



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
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NHAI/Policy Guidelines/ Linking factor due to change of base year/2018
Policy No.18.30, Dated the 20th March 2018

(Approved by EC in its meeting held on 13.03.2018 under Agenda Item No 338.25)

Sub: Linking factor due to change of base year of WPI from 2004-05 to 2011-12.

Due to change of base year of Wholesale Price Index (WPI) from year 2004-05 to 2011-12-references have been received from field units of NHAI (from ROs & PIUs.) for mechanism for adoption of WPI series 2011-12 for payment of price escalation in the contracts with base year of WPI as 2011-12. The Wholesale Price Index (WPI) is an economy wide index published by Office of the Economic Adviser (OEA) since 1942. The base of the index, however, is being continuously revised and the latest series is with the base 2011-12=100. The selection of commodities, weights structure and the source agencies for supply of price quotations are decided by a Working Group constituted at the time of revision of the base. The Wholesale Price Index (WPI) series has been last revised on May 12, 2017 by shifting base year from 2004-05 to 2011-12. Linking factor given for conversion of WPI (2011-12) indices to WPI (2004-05) series should be used from April 2017 onwards as notified in the website of OEA (www.eaindustry.nic.in).

2. Some of the items of the old series have been dropped and some new issues have been included in the new series. List of items dropped or revised from WPI series (2004-05) and list of items added or revised in WPI series (2011-12) are available on the website (www.eaindustry.nic.in) of the Ministry of Commerce & Industry, Govt. of India.

3. The number of items in commodity basket of the index has increased from 676 in the old series to 697 items in the revised series, there has been a complete review of the commodity basket. All such items, which have become obsolete or have become relatively less important vis-à-vis other items, have been dropped and new items, which have emerged as important ones, have been included. Thus, there cannot be a one to one correspondence between items in the two series. Number of quotations has also been increased significantly from 5482 to 8331 and average number of price quotation per commodity has increased from 8 quotations in 2004-05 to 12 quotations per commodity in 2011-12.

4. In order to maintain continuity in the time series data on wholesale price index, linking factors have been provided so that the new series, may be compared with the earlier one. The linking factor to link the WPI 2004-05 to WPI 2011-12 is developed by using the Athematic conversion method as was the case during earlier transition to new base year.

5. The formula for toll revision uses WPI (All commodities) but the price adjustment formula for escalation in NHAI use WPI for (a) All commodities (b) Cement & Lime (c) Grey Cement (d) Steel (Rods), (e) Rebars (f) Construction machinery etc.). OEA provides linking factors only at All commodities level and major group levels not at further disaggregate level.

6. Broad guidelines in respect of linking factor for WPI to be followed are as under:

6.1 For fresh Contracts:

For all the contracts entered afresh, the price variation formula may be defined by using the items available in the new basket (i.e. of WPI 2011-12). Generally lower level

item indices have more variability than indices at more aggregated level where volatility is smoothed out. Most indices are produced according to hierarchical structure with indices at several levels of aggregation within the hierarchy. Therefore, it is suggested that escalation contracts should ideally be linked to index value at two digit level or four digit level of aggregation.

6.2 For Old Contracts signed and still continuing:

The old series of WPI (2004-05) has been released by OEA till March 2017. While launching the new series with base year 2011-12, OEA has notified that WPI with base 2011-12 is effective from April 2017. Data for WPI (2011-12) series has however been provided from April 2012 to March 2017 for the purpose of research and analysis only. As such, for toll revision and price variation formula in NHAI, WPI of 2004-05 series as released by OEA would be used without applying Linking Factor till March, 2017. Linking factor for conversion of WPI (2011-12) indices to WPI (2004-05) series shall be used from April 2017 onwards.

6.3 Summary of linking factors to be used in NHAI with effect from April 2017 are as under:-

Item/Item Group in the Old Series (2004-05)	Corresponding item/ group of items in the new series (2011-12)	WPI for FY 2016-17 # with Base Year		Linking Factor= Col(3)/Col (4)
		2004-05	2011-12	
(1)	(2)	(3)	(4)	(5)
All Commodities	All Commodities	183.2000	111.6167	1.641
Primary articles	Primary articles	261.6500	128.8500	2.031
Fuel & Power	Fuel & Power	189.9000	86.2750	2.201
Manufactured Products	Manufactured Products	157.3833	110.7083	1.422
Cement & Lime	Manufacture of Cement, lime and plaster	175.4833	110.5833	1.587
Grey Cement	Ordinary Portland Cement	175.2333	107.8167	1.625
Steel (rods)	Stainless Steel bars & rods, including flats	160.1000	81.9583	1.953
Rebars	MS Bright Bars	151.8417	79.8500	1.902
Construction Machinery @	Weighted average of (i) Loader (wt. 0.00379) and (ii) Concrete Vibrator & Mixer (wt. 0.01692)	141.5667	109.7333	1.290

Simple average of monthly WPI from April-16 to Mar-17

@ Formula for getting WPI (2004-05) of Construction Machinery by using Linking Factor:

$$WPI_{CM} (04-05) = 1.290 \times [0.00379 \times WPI_{LOADER}(11-12) + 0.01692 \times WPI_{Conc.vibrator}(11-12)] / [0.00379 + 0.01692]$$

7. This issue with the approval of the Competent Authority.

(V.K. Sharma)
Chief General Manager (Coord.)

To

All Officers at NHAI HQ/ROs/PIUs/CMUs/Site Offices.
Hindi Officer for translation in Hindi