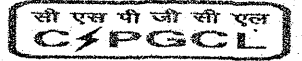


O/o CE (EITC)
Receipt No. 6483
Date 31-12-2016
DGM (IT) / SE (O)
EE.....
Section W&B



CHHATTISGARH STATE POWER GENERATION COMPANY LIMITED
(A Govt. of C.G. Undertaking)
Office of the Chief Engineer (C&CP)

NO. 03-09/ Bills-15/ 934

Raipur Dtd.

30-Dec-2016

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To,

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21/11/17

The Executive Director (Commercial)
4th Floor Vidyut Seva Bhawan
CSPDCL, Raipur

Sub: Fuel Cost Adjustment calculation for the 4th Bi-Monthly period of FY 2016-17.

Ref: 1) CSERC MYT Regulations 2015.
2) CSERC tariff order dtd. 30/04/2016

In compliance to the CSERC vide order referred above, please find enclosed herewith FCA Calculation amounting to Rs. of **1,447,726,103** /- for the 4th Bi-Monthly period of FY - 2016 - 17 (Oct. & Nov. 2016). As per CSERC order the above FCA amount shall be claimed in two installment w.e.f. **Feb-17**

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Chief Engineer (C&CP)
CSPGCL: Raipur

Copy to :-

1. The Secretary, Chhattisgarh State Electricity Regulatory Commission, New Shanti Nagar Raipur. In compliance to directives given in tariff order dtd. 23/05/2015.
2. The E.D. (Fin) CSPGCL, Raipur
3. The C.E. (EITC) CSPDCL, Raipur. -- Kindly upload the same in Company web site (cspc.co.in/cspgcl) under the link Fuel Cost Adjustment- 4th Bi Monthly (Oct 2016 to Nov 2016)
4. The S.O. to M.D. CSPGCL, Raipur
5. The S.O. to M.D. CSPDCL, Raipur
6. The Manager (B&CM) CSPGCL, Raipur

FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Korba (East) Thermal Power Station - KTPS

	Description	Unit	Considered in Tariff order	For Month of Oct-16	For Month of Nov-16	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.19077481	0.20433176	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.190774810	0.204331760	
d	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.002193910	0.002349815	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.188580900	0.201981945	
g	Amount charged by the Coal / Lignite Company	(Rs.)		351,150,418.11	306,592,373.34	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)			272,092.50	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		351,150,418.11	306,320,280.84	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1862.067782	1516.572587	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,227.76	1862.067782	1516.572587	
m	Transportation Charge per Ton	Rs/MT	177.98	177.98	177.98	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,405.74	2040.047782	1694.552587	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	2,967	2,967	2,967	
p	Normative SHR	Kcal/ KWh	3,110	3,110	3,110	
q	Normative Specific Oil Consumption	ml/ KWh	2.00	2.00	2.00	
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
s	Normative Auxiliary Consumption	%	11.25	11.25	11.25	
t	ECR for the Period= $((p-(qxr))/(0)*(n/1000))/(1-s)$	Rs/ KWh	1.650	2.394	1.989	
u	ECR as considered in Tariff order	Rs/ KWh	1.650	1.650	1.650	
v	Change in ECR (t-u)	Rs/ KWh		0.744	0.339	
w	Net Generation during the Period	KWh		193,157,000	179,528,750	
aa	FCA Claim for the Period (vXw)	Rs		143,708,808	60,860,246	204,569,054

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FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Korba (West) Thermal Power Station - HTPS

	Description	Unit	Considered in Tariff order	For Month of Oct-16	For Month of Nov-16	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.407226	0.404077	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.407226	0.404077	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000814452	0.000808154	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.406411548	0.403268846	
g	Amount charged by the Coal / Lignite Company	(Rs.)		653,143,568.83	648,092,935.71	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)			(3,162,400.00)	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		653,143,568.83	644,930,535.71	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1607.098942	1599.257027	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,214.25	1607.098942	1599.257027	
m	Transportation Charge per Ton	Rs/MT	80.75	80.75	80.75	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,295	1,687.85	1,680.01	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,356	3,356	3,356	
p	Normative SHR	Kcal/ KWh	2,650	2,650	2,650	
q	Normative Specific Oil Consumption	ml/ KWh	0.80	0.80	0.80	
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
s	Normative Auxiliary Consumption	%	9.70	9.70	9.70	
t	ECR for the Period= $((p-(qxr))/(0)*(n/1000)/(1-s))$	Rs/ KWh	1.129	1.471	1.465	
u	ECR as considered in Tariff order	Rs/ KWh	1.129	1.129	1.129	
v	Change in ECR (t-u)	Rs/ KWh		0.342	0.336	
w	Net Generation during the Period	KWh		425,061,180	392,017,150	
x	FCA Claim for the Period (vXw)	Rs		145,370,924	131,717,762	277,088,686

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FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : - 1x500 MW KW Extn

	Description	Unit	Considered in Tariff order	For Month of Oct-16	For Month of Nov-16	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)		0.200574	0.199023	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.200574	0.199023	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000401148	0.000398046	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.200172852	0.198624954	
g	Amount charged by the Coal / Lignite Company	(Rs.)		321,697,578.65	319,209,953.41	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)			(1,557,600.00)	
i	Net amount Charged by Coal Company (g+h)	(Rs.)		321,697,578.65	317,652,353.41	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f*10^6))$	Rs/MT		1607.098942	1599.257027	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,214.25	1607.099	1599.257	
m	Transportation Charge per Ton	Rs/MT	80.75	80.75	80.75	
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,295	1,687.85	1,680.01	
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,356	3,356	3,356	
p	Normative SHR	Kcal/ KWh	2,375	2,375	2,375	
q	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
s	Normative Auxiliary Consumption	%	5.25	5.25	5.25	
t	ECR for the Period= $((p-(qxr))/(0)*(n/1000))/(1-s)$	Rs/ KWh	0.965	1.258	1.252	
u	ECR as considered in Tariff order	Rs/ KWh	0.965	0.965	0.965	
v	Change in ECR (t-u)	Rs/ KWh		0.293	0.287	
w	Net Generation during the Period	KWh		289,740,000	294,289,690	
x	FCA Claim for the Period (vXw)	Rs		84,893,820	84,461,141	169,354,961

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Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Dr. Shyama Prasad Mukharjee Thermal Power Station - DSPM TPS

	Description	Unit	Considered in Tariff order	For Month of Oct-16	For Month of Nov-16	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)		0.20042999	0.22101356	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.20042999	0.22101356	
d	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.000400860	0.000442027	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.200029130	0.220571533	
g	Amount charged by the Coal / Lignite Company	(Rs.)		338024463.93	374,132,648.85	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Net amount Charged by Coal Company (g+h)	(Rs.)		338,024,463.93	374,132,648.85	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f \times 10^6))$	Rs/MT		1689.87619	1696.196439	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		1689.87619	1696.196439	
m	Transportation Cost Paid to railways	Rs		41263234.00	43550403.00	
n	Transportation Charge rate paid to Railways $(m/(f \times 10^6))$	Rs/MT		206.29	197.44	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			206.29	197.44	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,525.70	1896.17	1893.64	
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29	3280.29	3280.29	
s	Normative SHR	Kcal/ KWh	2,500	2,500	2,500	
t	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
u	GCV of Secondary Fuel (Oil)	Kcal/ml	10.00	10.00	10.00	
v	Normative Auxiliary Consumption	%	9.00	9.00	9.00	
w	ECR for the Period= $((s-(t \times u))/(r) \times (q/1000))/(1-v)$	Rs/ KWh	1.275	1.585	1.583	
x	ECR as considered in Tariff order	Rs/ KWh	1.275	1.275	1.275	
y	Change in ECR (w-x)	Rs/ KWh		0.310	0.308	
z	Net Generation during the Period	Kwh		332,212,500	326,275,000	
aa	FCA Claim for the Period (yX z)	Rs		102,985,875	100,492,700	203,478,575

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Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Marwa Thermal Power Plant - MTPP

	Month	Unit	Considered in Tariff order	For Month of Oct-16	For Month of Nov- 16	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)	-	0.18241827	0.19384500	
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-			
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)		0.18241827	0.19384500	
d	Normative Transit & Handling Losses	%	0.80%	0.80%	0.80%	
e	Normative Transit & Handling Losses (cXd)	(MMT)		0.001459346	0.001550760	
f	Net coal / Lignite Supplied (c-e)	(MMT)		0.180958924	0.192294240	
g	Amount charged by the Coal / Lignite Company	(Rs.)		568,504,768.77	520,555,153.63	
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Net amount Charged by Coal Company (g+h)	(Rs.)		568504768.77	520555153.63	
j	Rate of Coal for the period Charged by Coal Company = $(i/(f \times 10^6))$	Rs/MT		3141.623282	2707.076164	
k	Rate of Bonus payable to Coal Company	Rs/MT				
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT		3141.623282	2707.076164	
m	Transportation Cost Paid to railways	Rs		37,486,027.00	40,527,618.00	
n	Transportation Charge rate paid to Railways $(m/(f \times 10^6))$	Rs/MT		207.15	210.76	
o	Other Charges (per Ton) towards transportation	Rs/MT				
p	Total per ton Transportation Charges (n+o)			207.15	210.76	
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,535	3,349	2,918	
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29	3,280.29	3,280.29	
s	Normative SHR	Kcal/ KWh	2,378	2,378	2,378	
t	Normative Specific Oil Consumption	ml/ KWh	0.50	0.50	0.50	
u	GCV of Secondary Fuel (Oil)	Kcal/ml	10	10	10	
v	Normative Auxiliary Consumption	%	5.25	5.25	5.25	
w	ECR for the Period= $((s-(tu))/(r) \times (q/1000))/(1-v)$	Rs/ KWh	1.2	2.557	2.228	
x	ECR as considered in Tariff order	Rs/ KWh	1.20	1.20	1.20	
y	Change in ECR (w-x)	Rs/ KWh		1.357	1.028	
z	Net Generation during the Period	Kwh		275,246,000	213,741,250	
aa	FCA Claim for the Period (yX z)	Rs		373,508,822	219,726,005	593,234,827

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Fuel Cost Adjustment calculation for the 4th Bi-Monthly period of FY 2016-17.

All Figures in Rs.

Name of Plant	Oct-16	Nov-16	Total
KTPS	143,708,808	60,860,246	204,569,054
HTPS	145,370,924	131,717,762	277,088,686
DSPM TPS	102,985,875	100,492,700	203,478,575
KW Extn	84,893,820	84,461,141	169,354,961
MTTPS	373,508,822	219,726,005	593,234,827
Total	850,468,249	597,257,854	1,447,726,103

Fuel Cost Adjustment calculation for the 4th Bi-Monthly period of FY 2016-17.

1,447,726,103

RUPEES ONE HUNDRED FORTY FOUR CRORES SEVENTY SEVEN LAKHS TWENTY SIX THOUSAND ONE HUNDRED THREE ONLY

As per CSERC order the above amount of FCA shall be claimed as mentioned below:-

All Figures in Rs.

Month	KTPS	HTPS	DSPM TPS	KW Extn	MTTPS	Total
Feb-17	102,284,527	138,544,343	101,739,288	84,677,481	296,617,414	723,863,053
Mar-17	102,284,527	138,544,343	101,739,287	84,677,480	296,617,413	723,863,050
Total	204,569,054	277,088,686	203,478,575	169,354,961	593,234,827	1,447,726,103

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