Monetization of Public Funded NH Projects through Toll Operate Transfer (TOT) Model
Investor Presentation
September 2018
Agenda

Section 1  Importance of Road Sector in India
Section 2  National Highways Authority of India
Section 3  Transitioning towards the next phase
Section 4  Asset Recycling through Toll Operate Transfer (TOT) mode
Section 5  The TOT Bundle II
Importance of Road Sector in India
Transport Sector in India

Indian Roads Sector

- 2nd largest Road Network in the world with 5.23 million kilometers
- National Highways comprise 1,22,000 km of the road network, carry 40% of the traffic

Transport sector is a significant contributor to the Indian GDP, and 45.71% of its contribution is through Road Sector

- It is evident that its development is the mainstay focus of the Government

GDP Contribution of transport sub-sectors

- Railways: 11.43%
- Road Transport: 45.71%
- Water Transport: 11.43%
- Air Transport: 28.57%
- Services Incidental to transport: 0%
- Others: 0%

Transport sector is a significant contributor to the Indian GDP, and 45.71% of its contribution is through Road Sector.
The Roads Sector has witnessed **exponential growth** in terms of government expenditure compared to other infrastructure sectors. It has evidenced a **4x increase** in the spending by the Government in 4 years, reaffirms their **commitment to its development**.
Growth of Electronic Toll Collection in India

Online

- My FASTag mobile App
- NHAI Website
- Banks Website

Offline

- Common Services Centres across India
- 1300 RTO across India
- 200 toll Plaza Across India

Legislation


Awareness

- Social Media Marketing
- FM, Bill Boards, New Paper Ad

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**Total FASTags issued** | **Average Daily ETC transactions** | **ETC penetration**
--- | --- | ---
2,065,809 | USD 0.2 billion | 22.4%

<table>
<thead>
<tr>
<th>Dec 2016</th>
<th>Dec 2017</th>
<th>Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic Tags (FASTags) affixed on vehicles</td>
<td>0.1 million</td>
<td>1 million</td>
</tr>
<tr>
<td>No. of transactions (monthly)</td>
<td>~ 3 million</td>
<td>~ 12 million</td>
</tr>
<tr>
<td>Amount of transactions (monthly)</td>
<td>USD 0.13 billion</td>
<td>USD 0.5 billion</td>
</tr>
</tbody>
</table>
National Highways Authority of India – an Autonomous body under the Ministry of Road Transport and Highways

1988

Establishment under the NHAI Act

1988

Magnitude

Implementing Agency for world’s largest road development programs (Bharatmala Pariyojana & National Highways Development Program (NHDP))

Credentials/Ratings

Domestic: AAA by CRISIL, ICRA, CARE & India Rating

International: At par with Sovereign (As rated by S&P and Moody’s)

2018

Expenditure on National Highway development more than

INR 85,000 crores (USD 13.07 billion)

in FY 2017-18
NHAI’s current growth and future plans

The funding for the projects to be executed in future has already been closed by NHAI through budgetary support, market borrowing and private sector investments.

NHAI is executing three marquee programs investing $100 billion in infrastructure development between FY 2017 – FY 2023 for the Bharatmala initiative.

Physical progress of projects

CAGR for length constructed: 16.69%
CAGR for length awarded: 27.45%

34,800 km to be constructed
Transitioning to next phase
Asset Recycling in Indian Context

Asset Recycling in this context refers to leveraging of existing infrastructure assets that have been created in the past, and utilizing the proceeds so created, to fund new infrastructure creation.

❖ The advantages of the model include:

✓ Utilization of funds for priority development to serve social service and economic needs
✓ Low Concessionaire risk
✓ Long-term investment opportunity

Roads sector in India is ready for Asset Recycling
Currently there are four primary procurement models being followed in the Indian Roads Sector.

1. **Engineering Procurement Construction (EPC)**
   
2. **Built Operate Transfer (Toll)**
   
3. **Built Operate Transfer (Annuity)**
   
4. **Hybrid Annuity Mode (HAM)**

### Government Participation in Procurement Modes

<table>
<thead>
<tr>
<th>Procurement Model</th>
<th>Government Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Procurement Construction (EPC)</td>
<td>100% during construction</td>
</tr>
<tr>
<td>Built Operate Transfer (Toll)</td>
<td>Upto 40%</td>
</tr>
<tr>
<td>Built Operate Transfer (Annuity)</td>
<td>100% during operation</td>
</tr>
</tbody>
</table>
| Hybrid Annuity Mode (HAM)                     | 40% during construction  
                                            | 60% during operation     |
Delivering value in the operational phase

- Substantial road assets in operational stage and **sector ready for monetization of tolled assets**
- **Shift in investor profile** from traditional road developer to specialized firms such as **O&M agencies, tolling agencies and financial investors** looking at stable returns over a long horizon

**Asset Monetization through Toll, Operate and Transfer (TOT) mode**

- 48% of 9,538 KM
- 52% of 10,532 KM

**Secondary Market Transactions**
Some key international investors

CUBE HIGHWAYS
CIDB MALAYSIA
ISOLUX CORCÁN
IS SQUARED CAPITAL
Allianz
GLOBAL INFRASTRUCTURE PARTNERS
Brookfield
Ivanhoé Cambridge
Atlantia
abertis
Landmark secondary deals

**Brookfield**

- **Acquirer:** Brookfield Asset Management Inc.
- **Seller:** BSCPL Infrastructure Ltd; KMC Constructions Ltd.
- **Acquirer:** Cube Highways and Infrastructure Pte. Ltd.
- **Seller:** IL&FS Transportation Network Ltd.
- **Acquirer:** Abertis Infraestructuras SA
- **Seller:** Macquarie Group Ltd

**Andhra Pradesh Expressways Limited**

**Rayalaseema Expressway Private Limited; Simhapuri Expressway Private Limited**

**Farukhnagar-Jadcherla highway; Trichy Tollways project**
Alternate investment opportunities

**Infrastructure Investment Trust (InvITs)/REITs** are mutual fund like institutions that enable investments in infrastructure from a multitude of small individual investors.

- **2015** Development of InvIT Regulations
- **2017** Launch of first private sector InvIT (IRB)
- **2018** Launch of L&T IDPL’s InvIT

**Upcoming Infrastructure Investment Trusts**

- GMR
- IL&FS
- MEP Infrastructure Developers Ltd.
- Reliance Infrastructure
- Oriental
Asset Recycling through Toll Operate Transfer (TOT) mode
NHAI’s Asset Recycling Programme

Asset Recycling of operational projects through Toll, Operate, and Transfer (TOT) mode

Phase-1 of TOT Programme
Around 75 projects in 7 bundles selected initially for Asset Recycling

TOT Program so far...
- TOT Bundle I successfully awarded in 2018 for 1.5 times NHAI’s assessed value
- TOT Bundle II comprising 12 toll plazas across 8 project stretches aggregating project length of 586.55 km is being offered for bidding

TOT programme for Public Funded assets - Phase-1:
- Bundles to be bid out in a phased manner over the next 2-3 years.
- Average Bundle size ~ $1 bn, average length ~ 500 km
Response to the TOT Bundle I

**Authority’s Estimate**: Rs. 6,258 crores ($1 billion approx.)

- **Huge interest shown by investors**
- **More than 2000 queries received by more than 40 bidders**

<table>
<thead>
<tr>
<th>Bid Received</th>
<th>Rs. 9681 crores ($1.50 billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macquarie - Ashoka</td>
<td></td>
</tr>
<tr>
<td>IRB Infrastructure</td>
<td>Rs. 6930 crores ($1.06 billion)</td>
</tr>
<tr>
<td>Brookfield Asset Management</td>
<td>Rs. 7511 crores ($1.15 billion)</td>
</tr>
<tr>
<td>ROADIS – NIIF Consortium</td>
<td>Rs. 6611 crores ($1.01 billion)</td>
</tr>
</tbody>
</table>

- **Gujarat**: 3 Projects
- **Andhra Pradesh**: 6 Projects

<table>
<thead>
<tr>
<th>Total Bundle length (km)</th>
<th>681</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Toll Plazas</td>
<td>10</td>
</tr>
</tbody>
</table>
Response to the TOT Bundle I

TOT Bundle I has resulted in Total Cash Flow of more than Rs. 10,500 crores ($1.61 billion) into the Indian Roads sector.
TOT model overview

Upfront payment of lump-sum amount

Long term Toll Collection rights backed by a sound policy framework

• O&M obligations with the Concessionaire.

• Capacity Augmentation by the Authority, if required

Appointment through competitive bids
The Concession
- The Concession Period of **30 years**
- **Upto 49% divestment** is allowed **till two years** of the Concession Period
- **Upto 100% Change in Ownership** allowed after two years

Development and Operations
- The investor would be **de-risked from undertaking any construction**
- **Capacity Augmentation** conducted by **the Authority** at its own cost, if required

Financial Covenants
- User Fee collection shall be governed by **pre-determined “Fee Rules”**
- Traffic sampling shall be done at the **10th and the 20th year** to assess **toll variation**

Termination
- Termination Payments based on **Unexpired Cash Flows**

Other Provisions
- Well defined and mature **Dispute Resolution Procedure**
## TOT Bundle II – Details of projects

<table>
<thead>
<tr>
<th>Stretches</th>
<th>NH</th>
<th>State</th>
<th>Number of Toll Plazas</th>
<th>Length (Km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chittorgarh - Kota &amp; Chittorgarh Bypass</td>
<td>27</td>
<td>Rajasthan</td>
<td>3</td>
<td>160.50</td>
</tr>
<tr>
<td>Swaroopganj - Pindwara &amp; Pindwara - Udaipur</td>
<td>27</td>
<td>Rajasthan</td>
<td>2</td>
<td>120.02</td>
</tr>
<tr>
<td>Palanpur / Khemana - Abu Road</td>
<td>27</td>
<td>Rajasthan/Gujarat</td>
<td>1</td>
<td>45.00</td>
</tr>
<tr>
<td>Jetpur Somnath</td>
<td>151</td>
<td>Gujarat</td>
<td>2</td>
<td>102.26</td>
</tr>
<tr>
<td>Purnea Dalkhola</td>
<td>31</td>
<td>Bihar</td>
<td>1</td>
<td>36.30</td>
</tr>
<tr>
<td>Dalkhola Islampur</td>
<td>31</td>
<td>West Bengal</td>
<td>1</td>
<td>51.97</td>
</tr>
<tr>
<td>Islampur - Sonapur – Ghoshpukur</td>
<td>31</td>
<td>West Bengal</td>
<td>1</td>
<td>44.00</td>
</tr>
<tr>
<td>Salsalabari - West Bengal Assam Border Section</td>
<td>31C</td>
<td>West Bengal</td>
<td>1</td>
<td>26.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>12</td>
<td></td>
<td></td>
<td><strong>586.55</strong></td>
</tr>
</tbody>
</table>

Initial Estimated Concession Value of Authority: INR 5362 crores (USD 0.80 bn)
Comprehensive technical studies conducted

1. 360 Degree Evaluation of Asset Parameters
   - Mobile LIDAR Survey
   - Drone Videography

2. Technology-Driven Investigations
   - Traffic Volume Count Survey

3. Systematic Approach to Analyze Data and Evaluate Highway Assets
   - Pavement Investigation using Falling Weight Deflectometer
   - Pavement Investigation using Network Survey Vehicle

NHAI has conducted comprehensive technical studies. Raw data is being made available to the prospective bidders.
Qualification Criteria - RFP

**Technical Qualification [Clause 2.2.2 (A) of RFP]**

- To be considered as qualified Bidder, the entity either itself or through its O&M partner, shall have expended a minimum of **Rs. 299.97 crores (0.05 billion approx.)** and;

- shall have, as an O&M Contractor individually or through Joint Venture, handled for **a minimum period of 2 (two) years at least 2 (two) road projects**, each of which is at least **58.65 km** in length

**Financial Qualification [Clause 2.2.2 (B) of RFP]**

The financial qualification criteria is based on:

- Net worth: **Rs. 2,144.80 crores (0.33 billion approx.)** or

- Assets Under Management: **Rs. 26,810 crore (4.12 billion approx.)**
## Timelines of Bidding Process

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation of RFP (NIT)</td>
<td>06/08/2018</td>
</tr>
<tr>
<td>Last date for receiving queries</td>
<td>27/08/2018</td>
</tr>
<tr>
<td>Pre-Bid meeting at venue mentioned at Clause 2.11.4</td>
<td>31/08/2018</td>
</tr>
<tr>
<td>Authority response to queries latest by</td>
<td>14/09/2018</td>
</tr>
<tr>
<td>Last date for submission of Bids</td>
<td>05/11/2018</td>
</tr>
<tr>
<td>Physical Submission of Bid Security/POA etc.</td>
<td>05/11/2018 till 11.00 Hrs IST on Bid Due Date</td>
</tr>
<tr>
<td>Opening of Technical Bids at venue provided in Clause 2.11.4</td>
<td>06/11/2018 at 11.30 Hrs. on Bid Due Date</td>
</tr>
<tr>
<td>Declaration of eligible / qualified bidders</td>
<td>within 30 days from Bid Due Date</td>
</tr>
<tr>
<td>Opening of Financial Bid</td>
<td>within 45 days from Bid Due Date</td>
</tr>
<tr>
<td>Letter of Award (LOA)</td>
<td>Within 90 days of Bid Due Date</td>
</tr>
<tr>
<td>Validity of Bid</td>
<td>120 days from Bid Due Date</td>
</tr>
<tr>
<td>Signing of Agreement</td>
<td>Within 30 days of award of LOA</td>
</tr>
</tbody>
</table>
Mr. Nitin Gadkari, Hon’ble Minister of Road Transport and Highways, Government of India
Thank You