periodic clearances;
- Statement of assets;
- Estimates of already carried as well as proposed major repairs and improvements along with estimated time of completion;
- Revenue pendencies including local authority taxes associated with InvIT asset and compounding charges, if any;
- On-going material litigations including tax disputes in relation to the assets, if any;
- Vulnerability to natural or induced hazards that may not have been covered in town planning/ building control.

Limitations

- 9.2 This Report is based on the information provided by the representatives of the Investment Manager. The exercise has been restricted and kept limited to and based entirely on the documents, records, files, registers and information provided to me. I have not verified the information independently with any other external source.
- 9.3 I have assumed the genuineness of all signatures, the authenticity of all documents submitted to me as original, and the conformity of the copies or extracts submitted to me with that of the original documents.
- 9.4 I have assumed that the documents submitted to me by the representatives of Investment Manager in connection with any particular issue are the only documents related to such issue.
- 9.5 I have reviewed the documents and records from the limited perspective of examining issues noted in the scope of work and I do not express any opinion as to the legal or technical implications of the same.

Analysis of Additional Set of Disclosures for the SPVs

- A. List of one-time sanctions/approvals which are obtained or pending:

The list of sanctions/ approvals obtained by the SPVs till the date of this Report is provided in Appendix 3.1 to Appendix 3.6. As informed by the Investment Manager, there are no applications for government sanctions/ licenses by the SPVs for which approval is pending as on 31st March 2023, except for:

1. No-objection certificate from the Tamil Nadu Pollution Control Board by UEPL.
2. SWB stamping certificate is applied for renewal before Govt. of Gujarat Legal Metrology Dept. by GEPL. (Certificate issued on 15th June 2022)

B. List of up to date/ overdue periodic clearances:

The Investment Manager has confirmed that the SPVs are not required to take any periodic clearances and hence there are no up to date/ overdue periodic clearances as on 31st March 2023.

C. Statement of assets included:

The details of assets of the SPVs as at 31st March 2023 are as mentioned below:

INR Mn					
Sr. No.	SPVs	Net Fixed Assets	Net Intangible Asset	Non-Current Assets	Current Assets
1	NBL	8	-	553	546
2	SEPL	4	0	146	315
3	DBCPL	22	3,464	351	306
4	GEPL	17	8,111	3	99
5	JPEPL	39	3,878	4	119
6	UEPL	11	3,900	16	479
Total of all SPVs		100	19,354	1,072	1,864

* Non-Current Assets for Annuity SPVs includes Non Current Financial Assets in the form of Annuity Receivable from respective counterparties.

D. Estimates of already carried as well as proposed major repairs and improvements along with estimated time of completion:

I have been informed that maintenance is regularly carried out by SPVs in order to maintain the working condition of the assets.

Historical major repairs

INR Mn						
SPVs	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
NBL	-	6	284	-	-	-
SEPL	6	-	10	23	-	-
DBCPL	123	-	217	180	504	67
GEPL	-	-	-	7	233	-
JPEPL	-	-	-	-	185	292
UEPL	-	287	333	-	-	-

Source: Investment Manager

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Forecasted major repairs

											INR Mn
SPVs	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	FY 30	FY 31	FY 32	FY 33	FY 34
NBL	206	212	-	-	13	-	-	-	-	-	-
SEPL	413	-	13	-	-	-	-	-	-	-	-
DBCPL	-	-	-	-	1,113	-	-	-	-	-	1,306
GEPL	-	-	-	-	-	411	-	-	-	-	-
JPEPL	5	-	-	-	-	1,386	-	-	-	-	-
UEPL	665	306	-	13	-	-	-	-	-	-	-

SPVs	FY 35	FY 36	FY 37	FY 38	FY 39	FY 40	FY 41	FY 42	FY 43	FY 44
NBL	-	-	-	-	-	-	-	-	-	-
SEPL	-	-	-	-	-	-	-	-	-	-
DBCPL	-	-	-	-	-	-	-	-	-	-
GEPL	-	447	-	-	-	-	-	-	516	-
JPEPL	-	782	-	-	-	-	-	-	1,043	-
UEPL	-	-	-	-	-	-	-	-	-	-

Source: Investment Manager

- E. Revenue pendencies including local authority taxes associated with InvIT asset and compounding charges, if any:

Investment Manager has informed me that there are no material dues including local authority taxes (such as Municipal Tax, Property Tax, etc.) pending to be payable to the government authorities with respect to the SPVs (InvIT assets).

- F. On-going material litigations including tax disputes in relation to the assets, if any:

As informed by the Investment Manager, the status of arbitration matters and status of tax assessments are updated in Appendix 4.

Investment Manager has informed us that majority of the cases are having low to medium risk and accordingly no material outflow is expected against the litigations.

Hence, I have relied on the Investment Manager with respect to the current status of the abovementioned cases.

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

Investment Manager has confirmed to me that there are no such natural or induced hazards which have not been considered in town planning/ building control.

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10. Sources of Information

For the purpose of undertaking this valuation exercise, I have relied on the following sources of information provided by the Investment Manager:

- 10.1. Audited Financial Statements of the SPVs for Financial Year ("FY") ended 31st March 2018, 31st March 2019, 31st March 2020, 31st March 2021 and 31st March 2022.
- 10.2. Provisional Unaudited Financial Statements of the SPVs for Financial Year ("FY") ended 31st March 2023;
- 10.3. Special Purpose Provisional Unaudited Financial Statements of the GEPL for Financial Year ("FY") ended 31st March 2023;
- 10.4. Projected financial information for the remaining project life for each of the SPVs;
- 10.5. Details of projected Major Maintenance & Repairs (MMR) Expenditure and Capital Expenditure (Capex);
- 10.6. Traffic Study Projection Report dated 11th April 2023 prepared by M/s Ramboll India Private Limited for the Toll SPVs;
- 10.7. Details of brought forward losses and MAT credit (as per Income Tax Act) of the SPVs as at 31st March 2023;
- 10.8. Details of Written Down Value (WDV) (as per Income Tax Act) of assets as at 31st March 2023;
- 10.9. Concession Agreement of each of the SPVs with the respective authority;
- 10.10. List of licenses / approvals, details of tax litigations, civil proceeding and arbitrations of the SPVs;
- 10.11. Shareholding pattern as on 31st March 2023 of the SPVs and other entities mentioned in this Report;
- 10.12. Management Representation Letter by the Investment Manager dated 10th May 2023;
- 10.13. Relevant data and information about the SPVs provided to us by the Investment Manager either in written or oral form or in the form of soft copy;
- 10.14. Information provided by leading database sources, market research reports and other published data.

The information provided to me by the Investment Manager in relation to the SPVs included but not limited to historical financial statements, forecasts/projections, other statements and assumptions about future matters like forward-looking financial information prepared by the Investment Manager. The forecasts and projections as supplied to me are based upon assumptions about events and circumstances which are yet to occur.

I have not tested individual assumptions or attempted to substantiate the veracity or integrity of such assumptions in relation to the forward-looking financial information, however, I have made sufficient enquiries to satisfy myself that such information has been prepared on a reasonable basis.

Notwithstanding anything above, I cannot provide any assurance that the forward looking financial information will be representative of the results which will actually be achieved during the cash flow forecast period.

Further, considering the current crisis in relation to COVID-19 in India and across the globe, I have been informed by the Investment Manager, that the forecasts / projections provided for the valuation exercises are prepared after reasonably evaluating and incorporating the impact of outbreak of COVID-19 pandemic as per prevalent conditions as on date, if any.

11. Exclusions and Limitations

- 11.1. My 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 herein.
- 11.2. Valuation analysis and results are specific to the purpose of valuation and is not intended to represent value at any time other than the valuation date of 31st March 2023 ("Valuation Date") mentioned in the Report and as per agreed terms of my engagement. It may not be valid for any other purpose or as at any other date. Also, it may not be valid if done on behalf of any other entity.
- 11.3. This Report, its contents and the results are specific to (i) the purpose of valuation agreed as per the terms of my engagements; (ii) the Valuation Date and (iii) are based on the financial information of the SPVs till 31st March 2023. The Investment Manager has represented that the business activities of the SPVs have been carried out in normal and ordinary course between 31st March 2023 and the Report Date and that no material changes have occurred in the operations and financial position between 31st March 2023 and the Report date.
- 11.4. The scope of my assignment did not involve me performing audit tests for the purpose of expressing an opinion on the fairness or accuracy of any financial or analytical information that was provided and used by me during the course of my work. The assignment did not involve me to conduct the financial or technical feasibility study. I have not done any independent technical valuation or appraisal or due diligence of the assets or liabilities of the SPVs or any of other entity mentioned in this Report and have considered them at the value as disclosed by the SPVs in their regulatory filings or in submissions, oral or written, made to me.
- 11.5. In addition, I do not take any responsibility for any changes in the information used by me to arrive at my conclusion as set out here in which may occur subsequent to the date of my Report or by virtue of fact that the details provided to me are incorrect or inaccurate.
- 11.6. I have assumed and relied upon the truth, accuracy and completeness of the information, data and financial terms provided to me or used by me; I have assumed that the same are not misleading and do not assume or accept any liability or responsibility for any independent verification of such information or any independent technical valuation or appraisal of any of the assets, operations or liabilities of the SPVs or any other entity mentioned in the Report. 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.
- 11.7. This Report is intended for the sole use in connection with the purpose as set out above. It can however be relied upon and disclosed in connection with any statutory and regulatory filing in connection with the provision of SEBI InvIT Regulations. However, I will not accept any responsibility to any other party to whom this Report may be shown or who may acquire a copy of the Report, without my written consent.
- 11.8. 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 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 his purpose.
- 11.9. Further, this Report is necessarily based on financial, economic, monetary, market and other conditions as in effect on, and the information made available to me or used by me up to, the date hereof. 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, revise or reaffirm this Report if information provided to me changes.

Strictly Private and Confidential

- 11.10. This Report is based on the information received from the sources as mentioned in Section 9 of this Report and discussions with the Investment Manager. I have assumed that no information has been withheld that could have influenced the purpose of my Report.
- 11.11. Valuation is not a precise science and the conclusions arrived at in many cases may be subjective and dependent on the exercise of individual judgment. There is, therefore, no indisputable single value. I have arrived at an indicative EV based on my analysis. 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 this business.
- 11.12. Any discrepancies in any table / appendix between the total and the sums of the amounts listed are due to rounding-off.
- 11.13. Valuation is based on estimates of future financial performance or opinions, which represent reasonable expectations at a particular point of 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.
- 11.14. I do not carry out any validation procedures or due diligence with respect to the information provided/extracted or carry out any verification of the assets or comment on the achievability and reasonableness of the assumptions underlying the financial forecasts, save for satisfying ourselves to the extent possible that they are consistent with other information provided to me in the course of this engagement.
- 11.15. My conclusion assumes that the assets and liabilities of the SPVs, reflected in their respective latest balance sheets remain intact as of the Report date.
- 11.16. Whilst all reasonable care has been taken to ensure that the factual statements in the Report are accurate, neither myself, nor any of my associates, officers or employees shall in any way be liable or responsible either directly or indirectly 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 factual statements. I expressly disclaim any and all liabilities, which may arise based upon the information used in this Report. I am not liable to any third party in relation to the issue of this Report.
- 11.17. The scope of my work has been limited both in terms of the areas of the business & operations which I have reviewed and the extent to which I have reviewed them. There may be matters, other than those noted in this Report, which might be relevant in the context of the transaction and which a wider scope might uncover.
- 11.18. For the present valuation exercise, I have also relied on information available in public domain; however the accuracy and timelines of the same has not been independently verified by me.
- 11.19. In the particular circumstances of this case, my liability (in contract or under any statute or otherwise) for any economic loss or damage arising out of or in connection with this engagement, however the loss or damage caused, shall be limited to the amount of fees actually received by me from the Investment Manager, as laid out in the engagement letter for such valuation work.
- 11.20. In rendering this Report, I have not provided any legal, regulatory, tax, accounting or actuarial advice and accordingly I do not assume any responsibility or liability in respect thereof.
- 11.21. This Report 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.

Strictly Private and Confidential

- 11.22. I am not an advisor with respect to legal, tax and regulatory matters for the proposed transaction. No investigation of the SPVs' claim to title of assets has been made for the purpose of this Report and the SPVs' claim to such rights have been assumed to be valid. No consideration has been given to liens or encumbrances against the assets, beyond the loans disclosed in the accounts. Therefore, no responsibility is assumed for matters of a legal nature.
- 11.23. I have no present or planned future interest in the Trustee, Investment Manager or the SPVs and the fee for this Report is not contingent upon the values reported herein. My valuation analysis should not be construed as investment advice; specifically, I do not express any opinion on the suitability or otherwise of entering into any financial or other transaction with the Investment Manager or SPVs.
- 11.24. I have submitted the draft valuation report to the Trust and Investment Manager for confirmation of accuracy of the factual data used in my analysis and to prevent any error or inaccuracy in this Report.
- 11.25. **Limitation of Liabilities**
- i. It is agreed that, having regard to the RV's interest in limiting the personal liability and exposure to litigation of its personnel, the Sponsor, the Investment Manager and the Trust will not bring any claim in respect of any damage against any of RV personally.
 - ii. In no circumstances RV shall be responsible for any consequential, special, direct, indirect, punitive or incidental loss, damages or expenses (including loss of profits, data, business, opportunity cost, goodwill or indemnification) in connection with the performance of the services whether such damages are based on breach of contract, tort, strict liability, breach of warranty, negligence, or otherwise, even if the Investment Manager had contemplated and communicated to RV the likelihood of such damages. Any decision to act upon the deliverables (including this Report) is to be made by the Investment Manager and no communication by RV should be treated as an invitation or inducement to engage the Investment Manager to act upon the deliverable(s).
 - iii. It is clarified that the Investment Manager will be solely responsible for any delays, additional costs, or other liabilities caused by or associated with any deficiencies in their responsibilities, misrepresentations, incorrect and incomplete information including information provided to determine the assumptions.
 - iv. RV will not be liable if any loss arises due to the provision of false, misleading or incomplete information or documentation by the Investment Manager.

Strictly Private and Confidential

- 11.26. Further, this Report is necessarily based on financial, economic, monetary, market and other conditions as in effect on, and the information made available to me or used by me up to, the date hereof. 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, revise or reaffirm this Report if information provided to me changes.

Yours faithfully,

S. Sundararaman

Registered Valuer

IBBI Registration No.: IBBI/RV/06/2018/10238

Asset Class: Securities or Financial Assets

Place: Chennai

UDIN: 23028423BGYWGT8936

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Appendix 1 – Valuation of SPVs as on 31st March 2023

Abbreviations	Meaning
EBITDA	Operating Earnings Before Interest, Taxes, Depreciation and Amortization
MMR	Major Maintenance and Repair Expenses
Capex	Capital Expenditure
Wcap	Incremental Working Capital
FCFF	Free Cash Flow to the Firm
CAF	Cash Accrual Factor
DF	Discounting Factor
PVFCFF	Present value of Free Cash Flow to the Firm

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Appendix 1.1 – Valuation of NBL as on 31st March 2023 under the DCF Method

WACC		8.3%														INR Mn
Year	Revenue	EBITDA	Financial income	O&M and MMR Income	Annuity Receipt from NHAI	Non-Cash Expense	Cash EBITDA	MMR	Capex	Wcap	Tax	FCFF	CAF	DF	PVFCFF	
		A	B	C	D	E	F=A+B+C+D+E	G	H	I	J	K=F-G-H-I-J		L	M=K*L	
FY24	448	348	(91)	(357)	476	-	376	206	-	8	25	137	0.50	0.96	132	
FY25	436	345	(100)	(335)	476	-	386	212	-	-	23	150	1.50	0.89	133	
FY26	200	104	(80)	(120)	476	-	380	-	-	-	18	362	2.50	0.82	296	
FY27	176	73	(47)	(128)	476	-	374	-	-	-	12	362	3.50	0.76	273	
FY28*	108	43	(13)	(95)	476	-	411	13	-	-	5	393	4.29	0.71	279	
Total of PVFCFF															1,113	
(+) Present Value of Working Capital Release															(9)	
Enterprise Value															1,104	
(+) Closing cash or cash equivalents as at the Valuation Date															64	
Adjusted Enterprise Value															1,168	

*Upto 29 October 2027

Appendix 1.2 – Valuation of SEPL as on 31st March 2023 under the DCF Method

WACC		8.4%														INR Mn
Year	Revenue	EBITDA	Financial income	O&M and MMR Income	Annuity Receipt from NHAI	Non-Cash Expense	Cash EBITDA	MMR	Capex	Wcap	Tax	FCFF	CAF	DF	PVFCFF	
		A	B	C	D	E	F=A+B+C+D+E	G	H	I	J	K=F-G-H-I-J		L	M=K*L	
FY24	622	515	(18)	(603)	497	-	391	413	-	12	16	(50)	0.50	0.96	(48)	
FY25	136	42	(17)	(120)	497	-	402	-	-	-	6	396	1.50	0.89	351	
FY26*	113	27	10	(123)	-	-	(86)	13	-	-	2	(100)	2.43	0.82	(82)	
Total of PVFCFF															220	
(+) Present Value of Working Capital Release															(0)	
Enterprise Value															220	
(+) Closing cash or cash equivalents as at the Valuation Date															310	
Adjusted Enterprise Value															531	

*Upto 6 February 2026

Appendix 1.3 – Valuation of DBCPL as on 31st March 2023 under the DCF Method

WACC 10.6%											INR Mn
Year	Book Revenue	EBITDA	MMR Provision	MMR Expense	Capex	Wcap	Tax	FCFF	CAF	DF	PVFCFF
		A	B	C	D	E	F	G=A-B-C-D-E-F		H	I=G*H
FY24	2,119	1,830	-	-	-	65	288	1,477	0.50	0.95	1,405
FY25	2,366	2,067	-	-	-	8	326	1,733	1.50	0.86	1,491
FY26	2,653	2,320	-	-	-	9	366	1,945	2.50	0.78	1,514
FY27	2,965	2,589	-	-	-	10	409	2,171	3.50	0.70	1,528
FY28	3,320	2,664	(278)	1,113	-	10	416	1,403	4.50	0.64	893
FY29	3,693	3,068	(218)	-	-	11	481	2,793	5.50	0.58	1,608
FY30	4,125	3,471	(218)	-	-	12	545	3,131	6.50	0.52	1,631
FY31	4,599	3,912	(218)	-	-	13	615	3,501	7.50	0.47	1,650
FY32	5,140	4,411	(218)	-	-	14	695	3,920	8.50	0.43	1,671
FY33	5,704	4,933	(218)	-	-	15	1,002	4,134	9.50	0.39	1,594
FY34*	4,271	3,435	(218)	1,306	-	-	552	1,794	10.34	0.35	636
Enterprise Value											15,620
(+) Present Value of Working Capital Release											89
Enterprise Value											15,709
(+) Closing cash or cash equivalents as at the Valuation Date											153
Adjusted Enterprise Value											15,863

*Upto 2 December 2033

Appendix 1.4 – Valuation of GEPL as on 31st March 2023 under the DCF Method

WACC 10.5%												INR Mn
Year	Book Revenue	EBITDA	MMR Provision	MMR Expense	Premium Payment to NHAI	Capex	Wcap	Tax	FCFF	CAF	DF	PVFCFF
		A	B	C	D	E	F	G	H=A-B-C-D-E-F-G		I	J=H*I
FY24	1,614	1,401	(43)	-	128	-	14	223	1,079	0.50	0.95	1,027
FY25	1,802	1,589	(47)	-	134	-	-	254	1,249	1.50	0.86	1,076
FY26	2,011	1,784	(52)	-	141	-	-	285	1,410	2.50	0.78	1,100
FY27	2,250	2,005	(57)	-	148	-	-	320	1,593	3.50	0.71	1,125
FY28	2,514	2,247	(62)	-	155	-	-	359	1,795	4.50	0.64	1,147
FY29	2,797	2,507	(68)	411	163	-	-	401	1,601	5.50	0.58	926
FY30	3,137	2,859	(36)	-	171	-	-	458	2,267	6.50	0.52	1,187
FY31	3,473	3,171	(40)	-	179	-	-	508	2,524	7.50	0.47	1,197
FY32	3,873	3,544	(44)	-	188	-	-	568	2,832	8.50	0.43	1,216
FY33	4,281	3,924	(48)	-	198	-	-	629	3,145	9.50	0.39	1,222
FY34	4,742	4,356	(53)	-	208	-	-	698	3,503	10.50	0.35	1,232
FY35	5,244	4,829	(58)	-	218	-	-	774	3,895	11.50	0.32	1,240
FY36	5,786	5,339	(64)	447	229	-	-	856	3,871	12.50	0.29	1,116
FY37	6,340	5,887	(42)	-	241	-	-	944	4,744	13.50	0.26	1,238
FY38	6,918	6,432	(46)	-	253	-	-	1,566	4,659	14.50	0.24	1,101
FY39	7,559	7,036	(51)	-	265	-	-	1,716	5,105	15.50	0.21	1,092
FY40	8,260	7,700	(56)	-	278	-	-	1,881	5,596	16.50	0.19	1,084
FY41	8,967	8,366	(61)	-	292	-	-	2,047	6,088	17.50	0.18	1,067
FY42	9,771	9,127	(67)	-	307	-	-	2,237	6,651	18.50	0.16	1,056
FY43	10,591	9,901	(74)	516	322	-	-	2,299	6,837	19.50	0.14	982
FY44*	4,908	4,532	-	-	141	-	-	1,105	3,286	20.21	0.13	440
Total of PVFCFF												22,870
(+ Present Value of Working Capital Release												(4)
Enterprise Value												22,866
(+ Closing cash or cash equivalents as at the Valuation Date												71
Adjusted Enterprise Value												22,937

*Upto 3 September 2043

Appendix 1.5 – Valuation of JPEPL as on 31st March 2023 under the DCF Method

WACC		10.5%										INR Mn	
Year	Book Revenue	EBITDA	MMR Provision	MMR Expense	PWD Premium Payable	Capex	Wcap	Tax		FCFF	CAF	DF	PVFCFF
		A	B	C	D	E	F	G	H=A-B-C-D-E-F-G		I		J=H*I
FY24	745	573	(1)	5	17	24	102	85		341	0.50	0.95	324
FY25	799	439	(193)	-	18	-	-	61		553	1.50	0.86	476
FY26	878	489	(211)	-	18	-	-	68		613	2.50	0.78	478
FY27	975	553	(231)	-	19	-	-	78		687	3.50	0.71	485
FY28	1,077	620	(253)	-	20	-	-	88		765	4.50	0.64	488
FY29	1,188	696	(277)	1,386	21	-	-	99		-533	5.50	0.58	-308
FY30	1,306	1,014	(65)	-	22	-	-	153		904	6.50	0.52	473
FY31	1,433	1,122	(71)	-	24	-	-	169		1,001	7.50	0.47	473
FY32	1,585	1,253	(78)	-	25	-	-	190		1,117	8.50	0.43	478
FY33	1,735	1,382	(85)	-	26	-	-	210		1,232	9.50	0.39	477
FY34	1,899	1,522	(93)	-	27	-	-	231		1,357	10.50	0.35	476
FY35	2,076	1,671	(102)	-	29	-	-	254		1,490	11.50	0.32	473
FY36	2,273	1,838	(112)	782	30	-	-	280		858	12.50	0.29	246
FY37	2,466	2,033	(87)	-	32	-	-	311		1,778	13.50	0.26	462
FY38	2,674	2,209	(95)	-	33	-	-	338		1,933	14.50	0.24	454
FY39	2,900	2,399	(104)	-	35	-	-	440		2,028	15.50	0.21	432
FY40	3,145	2,607	(114)	-	37	-	-	641		2,042	16.50	0.19	393
FY41	3,387	2,807	(124)	-	38	-	-	694		2,199	17.50	0.17	383
FY42	3,655	3,033	(136)	-	40	-	-	754		2,375	18.50	0.16	375
FY43	3,966	3,300	(149)	1,043	42	-	-	561		1,802	19.50	0.14	257
FY44*	2,672	2,312	-	-	30	-	-	553		1,729	20.31	0.13	228
Total of PVFCFF													8,022
(+) Present Value of Working Capital Release													(4)
Enterprise Value													8,018
(+) Closing cash or cash equivalents as at the Valuation Date													104
Adjusted Enterprise Value													8,123

*Upto 13 November 2043

Appendix 1.6 – Valuation of UEPL as on 31st March 2023 under the DCF Method

WACC 10.1%		INR Mn									
Year	Book Revenue	EBITDA	MMR Provision	MMR Expense	Capex	Wcap	Tax	FCFF	CAF	DF	PVFCFF
		A	B	C	D	E	F	G=A-B-C-D-E-F		H	I=G*H
FY24	1,801	1,426	(163)	665	-	24	94	806	0.50	0.95	768
FY25	1,919	1,399	(306)	306	-	-	80	1,320	1.50	0.87	1,142
FY26	2,050	1,815	(6)	-	-	-	141	1,681	2.50	0.79	1,321
FY27*	2,159	1,911	(6)	13	-	-	148	1,756	3.49	0.71	1,255
Total of PVFCFF											4,486
(+) Present Value of Working Capital Release											(3)
Enterprise Value											4,484
(+) Closing cash or cash equivalents as at the Valuation Date											461
Adjusted Enterprise Value											4,944

*Upto 25 March 2027

Appendix 2.1 – Weighted Average Cost of Capital of the NHAI Annuity SPVs as on 31st March 2023

Particulars	NBL	SEPL	Remarks
Risk free return (Rf)	7.2%	7.2%	Risk Free Rate has been considered based on zero coupon yield curve as at 31st March 2023 of Government Securities having maturity period of 10 years, as quoted on CCIL's website
Market Risk Premium (ERP)	7.0%	7.0%	Based on historical realized returns on equity investments over a risk free rate represented by 10 years government bonds, a 7% equity risk premium is considered appropriate for India
Beta (Relevered)	0.56	0.56	Beta has been considered based on the beta of companies operating in the similar kind of business in India
Cost of Equity (Ke)	11.1%	11.1%	Base Ke = Rf + (β x ERP)
Company Specific Risk Premium (CSRP)	0.0%	0.0%	Based on SPV specific risk(s)
Revised Cost of Equity (Ke)	11.1%	11.1%	Adjusted Ke = Rf + (β x ERP) + CSRP
Pre-tax Cost of Debt (Kd)	8.65%	8.65%	As per the Existing Cost of Debt of the SPVs, as represented by the Investment Manager
Tax rate of SPV	17.2%	16.7%	Tax Rate Applicable to SPVs is considered
Post-tax Cost of Debt (Kd)	7.2%	7.2%	Effective cost of debt. Kd = Pre tax Kd * (1-Effective Tax Rate)
Debt/(Debt+Equity)	70.0%	70.0%	Debt : Equity ratio computed as [D/(D+E)]
WACC	8.3%	8.4%	WACC = [Ke * (1 - D/(D+E))] + [Kd * (1-t) * D/(D+E)]

Appendix 2.2 – Weighted Average Cost of Capital of the Toll SPVs as on 31st March 2023

Particulars	DBCPL	GEPL	JPEPL	UEPL	Remarks
Risk free return (Rf)	7.2%	7.2%	7.2%	7.2%	Risk Free Rate has been considered based on zero coupon yield curve as at 31st March 2023 of Government Securities having maturity period of 10 years, as quoted on CCIL's website
Market Risk Premium (ERP)	7.0%	7.0%	7.0%	7.0%	Based on historical realized returns on equity investments over a risk free rate represented by 10 years government bonds, a 7% equity risk premium is considered appropriate for India
Beta (Relevered)	0.70	0.69	0.69	0.70	Beta has been considered based on the beta of companies operating in the similar kind of business in India
Cost of Equity (Ke)	12.0%	12.0%	12.0%	12.1%	Base Ke = Rf + (β x ERP)
Company Specific Risk Premium (CSRP)	2.0%	2.0%	2.0%	1.0%	Based on SPV specific risk(s)
Revised Cost of Equity (Ke)	14.0%	14.0%	14.0%	13.1%	Adjusted Ke = Rf + (β x ERP) + CSRP
Pre-tax Cost of Debt (Kd)	8.65%	8.65%	8.65%	8.65%	As represented by the Investment Manager
Tax rate of SPV	18.4%	20.0%	19.4%	17.5%	Tax Rate Applicable to SPVs is considered
Post-tax Cost of Debt (Kd)	7.1%	6.9%	7.0%	7.1%	Effective cost of debt. Kd = Pre tax Kd * (1-Effective Tax Rate)
Debt/(Debt+Equity)	50.0%	50.0%	50.0%	50.0%	Debt : Equity ratio computed as [D/(D+E)]
WACC	10.6%	10.5%	10.5%	10.1%	WACC = [Ke * (1 - D/(D+E))] + [Kd * (1-t) * D/(D+E)]

Appendix 3.1 – NBL: Summary of approval and licences

Sr. No.	Description of the permits	Issuing Authority	Validity/ Current status	In PPM Or Not	Document
1	Environmental Clearance No. 5-22/2007-IA-III (MH/AP to Armur, Andhra Pradesh) dated June 11, 2007	Ministry of Environment & Forest (IA-III Division), NHA		yes	yes
2	Approval of Installation of DG set dated 08.09.2009	Government of Andhra Pradesh, Electrical Inspectorate	Lifetime	yes	yes
3	Bore well permit			no	yes
i	Lr No:107/T/2019	Govt of Telengana Ground Water Dept.	Lifetime	no	yes
ii	Lr No:107/T/2019	Govt of Telengana Ground Water Dept.	Lifetime	no	yes
iii	316/T4/Drinking/2019-20	Govt of Telengana Ground Water Dept.	Lifetime	no	yes
4	Provisional completion certificate dated July 22, 2009	Aarvee Associates		yes	yes
5	Completion certificate dated October 8, 2018	MSV International Inc.		yes	yes
6	Registration certificate of establishment dated December 1, 2020	Labour Department, Government of Telangana	December 31, 2021	yes	yes

Source: Investment Manager

Appendix 3.2 – SEPL: Summary of approval and licences

Sr. No.	Description of the permits	Issuing Authority	Validity/ Current status
1	Labour License No. GH.46 (120)/2010-L dated 10.08.2010	GOI Office of the Deputy Chief Labour Commissioner(Central)	09.08.2023
2	Approval for installation of a DG set	Government of Meghalaya, Inspectorate of Electricity	05.07.2023
3	Provisional completion certificate dated July 12, 2013	URS Scott Wilson India Pvt. Ltd	
4	Completion certificate dated March 30, 2017	Feedback Infra Private Limited	

Source: Investment Manager

Appendix 3.3 – DBCPL: Summary of approval and licences

Sr. No.	Description of the permits	Issuing Authority	Validity/ Current status
1	Environmental Clearance No. 5-43/2006-IA-III (Sehore bypass to Dewas bypass, Madhya Pradesh)	Ministry of Environment & Forest (IA-III Division), NHAI	
2	Labour License No. 45056 dated 15.12.2021 (For Amlhala Toll Plaza)	Govt of MP Office of Licensing officer SEHORE	31.12.2023
3	Labour License No. 45061 dated 21.12.2021 (For Fanda Toll Plaza)	Govt of MP Office of Licensing officer SEHORE	31.12.2023
4	Labour License No. 42972 dated 03.12.2020 (For Bhourasa Toll Plaza)	Govt of MP Office of Licensing officer SEHORE	31.12.2023
5	Air (Prevention & Control of Pollution) Act, 1981		
i	Fanda Toll Plaza CTE-68241	Government of Madhya Pradesh	24.06.2024
ii	Amlaha Toll Plaza CTE-68239	Government of Madhya Pradesh	24.06.2024
6	Applications for Issue of NOC to Abstract Ground Water (NOCAP)		
i	21-4/915/MP/INF/2020	Government of India (Ministry of Jal Shakti)	06.06.2027
ii	21-4/911/MP/INF/2020	Government of India (Ministry of Jal Shakti)	03.07.2027
iii	21-4/914/MP/INF/2020	Government of India (Ministry of Jal Shakti)	06.06.2024
7	Provisional completion certificate dated February 10, 2009	MPRDC	
8	Completion certificate dated August 7, 2009	MPRDC	
9	Provisional completion certificate dated September 17, 2009	MPRDC	
10	Completion certificate dated February 3, 2010	MPRDC	
11	Provisional completion certificate dated April 30, 2009	MPRDC	

Source: Investment Manager

Additional Approvals: Approval to install a DG set dated June 7, 2012 issued by Office of Executive Engineer, Electrical Safety and Divisional Electrical Inspector, Madhya Pradesh, Government, under the provisions of the Electricity Act, 2003, Indian Electricity Rules, 1956 and Madhya Pradesh Electricity Charges Act, 1949

Appendix 3.4 – GEPL: Summary of approval and licences

Sr. No.	Description of the permits	Issuing Authority	Validity
1	Environmental Clearance No. 5-27/2008-IA.III (Ahemdabad, Gujarat to Madhya Pradesh/Gujarat border.	Ministry of Environment & Forest (IA Division), NHAI	Lifetime
2	Labour License No. ALC/ADI/46(56)/2017 dated 28.02.2017	Office Asst Labour Commissioner(C) Ahmedabad	27.02.2024
3	DG installation certificate No/EI/Nad/Certi/2716/2018	Office of the Electrical Inspector	Lifetime
4	Groundwater extraction NOC		
i	GWA/NOC/INF/ORIG/2020/9605	Central Ground Water Board West Central Region	24.12.2025
ii	CGWA/NOC/INF/ORIG/2020/9551	Central Ground Water Board West Central Region	21.12.2025
iii	CGWA/NOC/INF/ORIG/2021/10553	Central Ground Water Board West Central Region	28.01.2026
iv	CGWA/NOC/INF/ORIG/2021/9755	Central Ground Water Board West Central Region	02.01.2026
5	Provisional certificates dated (i) October 31, 2013 and (ii) September 25, 2015	Intercontinental Consultants and Technocrats Pvt. Ltd.	Lifetime
6	Completion certificate dated June 29, 2016	MSV International Inc.	Lifetime

Source: Investment Manager

Appendix 3.5 – JPEPL: Summary of approval and licences

Sr. No.	Description of the permits	Issuing Authority	Validity/ Current status
1	Sanction of CRS for Launching Scheme of composite girder in Railway Portion in connection with the work of widening of existing Road over Bridge at Railway km 689/8-9 on Luni-Marwar junction section of Jhodpur division. CRS Ref no. JU/05/2015-16 dated 22.04.2015	Dy Chief Engineer/Const. North-Western Rly, Jhodpur	
2	Labour License No. AJ(L)412/2014/-ALC dated 25.11.2014	Licensing officer and Asst Labour Commissioner(C) Ajmer	24.11.2022
3	Certificate for registration of DG set (2 Set of 415kv Ref no: JPEPL/OTH/2021-22/004 dated 29.06.2021)	Government of Raj, Electrical Inspector, Jhodpur	
4	BOCW BOCW/ ALCAjmer/ 2019/R-24	Assistant Labour commissioner	Lifetime
5	WIM & SWB stamping 018632, 018633, 018634 & 018690, 018691, 018692	Weights and Measures Department	Regarding WIM calibration, SPV has informed to the weights and measure dept. that calibration is not required for the non-operational WIM as per the circular no. WM/19/134/2018 dated 14.01.2019
6	For Energization of DG Installation EI/JDR/PP/2021-22/310	Electrical Inspectorate , Rajasthan	Lifetime
7	Registration certificate dated December 20, 2019		

Source: Investment Manager

Appendix 3.6 –UEPL: Summary of approval and licences

Sr. No.	Description of the permits	Issuing Authority	Validity/ Current status
1	Environmental Clearance No. 18-18/2004-IA-III (Tindivandam to Trichy bypass, Tamilnadu)	Ministry of Environment & Forest (IA Division), NHAI	
2	Certificate for registration of captive generating unit (Reg ID: CUD 59/2016-17/HT dated 22.09.2020	Government of Tamil Nadu, Electrical Inspector, Cuddalore	22.06.2025
3	Fire Service License (K.Dis.No : 6655/A2/2021 dated 27.09.2021)	Tamil Nadu Fire and Rescue Service Department	26.09.2023
4	Certificate of registration dated December 10, 2019	Ministry of Labour and Employment	31.12.2027
5	Consent to establish for Air dated October 30, 2018	Tamil Nadu Pollution Control Board	Payment done till the end of Concession period i.e.2027, It's in process.
6	Consent to establish for Water dated October 30, 2018	Tamil Nadu Pollution Control Board	
7	Certificate of verification (WIM Stamping)	Legal Metrology Officer	31.12.2023
8	<u>NOC for Ground water</u>		
i	201/2020	Chief Engineer, (SG & SWRDC) PWD, Tharamani, Chennai-114 (State Ground & Surface Water Resources Data Centre)	23.07.2023
ii	202/2020	Chief Engineer, (SG & SWRDC) PWD, Tharamani, Chennai-114 (State Ground & Surface Water Resources Data Centre)	23.07.2023
iii	203/2020	Chief Engineer, (SG & SWRDC) PWD, Tharamani, Chennai-114 (State Ground & Surface Water Resources Data Centre)	23.07.2023
iv	204/2020	Chief Engineer, (SG & SWRDC) PWD, Tharamani, Chennai-114 (State Ground & Surface Water Resources Data Centre)	23.07.2023
v	205/2020	Chief Engineer, (SG & SWRDC) PWD, Tharamani, Chennai-114 (State Ground & Surface Water Resources Data Centre)	23.07.2023
9	Provisional completion certificate dated July 22, 2009	Intercontinental Consultants and Technocrats Pvt. Ltd.	
10	Completion certificate dated August 4, 2016	CDM Smith India Private Limited	

Source: Investment Manager

Appendix 4.1 – NBL: Summary of Ongoing Litigations

Sr. No	Matter	No. of Suits	Pending Before	Particulars	Amount Involved (INR Million)
1	Civil Suit	1	High Court of Judicature, Andhra Pradesh	<p>Background of the case: NBL has filed a writ petition before the High Court of Judicature, Andhra Pradesh at Hyderabad ("Court"), against The District Registrar and the Inspector General of Stamps and Registration in relation to payment of certain stamp duty on the NBL Concession Agreement. The District Registrar had called upon the Petitioner to pay an alleged deficit stamp duty amount of approximately ₹ 135.80 million in relation to the NBL Concession Agreement. The Petitioner prayed that the demand for such stamp duty be set aside by the Court as the same is not required to be paid on concession agreements. The Respondents have filed their response to the Petition. Simultaneously, the Petitioner has also filed an interim application praying for a stay in respect of all further proceedings in relation to recovery of the alleged deficit stamp duty and other amounts until the disposal of the Petition. Subsequently, the Court by way of its order dated June 9, 2011 granted a stay in respect of all further proceedings and in relation to recovery of a token amount of ₹ 0.5 million from the Petitioner. The matter is currently pending.</p> <p>Current Status: The matter is currently pending before the Telangana High Court.</p>	135.8
2	Taxation Proceedings	1	Service Tax Demand	<p>Background of the case: Based on ITR filed and service tax return filed, Tax Authorities observed that the Company declared turnover of Rs. 47,60,00,000 in ITR for FY 2015-16, however turnover declared in Service tax return was 'Zero'. The Company availed Mega Exemption Notification (No. 25/2012-ST dated 20th June, 2012, however, Tax Authorities have not extended the said notification benefit. and issued demand order is for following demands :-</p> <ol style="list-style-type: none"> 1. Service tax demand of Rs.6,90,20,000/- including cess on taxable services and applicable interest 2. Penalty @100% of service tax liability for non payment of service tax liability 3. Penalty of Rs. 10,000 for non-payment of taxes electronically 4. Penalty of 10,000 for non-disclosure of exempt income in ST-3 returns for the period <p>Current Status: The company applied for an expedited hearing and matter was heard on March 14, 2023. The CESTAT has remanded the case back to Adjudicating Authority.</p>	138.1

Source: Investment Manager

Appendix 4.2 – SEPL: Summary of Ongoing Litigations

Sr. No	Matter	No. of Suits	Pending Before	Particulars	Amount Involved (INR Million)
1	Civil Suit	1	Delhi High Court	<p>Background of the case: SEPL raised certain claims before the Arbitral Tribunal ("Tribunal"), against NHAI in relation to certain delays and defaults on part of NHAI, which resulted in breach of various provisions of the SEPL Concession Agreement. Such defaults by NHAI included, amongst others, (i) change in scope, (ii) faulty and factually incorrect drawings, and (iii) additional requirement of land ("Defaults"). Due to such Defaults, SEPL was not able to complete the relevant project highway as per the proposed timeline and in relation to which SEL also put forth eight claims before the Tribunal. The Tribunal by way of its award dated June 27, 2018, awarded a claim of ₹ 274.20 million in favour of SEL along with advancing the annuity dates as prayed by SEPL ("Award"). Subsequently, SEPL filed an execution petition dated October 26, 2018 ("Execution Petition") before the High Court of Delhi ("Court") for seeking the execution of the decree and direction to NHAI to pay the amount as sought by the Award. Thereafter, NHAI filed an application before the Court for setting aside the Award, which was dismissed by the Court by its order dated November 2, 2018 ("Court Order"). Thereafter, NHAI filed an appeal dated January 7, 2019 ("NHAH Appeal") challenging the Court Order before the Commercial Appellate Divisional bench of the Court ("Appellate Bench"). The Appellate Bench by way of an interim order dated January 22, 2019 directed NHAI to deposit the amount towards additional bonus annuity i.e. ₹ 106.30 million with an additional interest amount of ₹ 37.20 million with the Court within a period of four weeks. Further the Court upheld the rest of the Award. The direction was complied with by NHAI.</p> <p>Current Status: The matter is currently pending before the Delhi High Court in respect to the Execution Petition and the NHAH Appeal.</p>	143.5
2	Taxation Proceedings	1	CIT(Appeal)	<p>Background of the case: Refund as per ITR filed was Rs. 122,90,600 against which Company received refund of Rs.20,58,450/- on July 5, 2020 Demand for Financial Year 2016-17 of Rs. 158,779/- adjusted against refund for Financial Year 2017-18. Scrutiny assessment proceeding have been completed by the AO after disallowance as per the 143(1)(a) adjustment proposed by CPC</p> <ul style="list-style-type: none"> - for finance charges on preference shares - cash payment u/s40A(3) - double addition of transition amount in MAT computation - tax calculated @ 30% instead of 25% under normal provisions of the Act. <p>The Company has filed as appeal with CIT (Appeal) for all above disallowances on March 16, 2021 vide acknowledgement number 292147381160321</p> <p>Current Status: The matter is currently pending.</p>	10.1

Source: Investment Manager

Appendix 4.3 – DBCPL: Summary of Ongoing Litigations

Sr. No	Matter	No. of Suits	Pending Before	Particulars	Amount Involved (INR Million)
1	Civil	1	MP High Court	Background of the case: DBCPL has filed writ petition (no. 10812 of 2011) in MP High Court against imposition of labor cess amounting INR 4.68 Cr. under Building and other construction workers Welfare Cess Act, 1996. Current Status: The matter is currently pending before the MP High Court.	46.8
2	Civil	1	Supreme Court	Background of the case: DBCPL has filed special leave petition (civil) (no. 14693 of 2010 - converted into Civil Appeal No. 8987 of 2013) in Supreme Court against final order passed by MP High Court on 11 Feb. 2010 in regards to applicability of 2% stamp duty (on TPC) on execution of Concession Agreement. Current Status: The matter is currently pending before the Supreme Court.	89
3	Civil	0	MP Arbitral Tribunal	Background of the case: Claim under Change in Law provisions of the Concession Agreement for actual toll revenue loss due to suspension of toll collection by MPRDC from 09 Nov. 2016 to 02 Dec. 2016 due to demonetization of specified bank notes by Govt. of India. Current Status: The matter has been disposed of by AT. Matter has been closed	60.9
4	Civil Suit	1	Labour Court Bhopal	Background of the case: Mukesh Chandravanshi and Manohar Singh Rajput ("Complainants"), erstwhile employees of DBCPL have filed two separate complaints before the Labour Court, Bhopal, in relation to wrongful termination of their employment by DBCPL. DBCPL claimed that the termination of Complainants was due to (i) the Complainants stopping toll collection at DBCPL's toll plazas and allowing vehicles to cross without payment of toll on December 30, 2015, and (ii) misbehaviour of Complainants with other senior employees of DBCPL. Current Status: The matter is currently pending. Current status is same	Not quantifiable
5	Criminal Suit	1	L.D. Judicial Magistrate, First Class, Sonkutch (Dist. Dewas)	Background of the case: DBCPL has filed a criminal complaint before the court of L.D. Judicial Magistrate, First Class, Sonkutch (Dist. Dewas) against its erstwhile accountant, Sameer Kumar Jha under section s 408 and 420 of the Indian Penal Code, 1860, read with section 200 of the Code of Criminal Procedure, 1973, in relation to unauthorised absence from service and misappropriation of an amount of approximately ₹0.09 million. Current status: The matter is currently pending. Current status is same	0.1
6	Taxation Proceedings	1	CIT (Appeal)	Background of the case: 1. Major Maintenance Expenses of INR 359.4 mn claimed as deduction was treated as capital expenditure and disallowed; it was allowed to be amortized over a period of 25 years, i.e. INR 14.38 mn was allowed for FY17. Hence, net disallowance of INR 345 mn. 2. Disallowance under section 14A of the ITA (Expenses incurred to earned exempt income) of INR 0.82 mn. 3. Demand of Rs. 10,30,84,559 as per Demand Order dated December 23, 2019. Current status: Appeal filledwith CIT(A)	345.8

Source: Investment Manager

Appendix 4.4 – GEPL: Summary of Ongoing Litigations

Sr. No	Matter	No. of Suits	Pending Before	Particulars	Amount Involved (INR Million)
1	Taxation Proceedings	2	CIT(Appeal)	<p>Background of the case: 1. Completed Assessment under section 143(3) ; the AO added INR 666.11 Mn being excess depreciation claim at the rate of 25% on intangible asset over amortization of the same over the life of the project. Subsequently, an appeal has been filled with CIT(A)</p> <p>2. Completed Assessment under section 143(3) ; the AO added INR 417.55 Mn being excess depreciation claim at the rate of 25% on intangible asset over amortization of the same over the life of the project. Subsequently, an appeal has been filled with CIT(A)</p> <p>Current Status: The matter is currently pending.</p>	1083.7
2	Taxation Proceedings	1		<p>Background of the case: The AO made following additions aggregating to INR 10.48mn and raising demand of INR 3.63mn:</p> <ul style="list-style-type: none"> - Adding interest on investment of idle funds as IFOS instead of allowing adjustment against C-WIP– INR 8.78mn; and - Disallowing income-tax expense and interest on delayed payment of TDS – INR 1.70 mn, and charging the same as income, even though the said amounts were debited to C-WIP and not charged to profit and loss account. <p>Application to stay of demand was filed with AO and an amount of Rs 0.54mn was deposited under protest , however, the balance demand amount was adjusted by tax department from the refund dues for subsequent years.</p> <p>On appeal before the CIT(A), the order of AO was upheld; Subsequently, an appeal has been preferred with the Hyderabad ITAT against the CIT(A) order; ITAT Order was received on 07.09.2021. No further appeal was initiated by the company</p> <p>Notice under sub-section (1) of Section 142 of the Income Tax Act, 1961 Received on 24 Feb 2023 for submitting additional documents in support to reasons recorded by AO :- Reply made on 15 March 2023 for submitting additional Documents</p> <p>Current Status: Notice of demand under section 156 of the Income-Tax Act, 1961 on 29 March 23 Amounting to Rs 40,31,620. Appeal is been filled against demand notice.</p>	4.0

Source: Investment Manager

Appendix 4.5 – JPEPL: Summary of Ongoing Litigations

No Material Ongoing Litigations

Appendix 4.6 – UEPL: Summary of Ongoing Litigations

Sr. No	Matter	No. of Suits	Pending Before	Particulars	Amount Involved (INR Million)
1	Civil Suit	0	High Court of Judicature at Madras	<p>Background of the case: 1. UEPL ("Petitioner") has filed a writ petition before the High Court of Judicature at Madras ("High Court"), against The Secretary (Transport), Government of Tamil Nadu ("Respondent") in relation to certain pending toll fees from the Respondent. UEPL alleged that the Respondent was involved in plying buses enrolled under the monthly passes issued by the Petitioner more frequently than permitted and also plying different busses other than those enrolled with the monthly passes. The amount involved in this matter is approximately ₹ 128 million, along with an interest amount of 18% p.a. for the period between July 2009 until December 2011, which allegedly remains unpaid in relation to three depots of the Petitioner. The last hearing in this matter was scheduled on November 23, 2022, wherein Court has appointed a mediator as per agreement between both the parties. Both the petitioner and the respondents are required to produce their accounts and arrive at a settlement and the Mediator is requested to conclude mediation proceedings within a period of four months. Accordingly, this Writ Petition is disposed off.</p> <p>Current Status: The Writ Petition is disposed off.</p>	128.0
2	Civil Suit	0	Arbitral Tribunal	<p>Background of the case: 1. Claim under Concession Agreement provisions for Material Default by NHAI for actual toll revenue loss due to suspension of toll collection by NHAI from 03 December 2015 to 18 December 2015 due to flood situation in State of Tamil Nadu.</p> <p>2. Claim under Change in Law provisions of the CA for actual toll revenue loss due to suspension of toll collection by NHAI from 09 November 2016 to 02 December 2016 due to demonetization of specified bank notes by Govt. of India.</p> <p>Current Status: The matter has been settled.</p>	123.9
3	Taxation Proceedings	1	CIT (Appeal)	<p>Background of the case: The following items have been disallowed:</p> <p>(a) Rs. 17,869,492 under Section 14A of the IT Act</p> <p>(b) Mark to market gain on mutual fund of Rs. 709,554</p> <p>(c) Interest expense of Rs. 172,20,000 under Section 36(1)(iii) of the IT Act</p> <p>Current Status: The matter is currently pending</p>	35.8

Source: Investment Manager

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