

No. RW/NH-24036/27/2010-PPP
Government of India
Ministry of Road Transport & Highways
(PPP Zone)

Transport Bhawan,
1, Parliament Street,
New Delhi-110001

Dated the 10th August, 2016

Circular

Subject: Updating of the cost norms in respect of National Highways Projects.

The cost norms as considered by B. K. Chaturvedi Committee in its report of 2009 were updated by the Ministry of Road Transport & Highways vide O.M. No. RW/NH-24036/27/2010-PPP dated 10th August, 2015 and its amendment vide O.M. No. RW/NH-24036/27/2010-PPP dated 17th September, 2015. This Circular seeks to update the cost norms up to the current financial year i.e. 2016-17 along with necessary clarifications.

2. The cost captured in the B. K. Chaturvedi Committee report is the Total Project Cost (TPC) for Build, Operate & Transfer (BOT) Projects. The TPC for BOT project includes the financing cost, contingencies, risk premium etc. over the civil construction cost. The TPC for BOT Projects considered in the B. K. Chaturvedi Report now stands updated based on the increase in the Wholesale Price Index (WPI) as under:

[Rs. In Crores]

| Type of Highway | TPC per km as per BKC (2009-10) | TPC per km (Rs. In Crore) | | | | | | |
|--------------------------------|---------------------------------|---------------------------|--------------------|--------------------|--------------------|-----------------|----------------------|-------------------------------------|
| | | (2010-11) | (2011-12) | (2012-13) | (2013-14) | (2014-15) | (2015-16) | (2016-17) |
| | | Escalation @ 9.56% | Escalation @ 8.94% | Escalation @ 7.36% | Escalation @ 5.98% | Escalation @ 2% | Escalation @ (-)2.5% | Escalation @ (-)2.5% (Provisional)* |
| 2 lane + paved shoulder on BOT | 3.5 | 3.83 | 4.18 | 4.48 | 4.75 | 4.845 | 4.724 | 4.606 |
| 4 lane on BOT | 9.5 | 10.41 | 11.34 | 12.17 | 12.9 | 13.158 | 12.829 | 12.508 |
| 6 lane on BOT | 10 | 10.96 | 11.94 | 12.82 | 13.59 | 13.862 | 13.515 | 13.177 |

*WPI for the year 2016-17 is not available as of now. Therefore, the escalation of previous year (-2.5%) has been considered for 2016-17. The escalation is based on Whole Sale Price Index (WPI) available on the website of Senior Economic Adviser, Ministry of Commerce and Industry.



3. The Total Project Cost for BOT Projects includes Financing charges, escalation during construction, interest during construction etc. For example, a Project with a civil cost of Rs. 100 crore will have the following components in the TPC:

| Sl. | Items | Amount (Rs. in crore) |
|------|---|--------------------------|
| I. | Civil Cost | 100.00 |
| II. | Contingencies @ 1% of Civil Cost | 1.00 |
| III. | Total EPC Cost | 101.00 |
| IV. | Centages: | |
| | a) IC/Pre-operative expenses @ 1% of EPC | 1.01 |
| | b) Financing Charges @2% of debt amount upto EPC Cost of Rs 500 crore, @1.5% for EPC more than Rs 500 crore and less than Rs 1000 crore, @1% for EPC cost more than Rs 1000 crore | 1.41 |
| | c) Interest During Construction @ 12.5% per annum | 11.61 |
| | d) Escalation during Construction @ 5% per annum | 8.59 |
| | Centages over EPC cost (a+b+c+d) | 22.62 |
| | Total Project Cost (III + IV) | 123.62 |
| | As per MCA this could be rounded of to 25% of the civil cost | |

4. For the Projects implemented on the Engineering Procurement Construction (EPC) Mode, the centages over civil construction cost include Supervision Charges, Quality Control Charges, Escalation etc. as advised by Department of Expenditure (Plan Finance II) vide D.O. No. 24(25)/PF-II/2012 dated 31.10.2012. For example, a Project with a civil construction cost of Rs. 100 crore will have the following components:

| Sl. | Items | Amount (Rs. in crore) |
|-------|--|--------------------------|
| I. | Civil Cost | 100.00 |
| II. | Contingencies @ 2.8% | 2.80 |
| III. | Supervision consultancy charges @ 2% | 2.00 |
| IV. | Administrative charges @ 1% | 1.00 |
| V. | Quality control charges @ 1% | 1.00 |
| VI. | Road safety audit charges | 0.5 |
| VII. | Escalation @ 5% for 2 years | 10.00 |
| VIII. | Maintenance charges @ 5.0% for 4 years | 5.00 |
| IX. | Total cost including centages | 122.30 |
| | This could be rounded off to 25% of the civil cost | |

5. It may be seen from the above that the centages over the civil construction cost in BOT project are almost the same as the centages considered for the EPC project over and above its civil construction cost. Therefore, the normative cost in respect of Total Project

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Cost for BOT project and the civil construction cost plus centages for EPC project, for estimate purposes, can be treated as the same. Accordingly, the normative cost (civil cost + centages) for EPC Projects, in accordance with the TPC in para-4 of this circular, can be determined as under:

| Type of Project | (Civil Cost + Centages) per km (2013-14)* | (Civil Cost + Centages) per km (2014-15) | | (Civil Cost + Centages) per km (2015-16) | | (Civil Cost + Centages) per km (2016-17) | |
|---------------------------------|---|--|-----------------------|--|-----------------------|--|-----------------------|
| | Amount (Rs. in crore) | Escalation | Amount (Rs. in crore) | Escalation | Amount (Rs. in crore) | Escalation | Amount (Rs. in crore) |
| 2 lane + paved shoulders on EPC | 4.75 | 2% | 4.845 | (-)2.5% | 4.724 | (-)2.5% (Provisional) | 4.606 |
| 4 lane on EPC | 12.9 | | 13.158 | | 12.829 | | 12.508 |
| 6 lane on EPC | 13.59 | | 13.862 | | 13.515 | | 13.177 |

*EPC (lump sum) started from 2013-14.

6. For the projects implemented on Hybrid Annuity Mode, the Estimated Project Cost include escalation (for the time between project preparation and bid due date), contingencies, IC/Pre-operative expenses, financing charges and interest during construction over and above the Civil Cost. For example, a Project with Civil Cost of Rs. 100 Crores will include the following components in the Estimated Project Cost:

| Sl. | Items | Amount (Rs. in crore) |
|------|--|--|
| I. | Base Civil Cost at the time of project preparation | 100.00 |
| II | Escalation @ 5% (Considering 1 year time between project preparation and bid due date) | 5.00 |
| III. | Contingencies @ 1% of Civil Cost (I+II) | 1.05 |
| IV. | Total EPC Cost (I+II+III) | 106.05 |
| V. | IC/Pre-operative expenses @ 1% of Total EPC Cost (IV) | 1.060 |
| VI | Financing Charges @2% of debt amount upto EPC Cost of Rs 500 crore, @1.5% for EPC more than Rs 500 crore and less than Rs 1000 crore, @1% for EPC cost more than Rs 1000 crore | 0.730 |
| VII | Interest During Construction @ 11.7% per annum on Debt* | 7.44 |
| VIII | Centages over EPC cost (V+VI+VII) | 9.23 |
| IX | Estimated Project Cost (IV+VIII) | 115.28 say 115 (1.15 times base civil cost at the time of project preparation) |

* Assuming construction period of 2.5 years and debt borrowed as 27%, 52% and 21% during the first year, second year and in last six months respectively.

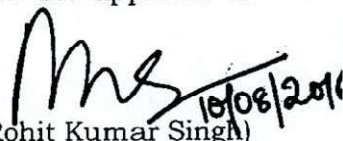
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7. As can be observed above, in Hybrid Annuity Mode, Estimated Project Cost is taken approximately 1.15 times of Civil Cost. Hence, for Hybrid Annuity Projects, normative Civil Cost may be taken for Standing Cost Committee prospect which will be TPC for BOT Project divided by 1.25. In view of this, updated normative Civil Cost for flexible pavement on Hybrid Annuity Mode from 2015-16 (since Hybrid Annuity started from 2015-16) will be as under:

| Type of Project | (Civil Cost + Centages) per km (2015-16) for BOT/EPC Project | (Civil Cost) per km (2015-16) for Hybrid Annuity Project | (Civil Cost) per km (2016-17) for Hybrid Annuity Project | |
|---------------------------------|--|--|--|-----------------------|
| | Amount (Rs. in crore) | Amount (Rs. in crore) | Escalation | Amount (Rs. in crore) |
| 2 lane + paved shoulders on EPC | 4.724 | 3.779 | (-)2.5% (Provisional) | 3.685 |
| 4 lane on EPC | 12.829 | 10.263 | | 10.00 |
| 6 lane on EPC | 13.515 | 10.812 | | 10.541 |

8. As per Ministry's Circular No. RW/NH-24036/27/2010-PPP (Pt) dated 06.01.2016, for projects with Total Project Cost more than Rs. 1000crores and the average cost more than the normative updated cost, they shall continue to be examined by "Standing Cost Committee" irrespective of mode of delivery before circulating the same for EFC/PPPAC as the case may be. Further, for projects with Total Project Cost upto Rs. 1000crores and the average cost NOT MORE THAN 20% of the normative updated cost, the cost aspect including its financial sustainability shall be examined and deliberated by EFC/SFC, irrespective of the mode of delivery. It exceeds 20% of normative cost, the project shall be examined by Standing Cost Committee and its recommendations placed before the EFC/SFC for appraisal.

9. This issues with the concurrence of IFD of this Ministry and the approval of Competent Authority.


(Rohit Kumar Singh)

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To,

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5. Chairman, NHAI, New Delhi.
6. SS&FA, MoRTH.
7. DG(RD)&SS, MoRTH.
8. ADG-I, ADG-II; MoRTH.
9. JS (Highways), MoRTH.
10. Co-ordinator-I, Co-ordinator-II, Co-ordinator-III; MoRTH

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