# Request for Proposal for Consultancy Services for Impact Study of NETC Programme and other Management Consultancy Services for IHMCL

RFP Reference No.: IHMCL/Consultant/2024/01 published on dated 24.04.2024 The following Corrigendum/Addendum is issued:

SI	Section	Original RFP Clause	•	RFP Clau	use to be read as	
No						
1.	RFP Clause 4.3, Eligibility/Pre- Qualification Criteria, S.No. 6) Relevant Experience	'Similar nature' for this criterion shall mean consulting assignments in the field of Impact Studies of Government Policy(ies) / Public Policy / e- Governance / IT System Audit of large or medium scale projects in the fields of ICT or Intelligent Transport system/Smart Mobility/Transit payments.		ignments in the s of Government Policy / e- ystem Audit of e projects in the ligent Transport consulting assignments in the field of Ir Studies of Government Policy(ies) / Public F / IT System Audit of large or medium projects in the fields of ICT or Intelligent Trans Governance.		in the field of Impact Policy(ies) / Public Policy large or medium scale CT or Intelligent Transport
2.	RFP Clause 7.3	Scope of Work			Scope of Work p rrigendum.	rovided at Annexure -1 of
3.	RFP Clause 7.5	Deliverables & Timeli	nes		Deliverables & e -2 of this Corrig	Timelines provided at endum.
4.	RFP Clause 7.6	Payment Milestones			Payment Milesto Corrigendum.	nes provided at Annexure
5.	AppendixII:FinancialProposal,Clause 9.2.1, Clause9.2.2.	Financial Proposal	Updated Financial Proposal provided at Annexure - 4 of this Corrigendum.			
6.	RFP Clause 4.3. Eligibility/Pre- Qualification Criteria. S.NO. 5), Manpower strength,	<ul> <li>Supporting Documents required</li> <li>Notarized affidavit confirming number of number of employees.</li> </ul>		<ul> <li>Supporting Documents required</li> <li>Notarized affidavit confirming number of number of employees as per Format provided in Annexure - 5 of this Corrigendum</li> </ul>		
7.	RFP Clause 5.2.4. Resource Requirement	Resource Requirement		Updated		quirement provided at endum
8.	RFP Clause 5.2.3, S. No 1.2. Relevant Experience of the Firm	<ul> <li>More than 12 years of experience – 10 marks</li> <li>More than 12 years of experience – 8 marks</li> </ul>		r   ● 1	narks	rs of experience – <b>10</b> s <b>up to 15 years</b> of <b>rks</b>
9.	Section 2, Schedule of the Tender (Key dates)					
	,	SI. EVENT(S) No.	DATE (Unless otherwise notified separately)	SI. No.	EVENT(S)	DATE (Unless otherwise notified separately)
		4. Bid Due Date	15.05.2024 (Up to 15:00 Hrs IST)	4.	Bid Due Date	21.05.2024 (Up to 15:00 Hrs IST)
		5. Opening of Technical Bids	16.05.2024 (16:00 Hrs IST)	5.	Opening of Technical Bids	22.05.2024 (16:00 Hrs IST)

## Annexure -1 - Updated Scope of Work

The detailed scope of work is described in the sub-sections as below -

#### 1. Workstream #1: Impact Assessment of NETC Programme

The workstream shall be largely include the following -

- A. Quantitative and qualitative assessment of the NETC Programme The previous study report for Impact Assessment of NETC Programme carried out in year 2021 is provided at **Appendix III** of the RFP.
- B. Suggestions on decongesting top 10 congested fee plazas
- C. Impact of ICD 2.5 over ICD 2.4 for transaction time and scope of any further improvements

#### A. Quantitative Impact Assessment of NETC Program

- Carry out a study to quantify the tangible socio-economic benefits of NETC program.
   The quantification of tangible benefits should be backed up by reasonable assumptions.
- ii. Perform comparative data analysis vis-à-vis pre and post ETC implementation The outcome of analysis shall cover the impact on the IHMCL, FASTag users, etc., impact on the Government (national/state), Impact on other Stakeholders, such as concessionaire, toll operating agencies, etc. and impact on environment.
- iii. Derive various quantifying factors for the analysis based on the obtained information / data.
- iv. Carrying out on ground traffic surveys at:
  - a) Minimum 40 toll plazas spread across India as representative sample.
  - b) On minimum 20 toll plazas on congested corridors like Delhi Mumbai (NH-48), Asansol - Kolkata (GQ) in particular.
- v. The quantitative analysis shall include but not limited to following wrt 2021 study report provided at Appendix III:
  - a) Savings in monetary terms with respect to fuel, manhours
  - b) Average waiting time at toll plaza for scenario (iv).a) and (iv).b) separately.
  - c) Average Peak hour waiting time for scenario (iv).a) and (iv).b) separately.
  - d) Reduction in carbon emissions at toll plazas
  - e) Increase in Toll Revenue,
  - f) Average speed of commercial vehicles (3 axle and more) after implementation of Electronic Toll Collection at Toll Plazas.
  - g) Comparative data analysis.
- vi. Remedial measures to further improve the above parameter specially waiting time.

#### B. Qualitative impact assessment of NETC program

- a. Carry out a rapid survey of key stakeholders to understand their satisfaction with ETC. The stakeholders to include the following:
  - i. passenger vehicle users
  - ii. freight transporters (truck operators etc.)

iii. toll operation stakeholders (operators, operating agencies etc.)

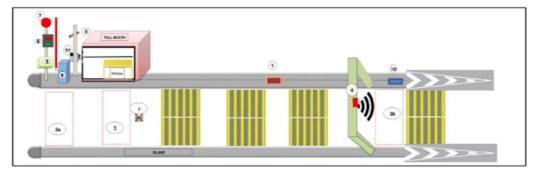
b. Prepare short questionnaires for rapid survey of different stakeholders, identify the survey channel, roll-out the survey and analyze the findings to provide insights on level of satisfaction across different aspects of the service.

#### C. Suggestions on decongesting top 10 congested fee plazas

- i. Identification and categorization of key issues for delay/congestion at top 10 congested fee plazas.
- ii. Suggest key measures to reduce waiting time at 10 above toll plazas. Selection of Fee Plazas shall be done in consultation with IHMCL.
- D. Impact of implementation of ICD 2.5 (API based) over ICD 2.4 for transaction time.

## 2. <u>Workstream #2: Improvement in FASTag transaction processing by implementation of Swift</u> <u>Flow Lane Concept</u>

Recently, IHMCL has introduced Swift Flow Lane concept at high transaction fee plazas. Swift flow lane involves default up position of boom barrier by repositioning of RFID reader and other related activities to the current Electronic Toll Collection (ETC) system setup as per the indicative layout outlined in below:



#### List of equipment's

S.No.	Equipment	Symbol	Location
1	Utility/Duct Chamber (size as per requirement)		Island
2	Overhead Lane Signal	<b>**</b>	Canopy
3	Loop	[]	Lane
3a	Exit Loop	()	Lane
3b	Entry loop (Optional, as per requirement of Service Provider)	0111110	Lane
4	ETC Antenna/ RFID Reader		Pole
5	User fare Display		Toll Booth/Island
6	Traffic Light & Pole	<b>2</b>	Toll Booth/Island
7	Violation Alarm Light	•	Island
8	Incident Camera		Island
9	Automatic Lane Exit Barrier		Island
10	Vehicle Separator		Island
11	License Plate Image Capture Camera		Island
12	Chevron marking		Road
13	Bar Marking		Road

The primary objective of implementing the swift flow lane is to enhance the traffic throughput within that specific lane, for active FASTag vehicles, presently validated at Pay axis, and to expedite the validation process.

To achieve this, the automatic barrier gate in the swift flow lane shall remain open in normal condition to allow continuous movement of vehicles affixed with active FASTag, eliminating the need to stop at the toll booth for FASTag validation.

A crucial function of this system is the automatic barrier gate, which will promptly lower whenever a vehicle with an inactive/invalid FASTag or without any FASTag attempts to enter the swift flow lane. This mechanism ensures that only vehicles with active FASTag can freely pass through without any interruption, maintaining the swift flow.

To manage the queue of vehicles and ensure seamless operations, the Vehicle Separator plays a vital role. Vehicle Separator is responsible for detecting direction of vehicle (Forward/reverse), separating, and identifying vehicles within the lane. This allows for efficient queue management and helps in promptly lowering the barrier gate for vehicles without active FASTag, preventing any disruptions to the continuous flow of traffic in the swift flow lane. The combination of an open barrier for active FASTag vehicles and a closed barrier for inactive or non-FASTag vehicles, along with the assistance of the Vehicle Separator, contributes to the overall objective of enhancing traffic throughput in the designated lane.

IHMCL has implemented Swift flow lane concept at 11 number of fee plazas which includes 24 lanes. Consultant shall carry out a study to quantify the tangible benefits of Swift flow lane. The quantification of tangible benefits should be backed up by reasonable assumptions.

#### 3. Workstream #3: Impact due to exemption of Private Light Motor Vehicles (Car/Jeep/Van)

- i. Quantitative Analysis to show impact of exemption of Private Light Motor Vehicles (Car/Jeep/Van)\_from paying toll at:
  - a) All NH toll plazas
  - b) Public funded NH toll plazas
- ii. Quantitative Analysis to show impact of exemption of user fee on:
  - a) All toll plazas on 2 Lane paved shoulder National Highways.
  - b) All public funded toll plazas on 2 Lane paved shoulder Highways.
- iii. The analysis at S.No. (i) and (ii) above should include impact on:
  - a) Toll revenue
  - b) Emission and carbon credits
  - c) Any other important attributes

# Annexure 2: Updated Deliverables & Timelines

Delive	Timelines for submission	
Report on Workstream #1 - Impact Assessment of NETC Programme	Submission & Presentation on of 1 <sup>st</sup> Draft Report	T + 5 months
	Submission of Final Report & Presentation	Within 1 month of presentation of 1 <sup>st</sup> Draft Report
Workstream #2: Improvement in FASTag transaction processing by implementation of Swift Flow Lane	Submission & Presentation on of 1 <sup>st</sup> Draft Report	T + 4 months
Concept	Submission of Final Report & Presentation	Within 15 days of presentation of 1 <sup>st</sup> Draft Report
Workstream #3: Impact due to exemption of Private Light Motor Vehicles (Car/Jeep/Van)	Submission & Presentation on of 1 <sup>st</sup> Draft Report	T + 3 months
	Submission of Final Report & Presentation	Within 15 days of presentation of 1 <sup>st</sup> Draft Report

The Consultant shall submit the following deliverables as per timelines provided as below:

T is the date of Contract Signing.

# Annexure 3: Updated Payment Milestones

The Payment Milestones shall be as below:

Deliverable	Amount payable (in Rs.)	Payment Terms
Report on Workstream #1 - Impact Assessment of NETC Programme	60% of (I) in Form 2B	a) 50% of payable amount for the deliverable - On Submission of Final Report
		<ul> <li>b) Remaining 50% of payable amount for the deliverable - Upon approval of the Final Report</li> </ul>
Report on Workstream #2 - Improvement in FASTag transaction processing by implementation of Swift Flow Lane Concept	20% of (I) in Form 2B	<ul> <li>a) 50% of payable amount for the deliverable - On Submission of Final Report</li> <li>b) Remaining 50% of payable amount for the deliverable - Upon approval of the</li> </ul>
Report on Workstream #3: Impact due to exemption of Private Light Motor Vehicles (Car/Jeep/Van)	20% of (I) in Form 2B	<ul> <li>Final Report</li> <li>a) 50% of payable amount for the deliverable - On Submission of Final Report</li> <li>b) Remaining 50% of payable amount for the deliverable - Upon approval of the Final Report</li> </ul>

# Annexure 4: Updated Financial Proposal

The bidders are expected to respond to the RFP using the forms given in this section for Financial Proposal.

Form 1: Covering Letter - Deleted

Form 2: Financial Bid

## 9.1. Form 1: Covering Letter - (Deleted)

## 9.2. Financial/Commercial Bid Format

#### 9.2.1 - Form 2A: Summary of Costs

S. No.	Particulars	Amount (in Rs.)	
	Total Amount of Financial Proposal - (A) (refer Form 2B)		
В	Out of Pocket Expenses - (B) (refer Form 2D)		
C	Miscellaneous Expenses - (C) (refer Form 2E)		
D	GST as applicable (Applicable rate * (A+B+C))		
	Total (A+B+C), excluding GST		

## 9.2.2. Form 2B: Breakdown of Price

S. No.	Particulars	Qty	Unit Rate (in Rs.)	Amount (in Rs.)
1	Deliverable Task 1, 2 and 3- (I)	NA	NA	
	Total (Should be equal to <b>"A" in Form 2 A)</b>			

#### 9.2.3 Form 2C: Breakdown of Remuneration (man month rate)

S. No.	Name of Resource	Position	Deliverables Involved	month	Total Man- month required / Total Remunerat ion	Amount (in Rs.)
1	<bidder all<br="" put="" to="">the resources as mentioned in section 5.2.4&gt;</bidder>					
2						
3						
4						
5						
	Total (Should be equal to (I) SI # 1 in Form 2B)					

## 9.2.4. Form 2D: Estimate of Out of Pocket Expenses

S. No.	Description	Unit	Quantity	Unit Price (in Rs.)	Amount (in Rs.)
1					
2					
3					
	Total (Should be equal to "B"	in Form 2 A)			

## 9.2.5. Form 2E: MiscellaneousExpenses

S. No.	Description	Unit	Quantity	Unit Price (in Rs.)	Amount (in Rs.)
1	< Any others, please specify>				
2					
3					
	Total (Should be equal to "C" in				

# Annexure -5 - Notarized affidavit confirming number of number of employees

(in the letter head of the Bidder)

Date: .....

To,

Chief Operating Officer,

Indian Highways Management Company Limited

RFP Ref: <.....>

This is to confirm that <Name of the Bidder> has an average of <<u>Number of Employees</u>> in its pay-roll in the last three financial years i.e. FY 2020-21, 2021-22 and 2022-23.

Name of Authorized Signatory:.....

(Signature of Authorized Signatory):.....

# Annexure -6 - Updated Resource Requirement

SI #	Resources required	Minimum Total Years of Work Experience	No. of Resources
1.	Team Leader	10 years	1
2.	Subject Matter Expert (Impact Assessment)	10 years	1
3.	Traffic Expert	10 years	1

#### a) Key Resource Requirement - (CVs to be submitted for evaluation)

#### b) Minimum requisite Qualification & Experience -

S.No.	Key personnel	Requisite Minimum Qualification and Experience
1.	Team Leader	<ul> <li>Graduate in Engineering and MBA from a reputed and recognized university or institution.</li> <li>Minimum 10 years of professional experience and with minimum 07 years of overall experience in managing infrastructure programs/ schemes with Large Scale Firms /PSUs /Government Agencies.</li> <li>Should have experience in managing various aspects of highway development processes including pre-construction, construction and operation and maintenance phases</li> </ul>
2.	Subject Matter Specialist (Impact Assessment)	<ul> <li>Graduate in Engineering/ Economics/ Statistics and MBA from a reputed and recognized university or institution.</li> <li>Should have 10 years of experience in the fields of advanced data analysis and statistical data modelling etc. and at least 5 years of consultancy experience in carrying out Socio-Economic benefits of large-scale ICT/E-Governance/digital transformation projects with Government/PSUs</li> <li>Should have carried out at least 2 impact assessment project</li> </ul>
		of large-scale Government programme in India or abroad.
3.	Traffic Expert	<ul> <li>Graduate / Postgraduate in Civil engineering, Transportation engineering, Urban planning.</li> <li>Should have 10 years of experience in Transportation sector and at least 5 years of consultancy experience in traffic impact assessments, traffic flow analysis, and transportation modeling of large-scale ICT/E- Governance/digital transformation projects with Government/PSUs</li> </ul>

c) Other Resource Requirement (full time) - Consultant shall deploy adequate number of resources with qualifications and skills commensurate to the job requirement.