Output and Performance Based Road Contracts (OPRC)

An Alternate PPP Model

Concept

Mumbai
December 6, 2011

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Various Contracting Models

• Item Rate (FIDIC)
• EPC/Design and Build
• Design Build Maintain Operate and Transfer
  • (Long Term based on Asset Management Principles) – PPP
  • Annuity, BOT-Toll, OPRC
Cash Flow and Payment Modalities....
What is Output and Performance based Road Contract (OPRC) ?

• **Focus on output not input** – thus eliminate risks of client to pay on completion of works even if outcome is unfit for clients needs

• **Measure outputs based on actual performance** – what is achieved rather than what is done

• **Profit sharing, an incentive for PPP** – thus practical for PPP arrangement by aligning the motivation and performance of contractors with client’s needs and goals

• **Contractors become stakeholders** by being directly rewarded for value they achieve for Client. Financial Model and Payment Schedule

• **Flexibility and cost effective overall interventions, specifically maintenance**
What is Output and Performance based Road Contract (OPRC) ?

Why OPRC ?

✓ New way -- Road Works Contracting
✓ New way -- Road Asset Management
✓ New way -- Public Private Partnership (PPP)

BASIC CHARACTERISTICS:

✓ Increase efficiency and effectiveness of road asset management under single contract.
✓ Contracting Entity → A type of firm or business venture having the necessary contracting/technical, managerial and financial capacity.
✓ All interventions during the life span cycle of a project included in the contract. Financial Model and Payment Schedule provide for contractors continuous interest and incentives.
✓ Work selection, design and delivery are all Contracting Entity’s responsibility – Design Build Operate Maintain and Transfer contracting (DBOMT) – OPRC Contract.
✓ Higher risk sharing by private entities / contracting entity
✓ Efficiency leads to higher opportunities for Contracting Entity to increase profit margins as innovation encouraged and cost reduced.
✓ Corridor as well as for Network
OPRC: Four Type Of Quotations asked for

- Management and Maintenance Services (Rs/Month)
- Rehabilitation Works: Bring roads back to a standard they had before. (Rs/Km/Month)
- Improvement Works: Add new characteristics to the road, in response to new traffic, safety, or other considerations. (Rs/Km/Month)
- Emergency Works: Repair the road after damage from unforeseeable events. (BOQ)
# Bid Evaluation for OPRC contracts

<table>
<thead>
<tr>
<th>Activity</th>
<th>Bid Evaluation basis</th>
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<tbody>
<tr>
<td>Management &amp; Routine Maintenance:</td>
<td>Network km × Lumpsum per km/month × No. of months</td>
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<tr>
<td>Rehabilitation Works:</td>
<td>Output Unit prices × quantities</td>
</tr>
<tr>
<td></td>
<td>(e.g. strengthening/Km)</td>
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<tr>
<td>Improvement Works:</td>
<td>Output Unit prices × quantities</td>
</tr>
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<td>(e.g. widening to four lane/Km)</td>
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<tr>
<td>Emergency Works:</td>
<td>Hypothetical Input Quantities × input unit prices</td>
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<tr>
<td><strong>TOTAL BID PRICE:</strong></td>
<td>SUM OF THE ABOVE</td>
</tr>
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<td>(Net present value)</td>
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Basics

• Engineering Investigations/Data Collection (light)
• Traffic Model (growth, pattern of changes, description of the model and its major features),
• Concept Design and Specifications Provided
• Service level defined and linked to monthly payments (reductions defined if not met)
• Contract period – ideally 10-15 year
Basics

• Pavement Deterioration Model developed and Required Residual Life of pavement defined for taking over.

• Risk Framework prepared and included in the contract.

• Best Value for Money – Financial Model Developed (Payment Schedule, specified in the contract)

• Bid requires a ‘Contracting Entity’ or Developer – Contractor + Consultant as this is more of a management contract.
Payment Mechanism

• Contracting Entity prepares a compliance report + Bill
• Employer through a monitoring consultants check this compliance report
• Payment reductions well defined if compliance not achieved.
• Continuous non-compliance triggers actions (could be termination)
The Concessionaire guarantees structure will be required during the entire construction period because the Government must protect itself against Concessionaire’s potential breach at all times during the project cycle.

- **Tender Bond**
  - To ensure Contracting Entity’s commitment until financial closure.
  - Small amount

- **Financial Closure Bond**
  - To ensure Contracting Entity’s will reach financial closure.
  - Significant amount

- **Construction Performance Bond**
  - Usual Guarantee.
  - This guarantee will be returned after full completion of construction and completion certificate issued.

- **Operation and Maintenance Bond**
  - Provided once it is granted a license to operate the asset.
  - The amount shall be derived from operating and maintenance costs and assessment of the potential damage resulting from neglecting maintenance.

- **Pre – Transfer Bond**
  - Guarantee to secure the transfer of the road according to the level of service required.
  - Validity of this bond should be enforced until 1 or 2 years after the end of the concession period.
Typical Guarantee Structure for OPRC Projects

- **Tender Bond at submission**
- **Financial Closure Bond at signature**
- **Construction Bond at Notice to proceed**
- **Compliance with milestone during construction**
- **Permit to operate**
- **Permit to operate + 3 years**

**Pre-transfer Bond:**
3 yr prior to end of concession with validity of 2 yr after end concession

**Construction Bond**
Asset Management -- Lifespan of Road Asset

Asset management applied to the entire life of assets.
Let us try this out .....  
Ready to do some pilots OPRC ?