

Third Party Review – DME Development Ltd. (DMEDL) Green Bond

November 2024

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A. Executive Summary

CareEdge Advisory, Division of CARE Analytics and Advisory Private Limited (previously known as CARE Risk Solutions Private Limited); (hereinafter referred to as 'CareEdge Advisory' or 'the TPR') is of the opinion that the Green Bond of DME Development Ltd. ("DMEDL") is credible and impactful and aligns with **four core components of Green Bond Principle 2021**¹. The projects fall under the following **Green Bond Principles (GBP) project taxonomy**²: (i) **Terrestrial & Aquatic biodiversity conservation**, (ii) **Renewable energy**, (iii) **Environmentally sustainable management of living natural resources and land use**, (iv) **Sustainable water and waste water management**, and, (v) **Pollution prevention and control projects**.

The green bond qualify under **SEBI Green Debt Securities (GDS) notification no. SEBI/HO/DDHS/DDHS-RACPOD1/P/CIR/2023/023 dated 6 February 2023**³ [as defined under Clause 2(1)(q) of **SEBI NCS regulation SEBI/LAD-NRO/GN/2021/39 dated 9 Aug 2021**⁴] under the following categories: (i) **Biodiversity conservation**, (ii) **Renewable and Sustainable energy including wind, bioenergy, other sources of energy which use clean technology**, (iii) **climate change adaptation including efforts to make infrastructure more resilient to impacts of climate change and information support systems such as climate observation and early warning systems**, (iv) **Sustainable water management**, (v) and; (vi) **Sustainable waste management including recycling, waste to energy, efficient disposal of wastage**.

Further, the proposed Green Bond is qualified for **Framework for Sovereign Green Bond**⁵. This will qualify for (i) **Terrestrial and Aquatic Biodiversity Conservation**, (ii) **Natural Resource Conservation**, (iii) **Renewable Energy**, (iv) **Sustainable Water and Waste Management**, (v) **Pollution Prevention and Control**.

To reach this conclusion, CareEdge Advisory has (i) held discussions with the team at DMEDL, (ii) reviewed documents submitted by DMEDL, and; (iii) examined the Green Bond Framework developed by DMEDL.

Review Date	12 November 2024
Issuer Name	DME Development Ltd. (DMEDL)
Issuer Location	Delhi
Scope	Providing Third Party Review on conformance of DMEDL's Green Bonds with respect to (i) SEBI NCS regulations 2021 , (ii) ICMA Green Bond Principles June 2021 with June 2022 Appendix and (iii) Framework of Sovereign Green Bonds .
ISIN No.	** ISIN No. to be inserted once available**
Third Party Reviewer	CARE Analytics and Advisory Pvt. Ltd. (CareEdge Advisory)

¹ Please see ICMA Green Bond Principle (GBP) Standard (<https://www.icmagroup.org/assets/documents/Sustainable-finance/2022-updates/Green-Bond-Principles-June-2022-060623.pdf>) June 2021 (with June 2022 Appendix). SEBI notification accessed on 22 October 2024.

² ICMA Green Bond Project Taxonomy (<https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Project-Mapping-June-2021-100621.pdf>) dated June 2021. SEBI notification accessed on 22 October 2024.

³ SEBI Green Debt Securities Notification https://www.sebi.gov.in/legal/circulars/feb-2023/revised-disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_67837.html, please see **Annexure 1** of this report. SEBI notification accessed on 22 October 2024.

⁴ SEBI Issue and Listing of Non-Convertible Securities) Regulations, 2021 https://www.sebi.gov.in/legal/regulations/sep-2024/securities-and-exchange-board-of-india-issue-and-listing-of-non-convertible-securities-regulations-2021-last-amended-on-september-18-2024_86834.html. Please see Sec. 2 (1) (q). SEBI notification accessed on 22 October 2024.

⁵ Please refer to Framework for Sovereign Green Bonds. Govt. of India. <https://dea.gov.in/sites/default/files/Framework%20for%20Sovereign%20Green%20Bonds.pdf>

B. Introduction

The Delhi – Mumbai Expressway (“DME” or “the Expressway”) is one of the flagship expressway project, currently being executed by National Highways Authority of India (“NHAI” or “the Sponsor”). It is an access controlled 8 - lane expressway with a design speed of 120 km/hr which is expected to unlock new economic opportunities in the hinterland districts.

To raise finance for the project, NHAI incorporated a wholly owned subsidiary, constituted on 29th August 2020, “DME Development Limited” (“DMEDL”). NHAI and DMEDL (the ‘Company’) entered into a Concession Agreement to undertake the financing, development, operation, maintenance, and management of the expressway. DMEDL subsequently entered into an Implementation Agreement with NHAI to transfer the rights to NHAI for procurement, construction, operation, maintenance, and monitoring of the expressway. Wherein, the responsibility of land acquisition, approvals and clearances will be managed by NHAI, and cost related to it will be paid by NHAI.

DMEDL is headed by Chairman, appointed by NHAI.

C. Scope and Objectives:

DMEDL will be issuing the Green Bonds to reimburse green activities, that will have positive environmental impacts along the DME. The bond proceeds will be used to reimburse the activities and have been defined in **Table 1** below.

DMEDL has commissioned CareEdge Advisory to provide a Third Party Review on its upcoming Green Bonds issuance for its conformance w.r.t. **SEBI NCS Regulation, ICMA Green Bond Principles June 2021 with June 2022 Appendix (GBP)**, and **Govt. of India's Framework for Sovereign Green Bond (SGB)**.

Please note that, CareEdge Advisory's opinion should not be construed as an assessment of: *(i) technical soundness of the proposed project(s), (ii) financial performance / solvency of project(s), and/or; (iii) creditworthiness of DMEDL. It is solely an opinion on the Environmental, Social, and/or Governance aspects related to the green bond in compliance with the SEBI NCS, ICMA GBP and SGB Framework.* Please refer to our Disclaimer (please see pg. 21) for further details.

D. CareEdge Advisory's Third-Party Review

For forming our opinion on DMEDL's Green Bond, CareEdge Advisory has evaluated the following five components, viz.: (i) Use of Proceeds, (ii) Selection and Evaluation of Green Activities, (iii) Tracking the Deployment of Proceeds, (iv) Reporting, and; (v) External Review Mechanism.

CareEdge Advisory has found DMEDL's practices to be credible, effective, and in these line with the extant market practices. Details description of these are provided below.

a. Use of Proceeds

Green activities that are qualified under DMEDL's Green Bond Framework are provided in **Table 1**. These are consistent with those recognised by the SEBI NCS, ICMA GBP and Indian Sovereign Green Bond Framework. CareEdge Advisory believes that funds raised from the issuance of the bonds are expected to: (i) improve mobility between Delhi and Mumbai, (ii) maintain biodiversity by increasing tree coverage and managing risks of Man-Animal conflict through animal underpasses/overpasses, (iii) encourage water and waste management through activities such as stormwater drainage, Amrit Sarovar and use of fly ash in road construction.

Table 1 - Use of Proceeds defined in DMEDL's Green Bond Framework

#	Green activities	Environment and/or social impacts	SEBI NCS Regulation, 2021	ICMA Green Bond Category	Sovereign Green Bond Framework
1.	Animal underpasses / animal overpasses	Construction of animal underpass and overpass at 5 selected location along the length of DME, with a cumulative length of 2.5 km. This will reduce chances of man-animal conflicts, and help connectivity without disrupting wildlife.	SEBI Green Debt Security (GDS) Category no. [2.(q)(vii)]	Terrestrial & Aquatic biodiversity conservation	Terrestrial and Aquatic Biodiversity Conservation
2.	Median Lane Plantation /Avenue plantation / Arboriculture	Increases tree cover along the road stretch. This will help in air pollution reduction and GHG emission reduction.	SEBI GDS Category no. [2.(q)(vii)]	Terrestrial & Aquatic biodiversity conservation	Natural resource conservation
3.	Street lights on renewable energy (solar)	Deployment of street lights on solar will save energy, reduce OPEX, and reduce project level GHG emissions.	SEBI GDS Category no. [2.(q)(i)]	Renewable Energy	Renewable Energy
4.	Natural stormwater drainage (including Lined and Unlined Drains)	Will help in groundwater recharge and greenery development.	SEBI GDS Category no. [2.(q)(iii)]	Environmentally sustainable management of living natural resources and land use	Sustainable Water and Waste Management
5.	Amrit Sarovar (Ponds) Construction	Will help in improving local groundwater levels, and local people's lives and livelihood.	SEBI GDS Category no. [2.(q)(x)]	Sustainable water and waste water management	Sustainable Water and Waste Management
6.	(a) Waste Recycling – Fly Ash Utilization	Will help in utilization of fly ash from Thermal Power Plants (TPP), which will otherwise pollute environment.	SEBI GDS Category no. [2.(q)(v)]	Pollution prevention and control projects	Pollution Prevention and Control
	(b) Waste Recycling – Construction	Will reduce the utilization of natural aggregates, thereby reducing the chances of	SEBI GDS Category no. [2.(q)(v)]	Pollution prevention and control projects	Pollution Prevention and Control

#	Green activities	Environment and/or social impacts	SEBI NCS Regulation, 2021	ICMA Green Bond Category	Sovereign Green Bond Framework
	and Demolition waste (incl. inert / alternate material used)	secondary environmental damages like deforestation / landslides.			
7.	Rainwater Harvesting	Will help in groundwater recharge and greenery development.	SEBI Green Debt Security (GDS) Category no. [2.(g)(x)]	Sustainable water and waste water management	Sustainable Water and Waste Management

Opinion: CareEdge Advisory considers the DMEDL's Use of the Proceeds selected in line with (i) SEBI's Green Debt Security Guideline and Non-Convertible Security Regulations, (ii) ICMA's GBP Guidelines, and SGB Principles. These will have distinctive long-term Environmental and Social benefits.

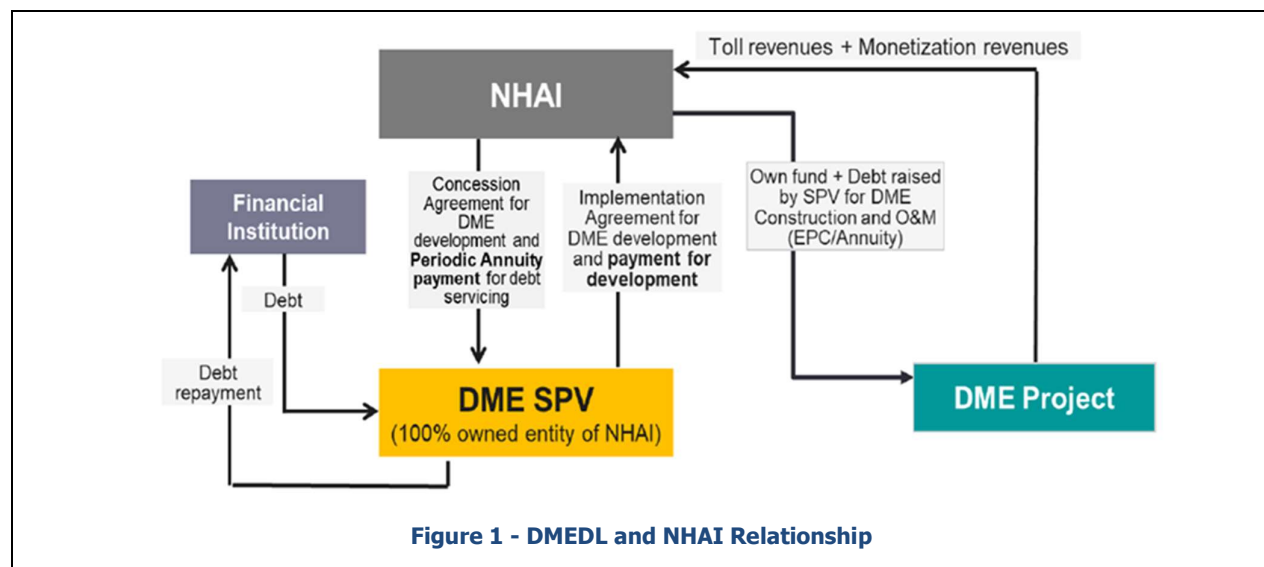
b. Project Evaluation and Selection

DMEDL's Board of Directors will be responsible for strategy, financial activities and sustainability goals. DMEDL has already defined a set of criteria for defining the Use of Proceeds. The same is presented in **Table 1**. The Board of Directors have delegated powers to Chairman, DMEDL to evaluate the Eligible Green Activities in-line with DMEDL's strategy based on criteria to assess the project as an "Eligible Green Activities".

The sanctioning of Green Bond amount for utilization will be approved by the Chairman, DMEDL.

The sanction will be based on demand raised by NHAI against the expenses incurred in green activities.

DMEDL's role is limited to financing DME project, whereas the parent entity, NHAI is responsible for design, construction, operationalization and maintenance of the DME project. The relationship between DMEDL and NHAI is shown in below.



DMEDL's framework states that, at the inception of all project NHAI ensures that the **project follows Indian Environmental, Occupational Health & Safety and Social Regulations**, like the Air and Water Pollution Protection Act and Rules.

During the design and construction stage of each project, **NHAI** (DMEDL's Parent organization) employs **EPC / HAM contractor(s)**, who designs the road stretch and associated amenities as per pertinent **Indian Road Congress (IRC) standards and/or Indian Standards (IS) codes**, procures services of eligible sub-contractors and supervises sub-contractor's performances as per design. The activities, which meet the eligibility criteria have been laid down in **Table 1**. The verification of the eligible green projects is guided by this framework.

The EPC / HAM contractor's performance is supervised by NHAI's expert technical staff members. The EPC / HAM contractor(s) and NHAI's expert team(s) are supported by both NHAI's and EPC / HAM contractor's Environment, Health & Safety (EHS) teams.

In addition, regulatory clauses for construction phases included in the Environmental Clearances (EC), Forest Clearance (FC), Consent to Establish (CTE) and Consent to Operate (CTO) will guide the performance of the contractors.

During the operational stage, NHAI teams will be guided by the clauses included in the EC.

The green activities associated with DME are guided by: (i) NHAI's tender specifications, (ii) IRC/IS standards of design, (iii) regulatory guidelines, (iv) supervised by both NHAI's technical staff and EPC / HAM contractor's engineering teams, and; (v) DMEDL's Green Bonds Framework.

Opinion: As DMEDL is a SPV for raising capital, its parent entity, NHAI is responsible for operations on ground. NHAI has process(es) in place to: (i) identify and manage project-specific ESG risks associated with all eligible green activities, (ii) incorporate standard EHS clauses in contractor's / sub-contractor's agreement, (iii) supervise contractor's performance.

CareEdge Advisory is satisfied with the above arrangement(s).

c. Tracking the Deployment of Proceeds

DMEDL will open a dedicated account for credit of green bond proceeds, and its utilization.

The account will be monitored by an external auditor, to be appointed by DMEDL as per clause 2.1 of SEBI Green Debt Regulations⁶. The external auditor will certify: (i) parking of the fund raised through green bond issuance, and; (ii) monitoring deployment as per selected Use of Proceeds from time to time.

The Finance Department of DMEDL will be responsible for: (i) monitoring the fund inflow and; (ii) provide relevant information to the external auditors.

Any unutilized amount will be parked in the same dedicated account and can't be utilized for any other purpose other than those listed in **Table 1**.

Opinion: CareEdge Advisory is of the opinion that DMEDL's proposed fund management practice is in line with extant market practice.

d. Reporting

As long as DMEDL Green Bonds are outstanding, DMEDL will annually report on its website along with external verification:

- i. The use of proceeds (list of green activities, activity type, location and amounts allocated) for each Green Bond issued;

⁶ Please refer to SEBI GDS regulation Cl. 2.1 https://www.sebi.gov.in/legal/circulars/feb-2023/revised-disclosure-requirements-for-issuance-and-listing-of-green-debt-securities_67837.html

- ii. The current allocated and outstanding amounts (or percentages) and contractual maturity dates;
- iii. Amounts allocated for reimbursement to NHAI (where and as applicable);
- iv. Management confirmation that the use of proceeds of these Green Bonds are in alignment with the DMEDL's Green Bond Framework.

Wherever applicable and possible, DMEDL will also report the material developments and/or other environmental impact of the investments on its website (<http://www.dmedl.in//>).

Opinion: CareEdge Advisory is of the belief, that this is acceptable and in line with the extant market practice.

e. *External Review Mechanism*

i. **Third Party Review**

DMEDL **Green Bond framework** will be published on its website (<http://www.dmedl.in//>) along with **this Third Party Review Certificate** provided by CareEdge Advisory.

ii. **Post Issuance External Verification**

To provide a timely and transparent information about the reporting of the allocation of funds from Green Bond issued under this framework, DMEDL has engaged M/s CareEdge Analytics and Advisory Pvt. Ltd., third-party external **annual reviewer** to provide an opinion on the following aspects:

1. Verify that **utilization of proceeds is in accordance with stated objectives of use of proceeds** as mentioned in the Framework.(basis external auditor's report)
2. Assess the management of proceeds and of unallocated proceeds, if any. (basis external auditor's report).
3. Monitor the expenditure towards and impacts of selected green activities.

The annual verification report will be published on its website (<http://www.dmedl.in//>)

Opinion: CareEdge Advisory is of the opinion that DMEDL's practice of publishing (i) its Green Bond Framework, (ii) Third Party Review Certificate, and (iii) Annual Review on its website are in line with extant market practice.

Annexure 1: DME Development Ltd. (DMEDL)'s Green Bond's compliance with SEBI Requirements

SEBI has stipulated the following guidelines in their Circular No. SEBI/HO/DDHS/DDHS-RACPOD1/P/CIR/2023/023 dt. 6 February 2023 captioned 'Review of Chapter IX – Green Debt Securities of the Operational Circular for issue and listing of Non-Convertible Securities (NCS), (hereinafter referred to as the 'NCS Operational Circular'), as amended from time to time'. The 'Response' section in the following table presents a summary how the aforementioned DMEDL bond conform with the said SEBI requirement.

Table 2 – DMEDL's requirements with SEBI NCS requirements dt. 6th February 2023

#	Clause	Reference in the Report	Response
1.1	A statement on environmental sustainability objectives of the issue of green debt securities	Please refer to Annexure 2: Need and Benefits of the Projects	Please refer to Annexure 2: Need and Benefits of the Projects . Please read in conjunction with Table 1. Table 5 presents the alignment of the designated Use of Proceeds with alignment with UN Sustainable Development Goals (SDGs).
1.2	Brief details of decision-making process followed/proposed for determining the eligibility of project(s) and/or asset(s), for which the proceeds are being raised through issuance of green debt securities, such as:	Please refer to Sec. D(b) for details of Selection of green activities along the DME project .	DMEDL's Green Bond Framework provides the authority to its Board for the selection of the "green projects" along the DME. The Board reserves the power to delegate the selection of green activities to the Chairman, DMEDL. The sanction will be based on demand raised by NHAH against the expenses incurred. This has been indicated in the Sec. 6.2 "Selection & Evaluation of Eligible Green Activities".
1.2 (a)	Process followed/ to be followed for determining how the project(s) and/or asset(s) fit within the eligible green projects categories as defined under Regulation 2 (1) (q) of NCS Regulations,	Please refer to Sec. A: Executive Summary and D(a) Use of Proceeds of Third-Party Reviewer Report	SEBI Green Debt Securities (GDS) notification no. SEBI/HO/DDHS/DDHS-RACPOD1/P/CIR/2023/023 dated 6 February 2023 propose to align classification of green projects defined under SEBI NCS Regulations 's clause 2 (1)(q). The above projects will qualify under Clause 2(1)(q) of SEBI NCS regulation's ⁸ categories (i) Biodiversity conservation , (ii) Renewable and Sustainable energy including wind, bioenergy, other sources of energy which use clean technology , (iii) climate change adaptation including

⁷ SEBI Issue and Listing of Non-Convertible Securities) Regulations, 2021 <https://www.sebi.gov.in/legal/regulations/sep-2024/securities-and-exchange-board-of-india-issue-and-listing-of-non-convertible-securities-regulations-2021-last-amended-on-september-18-2024-86834.html>. Please see Sec. 2 (1) (q). SEBI notification accessed on 20 October 2024.

⁸ SEBI Issue and Listing of Non-Convertible Securities) Regulations, 2021 <https://www.sebi.gov.in/legal/regulations/sep-2024/securities-and-exchange-board-of-india-issue-and-listing-of-non-convertible-securities-regulations-2021-last-amended-on-september-18-2024-86834.html>. Please see Sec. 2 (1) (q). SEBI notification accessed on 20 October 2024.

#	Clause	Reference in the Report	Response
			efforts to make infrastructure more resilient to impacts of climate change and information support systems such as climate observation and early warning systems, (iv) sustainable water management (v) and; Sustainable waste management including recycling, waste to energy, efficient disposal of wastage.
1.2 (b)	The criteria making the project(s) and/or asset(s) eligible for using the green debt securities proceeds	Please refer to Sec. A: Executive Summary and Annexure 2: Need and Benefit of the Projects	CareEdge Advisory has referred to (i) SEBI NCS Regulation dt. 9 Aug 2021, Clause 2(1)(q) while categorizing projects under SEBI guideline; (ii) ICMA Green Bond Principles taxonomy 2021 ; and (iii) Sovereign Green Bond Framework 2022 for checking eligibility of the proposed green activities. Please see response above. Please see response to question 1.1 and Table 1 on how the proposed green activities along the DME will qualify under the SEBU NCS, ICMA GBP and SGP.
1.2 (c)	Details of taxonomies, green standards or certifications both Indian and global, if any referenced and the alignment of projects with said taxonomies, related eligibility criteria, and exclusion criteria, if applicable.	Please refer to Sec. A: Executive Summary of the Report	CareEdge Advisory has referred to (i) SEBI NCS Regulation dt. 9 Aug 2021, Clause 2(1)(q) while categorizing projects under SEBI guideline and (ii) ICMA Green Bond Principles taxonomy 2021 (read along with June 2022 Appendix), and (iii) Sovereign Green Bond Framework 2022 for checking eligibility of the activities. Please see response above.
1.2 (d)	Details of the alignment of the objective of the issue with the India's Intended Nationally Determined Contributions in case of the proceeds raised through issuance of transition bonds	Please refer to Table 1 and Annexure 2: Need and Benefit of the selected green activities on India's NDCs	This is not a transition bond, however it could be observed from Table 1 and Annexure 2: Need and Benefits of the Projects that following activities contribute towards India's NDC: <ul style="list-style-type: none"> • Median lane plantation/avenue plantation/arboriculture • Street lights on renewable energy (solar) • Reduction in travel time and improved fuel efficiency due to reduced traffic congestion
1.3	Details of the system/procedures to be employed for tracking the deployment of the proceeds of the issue.	Please refer to Sec. D(c) Tracking and Deployment of Proceeds for further details.	DMEDL will open a dedicated bank account for credit of green bond proceeds and its utilization. The account will be monitored by an external auditor, to be appointed by DMEDL as per clause 2.1 of SEBI NCS Regulations

#	Clause	Reference in the Report	Response
			<p>The external auditor will certify: (i) parking of the fund raised through green bond issuance, and; (ii) monitoring deployment as per selected Use of Proceeds from time to time.</p> <p>The Finance Department of DMEDL will be responsible for: (i) monitoring the fund inflow and; (ii) provide relevant information to the external auditors.</p> <p>Any unutilized amount will be parked in the same bank account, and can't be utilized for any other purpose other than those listed in Table 1.</p>
1.4	Details of the project(s) and/or asset(s) or areas where the issuer, proposes to utilise the proceeds of the issue of green debt securities, including towards refinancing of existing green project(s) and/or asset(s), if any.	Please refer to D(a) Use of Proceeds and; Annexure 2: Need and Benefit of the Projects	<p>DMEDL will use the green bond proceed to reimburse the green activities financed by its parent, NHAI. The list of green projects along DME has been provided in Table 1.</p> <p>The authority to select new 'green' activities lies with DMEDL's Board.</p>
1.5	Details of an indicative estimate of distribution of proceeds raised through issuance of green debt security between financing and refinancing of project(s) and/ or asset(s); if applicable.	Please see response section.	As per DMEDL's Green Bond framework, 100% of the proceeds from green bond issuance will be reimbursed to NHAI, DMEDL's parent entity, against the expenses incurred towards financing selected green activities defined in Table 1 .
1.6	Details of the intended types of temporary placement of the unallocated and unutilised net proceeds from the issue of green debt securities	Please refer to Sec. D(c) Tracking the Deployment of Proceeds of SPO.	<p>As per DMEDL, the amount raised through the green bond proceeds will be used for reimbursing its parent organization NHAI against the expenses it has already incurred against designated green activities (identified in Table 1). Any unutilized amount will be parked in the same dedicated account and can't be utilized for any other purpose other than those listed in Table 1.</p> <p>The account will be monitored by an external auditor as per SEBI GDS regulations, and will be reported to the Green Bond investors on annual basis.</p>
1.7	Details related to the perceived social and environmental risks and proposed mitigation plan associated with the	Please refer to Sec. D(b) Project Evaluation and Selection	NHAI, DMEDL's parent organization has developed multiple layers environmental and social (E&S) risk mitigation programs, which includes:

#	Clause	Reference in the Report	Response
	project(s) proposed to be financed/ refinanced through the proceeds from the issue of green debt securities		<ul style="list-style-type: none"> (i) Project level legal compliance as per extant environmental and social legal requirements (ii) Design level procedures which conform with Indian Road Congress (IRC), Indian Standards (IS) and other NHAI norms (iii) Design supervision provided by NHAI and EPC/HAM contractors (iv) During the operational stage, NHAI teams will be guided by the clauses included in the Environmental Clearance (EC) / Consent to Operate (CTO) / Forest Clearance (FC) <p>The green activities associated with DME are guided by: (i) NHAI's tender specifications, (ii) IRC/IS standards of design, (iii) regulatory guidelines, (iv) supervised by both NHAI's technical staff and EPC / HAM contractor's engineering teams, and; (v) DMEDL's Green Bonds Framework.</p>
1.8	The issuer shall appoint an independent third-party reviewer/ certifier, for reviewing/certifying the processes including project evaluation and selection criteria, project categories eligible for financing by green debt securities, etc.	Please refer to D(e)External Review	DMEDL has appointed M/s Care Analytics and Advisory Services Pvt. Ltd. ("CareEdge Advisory") for providing its independent opinion on their Green Bond issuance process.

Annexure 2: Need and Benefits of the Projects

The Delhi–Mumbai Expressway is a 1,350 km long, 8-lane wide (expandable to 12-lane) under-construction (at present) access-controlled expressway connecting India's national capital New Delhi to its financial capital Mumbai. The entire 1,350 km long Delhi–Mumbai Expressway has been divided into 4 sections with a total of 52 construction packages/tenders, where the length of each package is between 8 km to 46 km.

Delhi–Mumbai Expressway connects the Sohna Elevated Corridor, Delhi to the Jawaharlal Nehru Port in Maharashtra via Dausa, Kota, Ratlam, Vadodara and Surat. It passes through the Union territory of Delhi (12 km) and the states of Haryana (129 km), Rajasthan (373 km), Madhya Pradesh (244 km), Gujarat (426 km) and Maharashtra (171 km). The main length of the expressway is from Sohna to Virar only i.e. 1,198 km. Additionally, it has two spurs: DND–Faridabad–KMP (59 km) and Virar–JNPT (92 km), which increases its length to 1,350 km. State-wise details is presented below in **Table 3**.

Table 3 - Section length and State-wise Packages

Section	Length (km)	Packages (#)	State-wise packages
DND –Faridabad–KMP	59	03	1 in Delhi and 2 in Haryana
Sohna–KMP–Vadodara	844	31	3 in Haryana, 13 in Rajasthan, 9 in Madhya Pradesh and 6 in Gujarat
Vadodara–Virar	354	13	10 in Gujarat and 3 in Maharashtra
Virar–JNPT	92	05	5 in Maharashtra
Total	1,350	52	06 States

The project is being executed in 52 packages⁹, out of which 31 are under Engineering, Procurement and Construction model or EPC projects (Sohna–Vadodara segment) while the remaining 21 are Hybrid Annuity Model or HAM projects. The HAM Model is a hybrid or mixture of EPC Model and BOT Model in which the Government of India will pay 40% of the project cost in tranches linked to milestones, while the balance 60% cost will be arranged by the contractors.

Proposed amenities along the DME is presented below in **Table 4**.





⁹ 4 packages were added later.








Table 4 – Proposed Amenities along DME

Facilities/ Benefits	Details
Wayside Amenities	The expressway will have Wayside Amenities at various locations having facilities like ATM, hotels, retail shops, food courts, charging stations for electric vehicles and fuel stations.
Trauma Centre	It will also be the first expressway in India to have helipads and fully equipped trauma centres.
Environment friendly design	It is being developed as an environment-friendly expressway with significant tree cover. Expressway will be lit using a mix of power supply from Thermal Power and Solar Energy.
Wildlife crossings	The eight-lane wide DME will have around five natural wildlife crossings, including: (a) Mukundara National Park, (b) Ranthambore National Park, and (c) Sariska Tiger Reserve, on different stretches with a collective length of around 2.5 km. This will include both animal underpass and animal overpass facility.
Increased accessibility	Better connectivity to cities like Jaipur, Kota, Chittorgarh, Indore, Ujjain, Bhopal, and Ahmedabad. It will have wayside amenities – resorts, restaurants, food courts, fuel stations, facilities for truckers, logistics parks, generating employment.
Electric Highway or e-Highway	As per the Union ministry, there is a plan to make a stretch of the Delhi-Mumbai expressway as an electric highway or e-highway. On this expressway, buses and trucks can run at a speed of 120 km per hour. The speed and lack of congestion on the expressway will lower the logistics expenses. It will also have four dedicated lanes for all-electric vehicles through the entire route of the expressway out of eight lanes. The 1.5-metre-high barrier will be built on both sides of the expressway road for security reasons, and the toll plaza will be set up inside slip.

The alignment of the project with the UN Sustainable Development Goals (SDG) is presented below in **Table 5**.

Table 5 – Linkage between DMEDL’s designated Use of Proceeds, SEBI NCS, ICMA Green Bond and UN SDG Category

#	Green activities	Environment and/or social impacts	SEBI NCS Regulation, 2021	ICMA Green Bond Category	Connected UN SDG
1.	Animal underpasses / animal overpasses	Construction of animal underpass and overpass at 5 selected location along the length of DME, with a cumulative length of 2.5 km. This will reduce chances of man-animal conflicts, and help connectivity without disrupting wildlife.	SEBI Green Debt Security (GDS) Category no. [2.(q)(vii)]	Terrestrial biodiversity conservation	
2.	Median Lane Plantation / Avenue plantation / Arboriculture	Increases tree cover along the road stretch. This will help in air pollution reduction and GHG emission reduction.	SEBI GDS Category no. [2.(q)(vii)]	Terrestrial biodiversity conservation	
3.	Street lights on renewable energy (solar)	Deployment of street lights on solar will save energy, reduce OPEX, and reduce project level GHG emissions.	SEBI GDS Cat. [2.(q)(i)]	Renewable energy	
4.	Natural stormwater drainage (including Lined and Unlined Drains)	Will help in groundwater recharge and greenery development.	SEBI GDS Category no. [2.(q)(iii)]	Environmentally sustainable management of living natural	

#	Green activities	Environment and/or social impacts	SEBI NCS Regulation, 2021	ICMA Green Bond Category	Connected UN SDG
				resources and land use	
5.	Amrit Sarovar (Ponds) Construction	Will help in improving local groundwater levels, and local people's lives and livelihood.	SEBI GDS Category no. [2.(q)(x)]	Sustainable water and waste water management	
6.	(c) Waste Recycling – Fly Ash Utilization	Will help in utilization of fly ash from Thermal Power Plants (TPP), which will otherwise pollute environment.	SEBI GDS Category no. [2.(q)(v)]	Pollution prevention and control projects	
	(d) Waste Recycling – Construction and Demolition waste (incl. inert / alternate material used)	Will reduce the utilization of natural aggregates, thereby reducing the chances of secondary environmental damages like deforestation / landslides.	SEBI GDS Category no. [2.(q)(v)]	Pollution prevention and control projects	 
7.	Rainwater Harvesting	Will help in groundwater recharge and greenery development.	SEBI Green Debt Security (GDS) Category no. [2.(q)(x)]	Sustainable water and waste water management	 

Annexure 3: Green, Social and Sustainability Linked Bonds (GSSL) External Review Form

Section 1. Basic Information

Issuer name:	Delhi Mumbai
Bond ISIN	** ISIN No. to be inserted once available**
Third-Party Reviewer's name	CARE Analytics and Advisory Pvt. Ltd. (CareEdge Advisory)
Completion date of this form	12 November 2024
Date of the review: [where appropriate, specify if it is an update and add reference to earlier relevant review]:	N/A

Section 2. Overview

SCOPE OF REVIEW

The review:

☒ assessed the 4 core components of the Principles (complete review) and confirmed the alignment with the GBP/SBP/SBG (delete where appropriate).

☐ assessed only some of them (partial review) and confirmed the alignment with the GBP/SBP/SBG (delete where appropriate); please indicate which ones:

- | | |
|---|---|
| <input type="checkbox"/> Use of Proceeds | <input type="checkbox"/> Process for Project Evaluation and Selection |
| <input type="checkbox"/> Management of Proceeds | <input type="checkbox"/> Reporting |

☒ assessed the alignment with other regulations or standards (CBI, EU GBS, ASEAN Green Bond Standard, ISO 14030, etc.); please indicate which ones:

ROLE(S) OF INDEPENDENT REVIEW PROVIDER

- | | |
|--|---|
| <input checked="" type="checkbox"/> Third Party Review | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Scoring/Rating |
| <input type="checkbox"/> Other (please specify): | |

Does the review include a sustainability quality score¹⁰?

- | | |
|---|--|
| <input type="checkbox"/> Of the issuer | <input type="checkbox"/> Of the project |
| <input type="checkbox"/> Of the framework | <input type="checkbox"/> Other (please specify): |

¹⁰ The external review may indicate the provider's opinion of the overall sustainability quality of a bond or bond framework and assess whether it has a meaningful impact on advancing contribution to long-term sustainable development.

- ☒ No scoring

ASSESSMENT OF THE PROJECT(S)

Does the review include:

- ☒ The environmental and/or social features of the type of project(s) intended for the Use of Proceeds?
- ☒ The environmental and/or social benefits and impact targeted by the eligible Green and/or Social Project(s) financed by the Green, Social or Sustainability Bond?
- ☒ The potentially material environmental and/or social risks associated with the project(s) (where relevant)?

ISSUER'S OVERARCHING OBJECTIVES

Does the review include:

- ☐ An assessment of the issuer's overarching sustainability objectives and strategy, and the policies and/or processes towards their delivery?
- ☒ An identification and assessment of environmental, social and governance related risks of adverse impact through the Issuer's [actions] and explanations on how they are managed and mitigated by the issuer?
- ☒ A reference to the issuer's relevant regulations, standards, or frameworks for sustainability-related disclosure and reporting?

CLIMATE TRANSITION STRATEGY¹¹

Does the review assess:

- ☐ The issuer's climate transition strategy & governance?
- ☒ The alignment of both the long-term and short/medium-term targets with the relevant regional, sector, or international climate scenario?
- ☐ The credibility of the issuer's climate transition strategy to reach its targets?
- ☐ The level/type of independent governance and oversight of the issuer's climate transition strategy (e.g. by independent members of the board, dedicated board sub-committees with relevant expertise, or via the submission of an issuer's climate transition strategy to shareholders' approval).
- ☐ If appropriate, the materiality of the planned transition trajectory in the context of the issuers overall business (including the relevant historical datapoints)?
- ☐ The alignment of the issuer's proposed strategy and targets with appropriate science-based targets and transition pathways¹² that are deemed necessary to limit climate change to targeted levels?
- ☐ The comprehensiveness of the issuer's disclosure to help investors assess its performance holistically¹³?

¹¹ Where issuers wish to finance projects towards implementing a net zero emissions strategy aligned with the goals of the Paris Agreement, guidance on issuer level disclosures and climate transition strategies may be sought from the [Climate Transition Finance Handbook](#).

¹² GHG emissions reduction targets that are in line with the scale of reductions required to keep the average global temperature increase to ideally 1.5°C, or at the very least to well below 2°C above pre-industrial temperatures. Science Based Targets Initiative (SBTi) is a branded verification body for science-based targets and SBTi verification is one way for issuers to validate the alignment of their emission reduction trajectories with science-based reference trajectories. In addition, ICMA has published a [Methodologies Registry](#) which includes a list of tools to specifically help issuers, investors, or financial intermediaries validate their emission reduction trajectories.

¹³ Including information such as the respective contribution (e.g. %) of the different measures to the overall reduction, the total expenses associated with the plan, or the issuer's climate policy engagement.

Opinion:

It could be observed from Table 1 and Annexure 2: Need and Benefits of the Projects that following activities contribute towards India's NDC:

- Median lane plantation/avenue plantation/arboriculture
- Streetlights on renewable energy (solar)
- Reduction in travel time
- Improved fuel efficiency due to reduced traffic congestion

Section 3. Detailed Review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS**Does the review assess:**

- ☒ the environmental/social benefits of the project(s)?
- ☐ whether those benefits are quantifiable and meaningful?
- ☐ for social projects, whether the target population is properly identified?

Does the review assess if the issuer provides clear information on:

- ☒ the estimated proceeds allocation per project category (in case of multiple projects)?
- ☐ the estimated share of financing vs. re-financing (and the related lookback period)?

Overall comment on this section:

The proceeds from the green bond issue will be exclusively used in the selected green projects depicted in Table 1.

The use of the proceed will be used to reimburse DMEDL's parent entity, NHAI, against financing designated green financing activities depicted in Table 1.

2. PROCESS FOR PROJECT EVALUATION AND SELECTION**Does the review assess:**

- ☒ whether the eligibility of the project(s) is aligned with official or market-based taxonomies or recognised international standards? Please specify which ones¹⁴.
- ☒ whether the eligible projects are aligned with the overall sustainability strategy of the issuer and/or if the eligible projects are aligned with material ESG-related objectives in the issuer's industry?
- ☐ the process and governance to set the eligibility criteria including, if applicable, exclusion criteria?
- ☒ the processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s)?
- ☒ any process in place to identify mitigants to known material risks of negative social and/or environmental impacts from the relevant project(s)?

¹⁴ The EU Taxonomy, CBI Taxonomy, UK Taxonomy, China catalogue, etc.

Overall comment on this section:

Please refer to Table 1 for how the selected green activities align with Security and Exchange Board of India's (SEBI) NCS Regulations Clause 2(1)(q), International Capital Market Association's (ICMA) Green Bond Principles June 2021, and Govt. of India's Framework for Sovereign Green Bonds 2022.

However, as (a) DME project is partially constructed, (b) DMEDL's parent entity, NHAI being a Govt. of India organization, it does not subscribe to any exclusion lists (like IFC Exclusion List).

*Please refer to **Annexure 2: Need and Benefits of the Projects** for proposed environmental and social risk mitigants measures.*

3. MANAGEMENT OF PROCEEDS**Does the review assess:**

- ☒ the issuer's policy for segregating or tracking the proceeds in an appropriate manner?
- ☐ the intended types of temporary investment instruments for unallocated proceeds?
- ☒ Whether an external auditor will verify the internal tracking of the proceeds and the allocation of the funds?

Overall comment on this section:

Please refer to Sec. D(c) Tracking and deployment Proceeds. This section elaborates the process of management of proceeds.

4. REPORTING**Does the review assess:**

- ☐ the expected type of allocation and impact reporting (bond-by-bond or on a portfolio basis)?
- ☒ the frequency and the means of disclosure?
- ☐ the disclosure of the methodology of the expected or achieved impact of the financed project(s)?

Overall comment on this section:

Please refer to Sec. D(d) Reporting. This section defines how DMEDL will disclose and report the proceeds of the Green Bonds.

Section 4. Additional Information

Useful links (e.g. to the external review provider's methodology or credentials, to the full review, to issuer's documentation, etc.). Please visit <https://www.dmedl.in/index.html> for DMEDL's website.

Analysis of the contribution of the project(s) to the UN Sustainable Development Goals:

Please refer to Table 5.

Disclaimer of Third Party Reviewer:

The following section serves as a legal disclaimer for CareEdge Advisory, division of CARE Analytics and Advisory Private Limited (previously known as CARE Risk Solutions Private Limited); (hereinafter referred to as "the Third Party Opinion") in connection with the issuance of a Third-Party Reviewer for Green Bond Issuance for DME Development Limited ("DMEDL" / "Company" / "Issuer").

RELIANCE ON INFORMATION:

The Third-Party Reviewer hereby declares, that, it has relied upon the information provided by the DMEDL on "as is" basis for the purpose of forming its opinion and are based on various assumptions, being based upon factors and events subject to uncertainty. The Third-Party Reviewer does not independently verify the accuracy or completeness of the information submitted by the DMEDL.

NO ASSUMPTION OF RESPONSIBILITY:

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INDEMNIFICATION:

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The Third-Party Review provided by the Third-Party Reviewer is not to be construed as an assessment of (i) technical soundness of the proposed project(s), (ii) financial performance/ solvency, and/or; (iii) creditworthiness of the DMEDL. It is solely an opinion on the Environmental, Social, and/or Governance assessment related to the DMEDL Green Bond in accordance with the SEBI NCS Regulation, ICMA Green Bond Principles and Framework for Sovereign Green Bond Principles.

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About:

CareEdge is a knowledge-based analytical group that aims to provide superior insights based on technology, data analytics and detailed research. CARE Ratings Ltd, the parent company in the group, is one of the leading credit rating agencies in India. Established in 1993, it has a credible track record of rating companies across multiple sectors and has played a pivotal role in developing the corporate debt market in India.

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