

MODIFICATION ARISING OUT OF MIGRATION FROM UHV BASED GRADING TO GCV SYSTEM – (POWER UTILITIES – STATE GENCOs & PPU/IPPs)

Existing Provision	New Provision	Model FSAs with corresponding clauses			
		EXISTING		NEW	
		State Gencos/SEBs	Private PU/IPPs	Private PU/IPPs	State Gencos/SEBs
“Coal” means non-coking as well as coking coal, produced by the seller and categorized into different classes, grades and sizes, as per the notification/order issued for such purpose by Government of India(GoI)/CIL/ Seller and shall, where the context so requires, include Imported Coal. For the avoidance of any doubt, Coal shall also include the middling arising out of washing of coking and non-coking coal.	Coal” means non-coking as well as coking coal, produced by the seller and categorized into different classes, GCV <i>bands</i> , grades and sizes, as per the notification/order issued for such purpose by Government of India(GoI)/CIL/ Seller and shall, where the context so requires, include Imported Coal. For the avoidance of any doubt, Coal shall also include the middling arising out of washing of coking and non-coking coal.	1.1(g)	1.1(g)	1.1(g)	1.1(g)
“ Declared Grade ” means the particular grade(s) under different categories of Coal mined from any seam or section of a seam in the Seller’s collieries from which Coal is produced and supplied under this Agreement, as declared by CIL or the Seller	Declared Grade ” means the particular grade(s) under different categories [<i>as defined at 1.1(*)</i>] of Coal mined from any seam or section of a seam in the Seller’s collieries from which Coal is produced and supplied under this Agreement, as declared by CIL or the Seller	1.1(j) *- (o)	1.1(j) *- (o)	1.1(k) * - (q)	1.1(k) * - (q)
“ Grade ” means the grade / class in which the coking and non-coking Coal are categorized and/or to be categorized in terms and in accordance with the relevant notification by Govt. of India and published in Gazette of India,	“ Grade ” means the grade / class in which the coking and non-coking Coal are categorised and/or to be categorised in terms and in accordance with the relevant notification issued by the Seller and/or by Govt. of India and published in the public domain and/or the Gazette of India, as applicable. The basis of grading for different categories of coal are as under: :	1.1(o)	1.1(o)	1.1(q)	1.1(q)

	<p>i. <i>Non Coking Coal : based on GCV bands</i> ii. <i>Coking Coal : based on Ash percentage</i> iii. <i>Semi Coking Coal : based on (Ash+Moisture) percentage</i></p>				
<p>“Useful Heat Value” or “UHV” means the heat value determined on Equilibrated Basis by the following formula:</p> <p>UHV = 8900-138 x [A + M]</p> <p>where</p> <p>UHV = Useful Heat Value in kilo calories per kilogram (KCal/kg)</p> <p>A = Ash content; and</p> <p>M = Moisture content</p> <p>In the case of Coal having moisture less than two per cent (2%) and volatile content less than nineteen percent (19%), the UHV shall be the value arrived at as above reduced by 150 KCal/kg for each one percent (1%) reduction in volatile content below nineteen per cent (19%) fraction pro rata.</p>	<p>“Gross Calorific Value or “GCV” means the heat value determined on Equilibrated Basis through a Bomb Calorimeter in accordance with to the procedure laid down in IS:1350 (Pat-II)1970:</p>	1.1(ff)	1.1(ff)	1.1(kk)	1.1(kk)
<p>The Seller shall make adequate arrangements to assess the quality and monitor the same to endeavour that un-graded Coal is not loaded into the Purchaser’s Containers. If the Seller sends any quantity of such Coal, the Purchaser shall limit the payment of cost of Coal to Re.1/- (Rupee one only) per tonne. Royalty, cess, sales tax, etc. shall however be paid as per the Declared Grade. Railway freight shall be borne by the Purchaser.</p>	<p>The Seller shall make adequate arrangements to assess the quality and monitor the same to endeavour that un-graded Coal (GCV of less than 2200 Kcal/Kg for Non-coking coal) is not loaded into the Purchaser’s Containers. If the Seller sends any quantity of such Coal, the Purchaser shall limit the payment of cost of Coal to Re.1/- (Rupee one only) per tonne. Royalty, cess, sales tax, etc. shall however be paid as per the Declared Grade.</p>	4.2	5.2	5.2	4.2

	Railway freight shall be borne by the Purchaser.				
Samples of Coal shall be collected jointly by manual method during each of the shifts and at each of the Delivery Points for determining the quality of Coal.	Samples of Coal shall be collected jointly either manually or through any suitable mechanical sampling arrangement including Augur Sampling method during each of the shifts and at each of the Delivery Points for determining the quality of Coal.	4.7.1	5.7.1(i)	5.7(i)	4.7.1
<p>Daily Gross Sample</p> <p>a) The Gross Sample collected from a rake and/or day's supply for determination of moisture, ash & volatile matter on equilibrated basis shall be jointly reduced into laboratory sample on the date immediately following the date of collection. The final laboratory samples will be divided into two parts viz. Set – I and Set – II, as follows</p> <ul style="list-style-type: none"> • Set – I shall be used for joint analysis to determine the ash, moisture and volatile matter. • Set – II shall be kept under joint seal as stand-by sample in the safe custody for a period of fourteen (14) days or until the analysis results of Set – I are accepted without dispute, whichever is earlier. <p>b) The sample in Set -I shall be analysed for ash, moisture and volatile matter content on equilibrated basis {wherever required in accordance with IS: 1350 (Part –I) – 1984 and IS: 1350 (Part – II) – 1970.</p> <p>c) Set-I of the laboratory sample as prepared shall be jointly analysed at the Seller's laboratory at the loading end as per relevant part of IS: 1350 (Part – I) – 1984 and IS: 1350 (Part – II) – 1970 within</p>	<p>Daily Gross Sample</p> <p>a) The Gross Sample collected from a rake and/or day's supply for determination of moisture, ash and GCV on equilibrated basis shall be jointly reduced into laboratory sample on the date immediately following the date of collection. The final laboratory samples will be divided into two parts viz. Set – I and Set – II, as follows</p> <ul style="list-style-type: none"> • Set – I shall be used for joint analysis to determine the ash, moisture and and GCV as per BIS standards IS 1350 Part-I ,1984 and IS 1350 Part-II-1970 respectively. • Set – II shall be kept under joint seal as stand-by sample in the safe custody for a period of fourteen (14) days or until the analysis results of Set – I are accepted without dispute, whichever is earlier. <p>b) The sample in Set -I shall be analysed for ash, moisture and GCV on equilibrated basis {wherever required in accordance with IS: 1350 (Part –I) – 1984 and IS: 1350 (Part – II) – 1970.</p> <p>c) Set-I of the laboratory sample as prepared shall be jointly analysed at the Seller's laboratory at the loading end as per relevant part</p>	4.7.3(ii)	5.7.3(ii)	5.7.3(ii)	4.7.3(ii)

<p>three-four (3-4) days from the date of preparation and distribution of laboratory sample for proximate analysis.</p> <p>d) In the event of any dispute (which shall be raised not later than forty-eight (48) hours after analysis) on the joint analysis of set - I, the stand-by sample as in set - II shall be analysed jointly at the Seller's Laboratory at the loading end within seventy two (72) hours of the dispute but not later than eight (8) days of the collection of samples.</p> <p>e) The procedure for storage of stand-by sample shall be mutually agreed upon by both the Parties.</p>	<p>of IS: 1350 (Part –I) – 1984 and IS: 1350 (Part – II) – 1970 within three-four (3-4) days from the date of preparation and distribution of laboratory sample for analysis of ash, moisture and GCV.</p> <p>d) No change</p> <p>e) No change</p>				
<p>For Grade A, Grade B, Steel Grade I, Steel Grade II, Washery Grade I, Washery Grade II, Semi-coking Grade I, Semi-coking Grade II and washed Coal; any idle freight for under-loading below the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight, as the case may be, shall be borne by the Seller. For all other Grades of Coal, any idle freight for under-loading below the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight, as the case may be, plus two (2) tonnes shall be borne by the Seller.</p>	<p>For Non coking coal of GCV exceeding 5800 Kcal/Kg and coking coal of Steel Grade I, Steel Grade II, Washery Grade I, Washery Grade II, Semi-coking Grade I, Semi-coking Grade II and washed Coal; any idle freight for under-loading below the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight or permissible carrying capacity as notified by the Railways (route-wise) for any particular type of wagon from time to time, in which case the stenciled carrying capacity as shown on the wagon is more than the permissible carrying capacity, as the case may be, shall be borne by the Seller. For all other Grades of Coal, any idle freight for under-loading below the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight, as the case may be, plus two (2) tonnes shall be borne by the Seller. However, in the cases where permissible carrying capacity is</p>	10.2	11.2	11..2	10.2

	less than the stenciled carrying capacity, as mentioned above, the idle freight shall be borne by the Seller only up to the permissible carrying capacity.				
<p>Idle freight resulting from under loading of wagon, as per Clause [*], shall be adjusted in the bills. Idle freight shall be reckoned as:</p> <p>For Grade A, Grade B, Steel Grade I, Steel Grade II, Washery Grade I, Washery Grade II, Semi-coking Grade I, Semi-coking Grade II and washed Coal, the difference between the freight charges applicable for the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight, as the case may be, less the freight payable as per actual recorded weight of Coal loaded in the wagon; and/or</p> <p>For all other Grades of Coal, the difference between the freight charges applicable for the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight, as the case may be, plus two (2) tonnes less the freight payable as per actual recorded weight of Coal loaded in the wagon.</p>	<p>No Change</p> <p>For Non coking coal of GCV exceeding 5800 Kcal/Kg and coking coal of Steel Grade I, Steel Grade II, Washery Grade I, Washery Grade II, Semi-coking Grade I, Semi-coking Grade II and washed Coal, the difference between the freight charges applicable for the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight or permissible carrying capacity as notified by the Railways (route-wise) for any particular type of wagon from time to time, in which case the stenciled carrying capacity as shown on the wagon is more than the permissible carrying capacity, as the case may be, and the freight payable as per actual recorded weight of Coal loaded in the wagon; and/or</p> <p>For all other Grades of Coal, the difference between the freight charges applicable for the stenciled carrying capacity, as shown on the wagon or carrying capacity based on the actual tare weight, as the case may be, plus two (2) tonnes and the freight payable as per actual recorded weight of Coal loaded in the wagon. However, in the cases where permissible carrying capacity is less than the stenciled</p>	<p>10.3</p> <p>* - [10.2]</p> <p>10.3(i)</p> <p>10.3(ii)</p>	<p>11.3</p> <p>* - [11.2]</p> <p>11.3(i)</p> <p>11.3(ii)</p>	<p>11.3</p> <p>*- [11.2]</p> <p>11.3(i)</p> <p>11.3(ii)</p>	<p>10.3</p> <p>* - [10.2]</p> <p>10.3(i)</p> <p>10.3(ii)</p>

	carrying capacity, as mentioned above, the difference shall be reckoned between the freight applicable for permissible carrying capacity and the freight payable as per the actual recorded weight of coal loaded in the wagon				
<p>The bills with regard to adjustment for quality, as determined under Clause [*], shall be supported by relevant documents in respect of the analysis carried out of the following parameters:</p> <p>a) Total Moisture (%)</p> <p>b) Equilibrated Moisture (%)</p> <p>c) Ash (%)</p> <p>d) Volatile Matter (%)</p> <p>e) Useful Heat Value (Kcal/Kg)</p> <p>Provided that in the event no sample is collected from dispatches by a rake or on any day, as the case may be, from a source for any reason, the weighted average of the most recent results available in any preceding month against respective Source and Grade shall be adopted for such dispatches for which samples were not collected.</p>	<p>The bills with regard to adjustment for quality, as determined under Clause [*], shall be supported by relevant documents in respect of the analysis carried out of the following parameters:</p> <p>a) Total Moisture (%)</p> <p>b) Equilibrated Moisture (%)</p> <p>c) Ash (%)</p> <p>d) GCV (Kcal/Kg)</p> <p>Provided that in the event no sample is collected from dispatches by a rake or on any day, as the case may be, from a source for any reason, the weighted average of the most recent results available in any preceding month against respective Source and Grade shall be adopted for such dispatches for which samples were not collected.</p>	11.2.1 * - [4.7]	12.2.1 * - [5.7]	12.2.1 *- [5.7]	11.2.1 * - [4.7]
Detailed Modalities for joint sampling		Schedule-IV	Schedule -V	Schedule -V	Schedule-IV
Laboratory samples prepared shall be in the size of 12.5mm for Total Moisture and for Proximate Analysis 212 micron IS Sieve. Precaution shall be taken so that before analysis, in test laboratory , further sieving or pulverizing is not required	Laboratory samples prepared shall be in the size of 12.5mm for Total Moisture and for ash, moisture and GCV analysis 212 micron IS Sieve. Precaution shall be taken so that before analysis, in test laboratory, further sieving or pulverizing is not required.	1.1(d)	1.1(d)	1.1(d)	1.1(d)

<p>Samples collected at the loading end shall be analysed as per BIS Standards (IS:1350 Part I – 1984) for determination of ash, moisture content and volatile matter.</p>	<p>Samples collected at the loading end shall be analysed as per BIS Standards (IS:1350 Part I – 1984) for determination of ash and moisture content and as per (IS:1350Part-II-1970) for GCV.</p>	1.1(f)	1.1(f)	1.1(f)	1.1(f)
<p>The Gross Sample collected will be divided into two portions. One portion (one fourth of the Gross Sample) called Part-1 will be used for analysis of Total Moisture and the other portion (three fourth of the Gross Sample) called Part-2 for Proximate Analysis and determination of UHV on Equilibrated basis</p>	<p>The Gross Sample collected will be divided into two portions. One portion (one fourth of the Gross Sample) called Part-1 will be used for analysis of Total Moisture and the other portion (three fourth of the Gross Sample) called Part-2 for determination of ash, moisture and GCV on Equilibrated basis .</p>	1.6.1	1.6.1	1.6.1	1.6.1
<p>The Part-2 Sample shall be jointly reduced into laboratory sample on the date immediately following the date of collection. The final laboratory samples will be divided into two parts viz. Set – I and Set – II</p> <ul style="list-style-type: none"> • Set – I shall be used for joint proximate analysis at loading end as per BIS standard (IS 1350 Part 1-1984) • Set – II shall be kept under joint seal as stand-by sample in the safe custody for a period of fourteen days or until the analysis results of Set – I are accepted without dispute, whichever is earlier. <p>(remaining portion –no change)</p>	<p>The Part-2 Sample shall be jointly reduced into laboratory sample on the date immediately following the date of collection. The final laboratory samples will be divided into two parts viz. Set – I and Set – II</p> <ul style="list-style-type: none"> • Set – I shall be used for joint analysis of ash, moisture and GCVat loading end as per BIS standards IS 1350 Part 1-1984 and IS 1350 Part-II-1970 as applicable. • Set – II shall be kept under joint seal as stand-by sample in the safe custody for a period of fourteen days or until the analysis results of Set – I are accepted without dispute, whichever is earlier. <p>(remaining portion –no change)</p>	1.6.2	1.6.2	1.6.2	1.6.2