Central Electricity Regulatory Commission
3rd & 4th Floor, Chanderlok Building, 36 Janpath, New Delhi–110 001
(Tele No.23353503 Fax No.23753923)

ADDENDUM TO THE EXPLANATION TO THE NOTIFICATION DATED 31.3.2011

1. Explanation with respect to Conversion Factors and the Methodology for their Determination

In the explanation to the Notification dated 31.3.2011, in the paragraphs above Table 1 (page 3), Table 3.3 (page 6), Table 6.3 (page 12), Table 7 (Page 13), and Table 8 (page 14&15); it has been mentioned that the data on WPI for the period 2005-09 has been taken from the website of MC&I (Ministry of Commerce and Industry) and the data for the period prior to that has been arrived at by using conversion factors. The explanation, however, does not provide data on the conversion factors or the method of arriving at these factors.

In this connection, although paragraphs 5 and 6 of the previous Notification dated 28.12.2010, state as quoted under, to provide more clarity and transparency and to make the explanation to the Notification dated 31.03.2011 complete in all respects, this Addendum to the Explanation to the Notification dated 31.03.2011 is being issued to provide data and elaboration on various conversion factors and their determination as well as provide elaboration on the general methodology used for arriving at the values of the WPI or its disaggregated series prior to 2004-05, through a sample calculation for WPI data for non-coking coal (see Annexure 1 to this Addendum):

.

The explanation to the Notification dated 28.12.2010, states:

"5. While determining the escalation factors for some of the parameters for the purpose of bid evaluation and payment, CERC uses as input, Ministry of Commerce and Industry (www.eaindustry.nic.in) notified Wholesale Price Index (WPI) as well as some of its disaggregated series (e.g. Non-coking coal; Matches, Explosives & Other Chemicals; High speed diesel; Heavy Machinery & Parts; etc.). Hitherto, CERC has been using the WPI and the corresponding disaggregated series with the year 1993-94 as the base. In the month of September 2010, Ministry of Commerce and Industry (MC&I) has come out with new WPI series with year 2004-05 as the base. MC&I have advised that the applicability or the effective

date of the new series be August 2010. In view of this, the new WPI and the new disaggregated series have been used (and will be used for all future Notifications) for determining the escalation factors in this Notification.)

6. For determining the escalation rates for evaluation purpose, data for past 12 years is required and since the new WPI series only goes as far back as 2004-05, suitable conversion factors have been used to arrive at index values for various WPI and its disaggregated series for periods prior to 2004-05. The methodology for arriving at these conversion factors (called as "linking factors" by MC&I) is provided by MC&I for WPI and a sample of sub-series, the same has been used in this Notification for arriving at the pre 2004-05 index values for WPI and its disaggregated series."

2. Relevance of New WPI Series and Need for its Use

As elaborated in the explanation to the previous notification dated 28.12.2010, MC&I have advised that the applicability or the effective date of the new series be August 2010. The rationale behind adopting the new WPI series is that there is no relevance of old WPI series (with year 1993-94 as the base) when the new WPI series (with year 2004-05 as the base) is available since September 2010 for the reason that the new series adequately reflects the current structure of the economy unlike the old series which reflects the structure of the economy nearly 15 years ago.

3. Conversion Factors and their determination

In order to maintain continuity in the time series data on WPI, it is imperative to provide a conversion factor so that the new series, when released, may be compared with the outgoing one. The MC&I uses the arithmetic conversion method to link the various index series including WPI for All Commodities. The same conversion method has been used by CERC while converting the old WPI series into new WPI series for the period prior to 2004-05. The formula for the conversion factor is:

Conversion Factor = Average Index value for the year 2004-05 (average of weekly or monthly index values, as the case may be) /100

Using the arithmetic conversion method, the conversion factor for WPI for Non-coking coal has been computed based on old WPI series in the following table:

Determination of Conversion Factor for WPI Non-coking coal	
Period	**WPI for Non-coking coal (1993-94=100)**
Apr-04	201.3
May-04	201.3
Jun-04	209.2
Jul-04	232.8
Aug-04	232.8
Sep-04	232.8
Oct-04	232.8
Nov-04	232.8
Dec-04	232.8
Jan-05	232.8
Feb-05	232.8
Mar-05	232.8
Average Index for 2004-05	**225.583**
Conversion Factor= (Average Index/100)	**2.256**

The methodology similar to the above elaborated methodology has been used to arrive at conversion factors for WPI and its disaggregated series used in the notification dated 31.3.2011 and the values of the same are provided in the following table.

Name of the Commodity	**Conversion Factor (Average of 2004-05 old WPI series /100)**
ALL COMMODITIES	1.873
Non-coking coal	2.256
High speed diesel oil	3.604
Tyres	1.190
Matches Explosives & Other Chemicals nec	1.286
Machinery & Machine Tools	1.402

Using the conversion factors given in the Table above, the new comparable series have been generated for the period prior to 2004-05 by using the following formula:

Comparable Converted Index Value for year “i” prior to 2004-05 = Average Index Value for the year “i” with the Old WPI series (1993-94=100) divided by the corresponding conversion factor.

Annexure 1 shows sample calculation to arrive at comparable converted series for the period prior to 2005 with respect to WPI for non-coking coal.

ANNEXURE 1 TO THE ADDENDUM TO THE EXPLANATION TO THE NOTIFICATION DATED 31.3.2011

The new comparable series have been generated for the period prior to 2004-05 by using the following formula:

Comparable Converted Index Value for year "i" prior to 2004-05 = Average Index Value for the year "i" with the Old WPI series (1993-94=100) divided by the corresponding conversion factor.

An example showing how the new comparable series for WPI for non-coking coal for the period prior to 2004-05 has been generated using the monthly data is shown below:

WPI for Non-Coking Coal prior to 2004-05			
Period	**WPI for Non-coking coal Base 1993-94=100**	**Conversion Factor (Average of 2004-05 Index for Non-coking Coal/100)**	**WPI for Non-coking coal Converted from Base 1993-94=100 to Base 2004-05=100**
	(1)	**(2)**	**(1/2)**
INDX011998	138.9	2.256	61.6
INDX021998	139.9	2.256	62.0
INDX031998	143.0	2.256	63.4
INDX041998	143.0	2.256	63.4
INDX051998	143.0	2.256	63.4
INDX061998	143.0	2.256	63.4
INDX071998	143.0	2.256	63.4
INDX081998	143.0	2.256	63.4
INDX091998	143.0	2.256	63.4
INDX101998	143.0	2.256	63.4
INDX111998	143.0	2.256	63.4
INDX121998	143.0	2.256	63.4
1998	**142.4**		**63.1**
INDX011999	143.0	2.256	63.4
INDX021999	143.0	2.256	63.4
INDX031999	143.0	2.256	63.4
INDX041999	143.0	2.256	63.4
INDX051999	143.0	2.256	63.4
INDX061999	143.0	2.256	63.4
INDX071999	143.0	2.256	63.4
INDX081999	147.2	2.256	65.2
INDX091999	151.3	2.256	67.1
INDX101999	151.3	2.256	67.1
INDX111999	151.3	2.256	67.1
INDX121999	151.3	2.256	67.1

1999	**146.1**		**64.8**
INDX012000	151.3	2.256	67.1
INDX022000	151.3	2.256	67.1
INDX032000	151.3	2.256	67.1
INDX042000	151.3	2.256	67.1
INDX052000	151.3	2.256	67.1
INDX062000	151.3	2.256	67.1
INDX072000	151.3	2.256	67.1
INDX082000	151.3	2.256	67.1
INDX092000	151.3	2.256	67.1
INDX102000	151.3	2.256	67.1
INDX112000	151.3	2.256	67.1
INDX122000	151.3	2.256	67.1
2000	**151.3**		**67.1**
INDX012001	151.3	2.256	67.1
INDX022001	183.6	2.256	81.4
INDX032001	183.6	2.256	81.4
INDX042001	183.6	2.256	81.4
INDX052001	183.6	2.256	81.4
INDX062001	183.6	2.256	81.4
INDX072001	183.6	2.256	81.4
INDX082001	183.6	2.256	81.4
INDX092001	183.6	2.256	81.4
INDX102001	183.6	2.256	81.4
INDX112001	183.6	2.256	81.4
INDX122001	183.6	2.256	81.4
2001	**180.9**		**80.2**
INDX012002	183.6	2.256	81.4
INDX022002	183.6	2.256	81.4
INDX032002	183.6	2.256	81.4
INDX042002	183.6	2.256	81.4
INDX052002	183.6	2.256	81.4
INDX062002	183.6	2.256	81.4
INDX072002	183.6	2.256	81.4
INDX082002	183.6	2.256	81.4
INDX092002	183.6	2.256	81.4
INDX102002	183.6	2.256	81.4
INDX112002	183.6	2.256	81.4
INDX122002	183.6	2.256	81.4
2002	**183.6**		**81.4**
INDX012003	183.6	2.256	81.4
INDX022003	183.6	2.256	81.4
INDX032003	183.6	2.256	81.4
INDX042003	183.6	2.256	81.4

INDX052003	183.6	2.256	81.4
INDX062003	183.6	2.256	81.4
INDX072003	201.3	2.256	89.2
INDX082003	201.3	2.256	89.2
INDX092003	201.3	2.256	89.2
INDX102003	201.3	2.256	89.2
INDX112003	201.3	2.256	89.2
INDX122003	201.3	2.256	89.2
2003	**192.5**		**85.3**
INDX012004	201.3	2.256	89.2
INDX022004	201.3	2.256	89.2
INDX032004	201.3	2.256	89.2
INDX042004	201.3	2.256	89.2
INDX052004	201.3	2.256	89.2
INDX062004	209.2	2.256	92.7
INDX072004	232.8	2.256	103.2
INDX082004	232.8	2.256	103.2
INDX092004	232.8	2.256	103.2
INDX102004	232.8	2.256	103.2
INDX112004	232.8	2.256	103.2
INDX122004	232.8	2.256	103.2
2004	**217.7**		**96.5**

The converted Index values for each of the years prior to 2005, as obtained in the Table above have been used in the time series data used for computing the escalation factor for domestic coal (Table 1, page 3 of Notification dated 31.03.2011) for periods prior to 2005:

WPI for Non-coking coal	
Period	**WPI for Non-coking coal**
1998	63.12
1999	64.77
2000	67.07
2001	80.19
2002	81.38
2003	85.31
2004	96.50

Similar methodology has been used to obtain the index values for pre 2005 period for WPI and/or its disaggregated series used in Table 3.3 (page 6), Table 6.3 (page 12), Table 7 (Page 13), and Table 8 (page 14&15).

****